

**Children and New Media. A Psychosocial Approach to Understanding how
Preadolescents Make Sense of Online Risks.**

Lorleen Farrugia

Department of Psychology

**A thesis presented to the
Faculty for Social Wellbeing at the University of Malta for the degree of Ph.D.**

September 2020



L-Università
ta' Malta

University of Malta Library – Electronic Thesis & Dissertations (ETD) Repository

The copyright of this thesis/dissertation belongs to the author. The author's rights in respect of this work are as defined by the Copyright Act (Chapter 415) of the Laws of Malta or as modified by any successive legislation.

Users may access this full-text thesis/dissertation and can make use of the information contained in accordance with the Copyright Act provided that the author must be properly acknowledged. Further distribution or reproduction in any format is prohibited without the prior permission of the copyright holder.

DECLARATION

I, the undersigned, declare that this thesis is my original work, and has not been presented in fulfilment of other course requirements to the University of Malta or any other University.

Lorleen Farrugia

14th September, 2020

ACKNOWLEDGEMENTS

My heartfelt gratitude goes to my supervisor, Prof. Mary-Anne Lauri B.A. (Hons)(Melit.), M.Sc.(Lond.), Ph.D.(Lond.), C.Psychol., who was of invaluable support and insightful guidance during this PhD. Working with her has been an enriching learning experience.

I am also indebted to my co-supervisor Prof. Giovanna Mascheroni for also guiding me through this work, and to Prof. Josef Lauri for his assistance with the quantitative components.

I would also like to thank Ms Marlene Borg, Rev. Dr Joseph Borg, Ms Roberta Camilleri, Mr Stephen Camilleri, Ms Rosette Cini, Dr George Cremona, Rev. Mark Ellul, Ms Roberta Farrugia Debono, Mr Melchiorre Farrugia, Mr Godfrey Grima, Mr Dunstan Hamilton, Ms Christina Lauri, Prof. Brian O'Neill, Dr Marta Sant, Mr Heath Schembri, Ms Jo Christine Scicluna, Mr Mark Spiteri, Ms Roberta Sultana, Ms Gwyneth Zammit and Ms Sylvana Zammit Pulo for their help in accessing relevant information and the research participants.

I would like to thank my family and dear friends for their constant support throughout this journey. In particular, I thank Ms Rachel Curmi for the time and energy spent in proofreading and commenting this work.

Further thanks are due to the children whose voices are presented in this study. To them I owe much. This study would not have been possible without their insights about online risks.

Finally, I thank God, who, I believe, has guided me from the very beginnings to the very end of this project.

ABSTRACT

This mixed methods research employs social representations theory to explore the way preadolescents (9-12 years) make sense of online risks. Children's representations of online risk impact their safety behaviours; however, children's voices are rarely heard and strategies to safeguard children are often based on adult's cognitions, perceptions and assumptions. Data collection was carried out in three phases: a survey (n=1097) to gain a cross-sectional understanding of children's internet usage and risk experiences, six focus groups (n=49) to explore children's sensemaking of risk, and finally, Latent Class Analysis (LCA) was applied to the quantitative data collected. Four categories resulted from the LCA (Audacious Explorers, Savvy Adventurers, Ambivalent Users and Cautious Players), based on children's risk perceptions, risk experiences, skills and safety measures used. To corroborate these classes, children (n=207) were asked to identify which description of the four categories they related to most. The conclusions are that children's cognitions reflect anchoring and objectification processes related to their own and their peers' experiences, offline risks, stereotypes, adult and media discourses. Other children only perceive risks when they are tangible, while others have self-serving biases. The main outcome of this study is that protecting children online, needs a multi-faceted and multi-stakeholder approach. Children's representations of online risks originate, circulate and reflect the systems surrounding the connected child, although such representations do not necessarily produce an accurate assessment of online risks. Shifting these representations requires a shift within the same systems where children's diverse social representations of risks develop.

Keywords: connected child, social representations, online risk, online safety, preadolescents, self-serving biases, mixed-methods, media literacy

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENTS	iii
ABSTRACT.....	iv
TABLE OF CONTENTS	v
LIST OF FIGURES	xi
LIST OF TABLES	xii
LIST OF ACRONYMS	xiv
Chapter 1. Contextual and Theoretical Background to the Study.....	2
Rationale and Aims of the Study	3
Research Gaps Addressed	4
The Promise of New Media	4
From 2005 to 2020 – Internet Accessibility and Online Connectivity.....	5
Online Risk: Always On, Always Available.....	8
Does Risk imply Harm?	9
Understanding Children, New Media and Risks.	10
Underage use of Social Networking Sites	11
Social Representations Theory as a Theoretical Framework.....	12
Criticism of Social Representations Theory.....	17
Usefulness of the Theoretical Framework.....	18
Researcher’s Background.....	21
Research Phases	22
Structure of the PhD Thesis	23
Chapter 2. Preadolescents’ Social Representations of Online Risk: A Literature Review	26
.....	26
A Model for Understanding Preadolescents and the Internet	27
The Connected Child.....	28
Preadolescence – A Phase Characterised by Changes	29
Gender	30
Psychological Factors.....	31

Preadolescents' Internet Use	38
Preadolescents' Online Activities	40
Online Risks in the Preadolescent Years	43
The Role of Risk Perception in Prevention Strategies	57
Harm as a Result of Online Risk	64
Coping with Online Risk	65
The Child's Immediate Context	69
Parents	70
Other Family Members	77
School	78
Peers	80
The Maltese Context	82
Cultural Context	83
Socio-Economic Status and the Digital Divide	84
The Maltese Regulatory Framework	85
Education System	87
The Media and Moral Panics	91
Social Representations Theory, Children and New Media	92
Chapter 3. Methodology	96
Philosophical Assumptions and Research Paradigms	96
Choosing a Research Strategy	98
Researcher's Philosophical Stance	99
A Research Strategy for Social Representations	101
Pragmatism - A Paradigm for Mixed Methods Research	103
Abductive Reasoning, Intersubjectivity and Transferability	106
Criticisms of the Pragmatic Approach	108
Sequential Mixed Methods Research Design	109
Research Methods	110

Phase One	110
Phase Two	111
Phase Three	112
Ethical Considerations	112
Biases, Positioning and Reflexivity	113
Conclusion	115
Chapter 4. Phase 1 – Survey: Mapping how Preadolescents Perceive and Experience	
Online Risk.....	117
The Data Collection Tool.....	117
Data Collection & Ethical Considerations	118
Validity and Reliability	121
Data Analysis	121
Children’s Internet Access is Widespread and Frequent.....	122
Risk Perceptions	132
Risk Experiences	135
Digital Skills and Safety Measures	142
Limitations of the tool and methodology used.....	145
Concluding Remarks.....	146
Chapter 5. Phase 2 – Focus Groups: Understanding Children’s Sense-Making of Online	
Risks.....	149
Focus Groups as a Research Method	149
Participants	150
Preliminaries and Ground Rules.....	153
Assent and Pre-Focus Group Sheet	154
Procedure.....	154
Ethical Issues	156
Data Analysis	157
Anonymising and Transcribing the Data.....	157
Thematic Analysis and NVIVO	158

Themes	160
Theme 1: Handle with care	164
Theme 2: Tangible considered risky	167
Theme 3: Making risk less ‘fuzzy’	169
Theme 4: Perceived benefits supersede concerns	178
Theme 5: Knowing with confidence	182
Theme 6: Favouritism towards themselves	186
Theme 7: The family: Multiple and contrasting roles	191
Limitations	197
Rigour and Trustworthiness of the Research Process	199
Credibility.....	200
Transferability	201
Dependability	201
Confirmability	202
Conclusion	203
Chapter 6. Phase 3 – Latent Class Analysis: Exploring Intra-Group Differences	205
Part 1 - Latent Class Analysis of the Survey Data	206
The LCA model.....	209
The Four Classes	212
Regressing on the covariates	213
Summary of the Main Findings.....	222
Part 2 - Corroborating the Latent Class Analysis	224
Method.....	224
Findings	227
Limitations.....	235
Conclusion.....	237
Chapter 7. Discussion and Conclusion.....	239
Addressing the Research Gap	239

Summary of the Main Findings	240
Children’s Social Representations of Online Risks	241
Representational Field	242
Metaphors and Shared Meanings	243
Metaphors of Online Risk	243
Metaphors of the Internet	250
Shared Beliefs.....	255
Factors that Shape Children’s Social Representations of Online Risk	260
Implications of the Findings	262
Looking beyond age, gender and time spent online	262
Should Preadolescents be on Social Networking Sites?	263
The Lacuna of Skills Needs to be Addressed.....	265
Parents Need to Live Up to the Expertise Children Attribute to Them.	268
Children Need Good Role Models	270
Children’s Online Safety is a Shared Responsibility	272
Establishing a Common Understanding of Risk	276
Recommendations for Practice and Policy	278
Recommendations for Families.....	281
Recommendations for Educators.....	284
Recommendations for Policy	286
Recommendations for Industry	290
Recommendations for Further Research	293
The Researcher’s Journey	296
Strengths of the Study	299
The Mixed Methods Approach.....	300
Preadolescents’ Sense-Making on Online Risk.....	301
Evidence-based Recommendations for Policy and Practice	301
Limitations of the Study.....	301

The Participants.....	302
The Tools.....	302
The Time Lapse.....	303
Contribution to Knowledge.....	304
References.....	308
Appendix 1.....	345
Appendix 2.....	346
Appendix 3.....	354
Appendix 4.....	356
Appendix 5.....	357
Appendix 6.....	358
Appendix 7.....	359
Appendix 8.....	360
Appendix 9.....	361
Appendix 10.....	362
Appendix 11.....	363
Appendix 12.....	364
Appendix 13.....	366
Appendix 14.....	370
Appendix 15.....	376
Appendix 16.....	380
Appendix 17.....	381
Appendix 18.....	383

LIST OF FIGURES

Figure 1 - Contexts of the Connected Child	28
Figure 2 - Time Spent Online	125
Figure 3 - Children's Online Activities	127
Figure 4 - Children's Perception of the most Dangerous Online Risk	134
Figure 5 - Perception of the most Dangerous Online Risk by age	135
Figure 6 - Number of Devices Accessed as Predictor of Latent Class Analysis	215
Figure 7 - Number of General Accounts as Predictor of Latent Class	216
Figure 8 - Number of Picture Accounts as Predictor of Latent Class.....	218
Figure 9 - Number of Game Accounts as Predictor of Latent Class	219
Figure 10 - Invented Date of Birth as Predictor of Class Membership	220
Figure 11 - Seen Logo as Predictor of Latent Class	221

LIST OF TABLES

Table 1 - Risks Relating to Children’s Internet Use	45
Table 2 - Research Paradigms	98
Table 3 - Distribution of Participants' Ages and Gender	120
Table 4 - Children’s Internet Access	122
Table 5 - Devices Used by Children	123
Table 6 - Chi-Square for Internet Access from Own Room and Use of Portable Devices	124
Table 7 - Comparison of Online Activities - Maltese and European Children.....	128
Table 8 - Accounts Children Have	129
Table 9 - Comparison of Children who have Facebook Accounts	130
Table 10 - Child's Information Available Online	131
Table 11 - Children's Perceptions of Risks Online	132
Table 12 - Risk Experiences According to Age	136
Table 13 - Children’s Experiences of Risk, Coping & Harm.....	137
Table 14 - Age and Gender Differences in Risk Experiences	141
Table 15 - Digital Skills.....	142
Table 16 - Average Digital Skills	143
Table 17 - Preferred Internet Safety Information Sources.....	144
Table 18 - Safety-related Activities	145
Table 19 - Participant Demographics	152
Table 20 - Themes identified from the Thematic Analysis	162
Table 21 - Manifest Variables	207
Table 22 - Covariates	208
Table 23 - BIC Values	210
Table 24 - Estimated Class Population Shares	210
Table 25 - Percentage of Each Class who would Respond ‘Yes’ to Each Statement.....	211
Table 26 - Summary of LCA Descriptions	213
Table 27 - Significant Covariates	213
Table 28 - Probabilities of Class Membership for Number of Devices Used	215
Table 29 - Probabilities of Class Membership for Number of General Accounts Held.....	216
Table 30 - Probabilities of Class Membership for Number of Picture Accounts Held	217
Table 31 - Probabilities of Class Membership for Number of Game Accounts Held.....	218
Table 32 - Probabilities of Class Membership for Invented Date of Birth.....	220
Table 33 - Probabilities of Class Membership for Seen Logo.....	221
Table 34 - Descriptions of the Latent Classes.....	225
Table 35 - Age and Gender of Corroboration Exercise Participants	227
Table 36 - Frequencies of Class Chosen for Self and Friend Compared to LCA Estimated Class Population Shares.....	228
Table 37 - Crosstabulation of Letter Self with Letter Friend	229
Table 38 - Crosstabulation of Letter Chosen for Self with Negative Experiences Online	231
Table 39 - Crosstabulation of Letter Chosen for Self with Perception of Risk	232
Table 40 - Chi Square Tests for Age, Gender and Letters Chosen for Self and Friend	232
Table 41 - Crosstabulation of Gender with Letter Chosen for Self	233
Table 42 - Crosstabulation of Gender with Letter Chosen for Friend	234
Table 43 - Crosstabulation of Keywords with Letter Friend	235

Table 44 - Metaphors of Online Risks.....	244
Table 45 - Metaphors for Online Risks	251
Table 46 - Shared Beliefs Related to Online Risk	255
Table 47 - Summary of Recommendations	280
Table 48 - Results of the Regression Analysis	372
Table 49 - Significant Regression Coefficients	374

LIST OF ACRONYMS

AoIR	Association of Internet Researchers
BIC	Bayesian Information Criterion
CAQDAS	Computer-Assisted Qualitative Data Analysis Software
COPPA	Children's Online Privacy Protection Act
DIB	Dysfunctional Internet Behaviour
DLAP	Directorate for Learning and Assessment Programmes
DQ	Digital Intelligence
EU	European Union
FOMO	Fear of Missing Out
FREC	Faculty Research Ethics Committee
FSWS	Foundation for Social Welfare Services
GDPR	General Data Protection Regulation
GTA	Grand Theft Auto
IAT	Internet Addiction Test
LCA	Latent Class Analysis
MCA	Malta Communications Authority
MEDE	Ministry for Education and Employment
MUD	Multi-User Domain
PEGI	Pan European Game Information
PSCD	Personal, Social and Career Development
SIC	Safer Internet Centre
SID	Safer Internet Day
SMT	School Management Team
SNS	Social Networking Sites
UREC	University Research Ethics Committee
VET	Vocational Education and Training

CHAPTER 1

CONTEXTUAL AND THEORETICAL BACKGROUND TO THE STUDY

Chapter 1. Contextual and Theoretical Background to the Study

New media provide children with endless possibilities for learning, fun and exploration, and children find these thrilling. Yet, some adults are very apprehensive; the risks that new media pose for children are incontrovertible. The sensationalised way in which media reports risks such as cyberbullying, sexting, online grooming and excessive use, contributes to their anxiety. However, the way adults and children conceptualise risk is different. Children's voices about online risk are seldom heard even though understanding their perspectives is useful to establish a common ground. This work aims to address this gap through the research question: How do children make sense of risks in new media? The premise is that the way children make sense of online risks influences their risk perceptions and consequently how they behave online.

In their 2001 review on adolescent development, Steinberg and Morris do not include the internet as one of the contexts in which development takes place. However, in less than 20 years, it is now assumed that the role of the internet must be considered even in early and preadolescent childhood development. The internet has become one of the contexts which children inhabit, and which is integral to their developmental processes, such as the development of one's self-concept and identity. Such processes do not happen in a vacuum, but against the background produced by the children's environment, the media environment, and more specifically the online world which is one of these environments (Paus-Hasebrink et al., 2009).

Rationale and Aims of the Study

Through the several efforts Malta has undertaken to enhance ICT literacy (Agius, 2012), 86% of Maltese households have a broadband connection (Eurostat, 2020) and 77% of Maltese children go online daily using a mobile phone (Smahel et al., 2020). This implies that Maltese children have access to online opportunities and consequently, they are also exposed to online risks. It is hence essential to delve deeper into the understanding of online risks that Maltese children perceive and experience in a way that enables policy to be developed and interventions to be targeted according to their needs. Besides, information on how the population of Maltese children access and use the internet is rather fragmented and needs to be solidified in order to ensure that the policies and interventions are also suitable for the different experiences and exposure to risk, or otherwise, identified from this study.

Based on these reasons, this research attempts to identify the social representations that Maltese preadolescents hold in relation to online risk, through the following questions:

1. How do children aged 9-12 go online and what do they use the internet for?
2. What online risk experiences are these children exposed to?
3. How do children manage online risks?
4. How do children talk about online risks and what do these risks mean to them?
5. What are preadolescents' representations of risks in new media?

To achieve these aims, this research presents a quantitative picture of children's internet use which also explores the risks these children encounter while they are online. Subsequently, the research aims to qualitatively understand children's experiences of online risks and what meanings they assign to them. The third phase involves further analysis of the quantitative data in light of the qualitative findings and a final phase of data collection to support these findings. This work has valuable implications for policy-making. Relevant suggestions for policy in managing online risks for preadolescent children are proposed, together with practical recommendations for the different stakeholders.

Research Gaps Addressed

This work aims to address several research gaps. Often, research about children and the online risk focuses on adolescents (Livingstone & Haddon, 2008). Moreover, recently there has been an increased interest in children aged 0 to 8 years and how they relate to technology. This leaves the preadolescent years between 9 and 12 years of age relatively unexplored. These years have the potential to be both formative yet also damaging. This choice to focus on this age group aims to contribute to research regarding preadolescents. Besides, the child-centred perspective adopted will focus on the way children think about online risks and how they represent them. This will enable adult stakeholders to understand the children's needs in this regard instead of making assumptions about them. As a result, any actions taken can be based on children's actual online experiences rather than on what adults assume these to be.

Social representations theory is the conceptual framework adopted for this research. This research also contributes to the influential work carried out by Duveen and his colleagues in researching children and social representations. The project thus aims to provide evidence-based policy implications and practical suggestions for different stakeholders through understanding preadolescent's social representations of risks in new media.

The Promise of New Media

James (2009) defines 'new media' as "technologies that people use to connect with one another" (p. 6) that have interactive, dialogical and participatory components. This open definition can incorporate the several gadgets that can access the internet, such as smartphones, tablets, laptops, game consoles and smart devices which have these three components. Adopting an open definition of new media is suitable given that the technological field continues to develop at a fast rate. Such a definition is especially useful for discussing issues related to children who "move freely among diverse and convergent

technologies” (Ringrose, et al., 2012, p. 12). For the purpose of this work, the terms ‘internet’ or ‘online’ will be used in the context of James’ definition provided for new media.

Initially online technologies were seen as an alternative world (McEwen & Wellman, 2013). This may be true for some who would prefer the ‘virtual’ world rather than the ‘real’ world. However, online technologies have increasingly become embedded and essential to everyday life, that they can hardly be considered separately (McEwen & Wellman, 2013). In light of this progressive seamless integration of mobile, internet and face-to-face interaction, it is evident that the individual has the opportunity to have at hand information, and find support and belonging, throughout life, including throughout childhood.

From 2005 to 2020 – Internet Accessibility and Online Connectivity.

The internet and social media have become implicated in all the activities and spheres of our everyday lives. Digital media and technologies surround us, and the smartphone and tablet revolution has made the online world increasingly mobile, providing the possibility of being online constantly, at any time of the day, anywhere in the world, without the necessity to be wired to a fixed place. Children grow up in a world where the internet is ever-present. In Malta, the percentage of children with access to the internet was slightly above 98% in 2014 (Lauri et al., 2015). Findings from Cefai and Galea (2016) confirm the high accessibility of computers and internet at home for Maltese children, with 96.5% of children aged 10 and 12 having such access. The EU Kids Online research also confirms that 77% of Maltese children use mobile devices daily as a means to access the internet (Smahel et al., 2020), Based on the widespread accessibility of the internet for children, Malta can be classified as a ‘high-use’ country (Livingstone et al., 2011a).

The UK is another ‘high-use’ country and the annual analysis of data by the UK communications regulator, OfCom is a clear indication of how the internet’s landscape is rapidly changing and that children are at the epicentre of these rapid changes. In 2011 there was a growth in household internet access, and more children were using smartphones and

social networking sites (SNS). Moreover, 34% of children aged 8 to 12 had a profile on a site that would normally require one to be 13 years to have a profile (OfCom, 2011). Children used a wider range of devices to go online and younger children were increasingly creating profiles on SNS and becoming friends with people they never met (OfCom, 2012). In 2013, tablet use tripled; children between 8 and 11 used tablets mostly for audio-visual materials and games. The use of smartphones for SNS was most common in children aged 12 to 15 and although the number of children below 13 who had a social networking profile decreased, the trends indicated that a range of different SNS were being used by children (OfCom, 2013). The ownership of tablets continued to increase in 2014 and for the first time since 2005, internet access via personal computers or laptops decreased. Some children also indicated that they preferred YouTube over television (OfCom, 2014, 2015). Another first was when in 2016, children reported spending more time online than watching TV (Ofcom, 2016). In the following years, children's media use reflected the rise of video-on-demand platforms and their social media use continued to diversify and some platforms (such as TikTok) increased in popularity (OfCom 2018, 2019).

Research shows that internet use is also increasing in children below the age of 9 (Holloway et al., 2013), which implies that children start having a digital footprint from a very young age. The digital footprint is the "collective, ongoing record of one's web activity" (O'Keeffe et al., 2011, p. 802). A study by the European Commission (Chaudron, 2015), confirms that young children (0-8) grow up in environments that are 'media-rich'. Tablets are the device of choice for them, and smartphones are also often used. Children's cognitive development, their digital skills, and a more individual use of digital technologies at this young age pose limits on the way they access and use such technologies. Research also demonstrates that children learn to interact with technology by observing members of their family, who seems to be very influential in helping children become acquainted with new technology. This finding is noteworthy for those children who do not have such models to

follow. Such children still learn about technology from different sources, but their experience is different from that of other children who have good role models and support. Irrespective of where they learn about technology, children start interacting with digital media technologies almost from birth, and the internet and mostly mobile devices have an important role throughout their childhood development. However, most research seems to focus specifically on early childhood or else children aged 9 to 16 are banded together.

Besides the widespread use of the internet and its accessibility through a range of devices from a very young age, one of the principal characteristics of Web 2.0 is its participatory nature. In O'Reilly and Battelle's words "data is being collected, presented and acted upon in real time" (2009, p. 1). Participation is a new form of connectivity which has gained widespread recognition and acceptance. Everything happens in real time online, and anything that happens in the real world is often reflected online, often on social media. Being connected is quickly becoming necessary for children to have a full social experience. Moreover, social media have provided new possibilities of interaction, both with those close to us and also acquaintances. They have also become a space for making new connections.

Apart from the impact on the personal level, it is also very easy to think of examples where the internet has had an influential role on a larger scale. Two cases in point are Barack Obama's use of the internet and SNS in his 2008 election campaign (Stirland, 2008a; 2008b) and the role social media played in the Middle Eastern uprisings (Boyd, 2011, Castells, 2012). Nonetheless, one does not even have to be an adult to use the internet to bring change. When nine-year old Martha Payne started taking pictures and reviewing her school lunches in her blog (Payne, 2012), she fuelled an international debate about healthy school lunches. These, albeit being only a few, are clear examples of how the online media provide a wide range of opportunities, sometimes even unexpected ones, for practically anything, and for anyone, including children.

Online Risk: Always On, Always Available.

While the online world is rich with opportunities, in this context it also common to be faced with risky opportunities (Livingstone, 2008). This is even more pertinent when it comes to children, given their developmental and exploratory needs. In the context of researching children and new media, Staksrud and Livingstone (2009) define online risk as being the “heterogeneous set of intended and unintended experiences which increase the likelihood of harm to the internet user” (p. 4). These experiences are categorised according to whether they involve (i) content risks, where the person is exposed to inappropriate or unwelcome communications, (ii) contact risks, where the person is involved in risky interactions initiated by others, often adults, and (iii) conduct risks, where the person is the creator of content or contact risks (Staksrud and Livingstone, 2009).

The now defunct British Educational Communications and Technology Agency (BECTA) classified online risks as being related to content, commerce, contact and culture and later changed this classification to cyberbullying, identity frauds, internet attacks and social networking (Atkinson et al., 2009). The former classification of content, contact and conduct risks, where children are recipients, participants or actors respectively (Hasebrink et al., 2009), seems to be broadly applicable to the changing nature of new media. Such a classification would be able to incorporate any new risks that emerge. When ‘online risk’ is mentioned in this work, it refers to this definition and classification by Staksrud and Livingstone (2009). Currently, the most frequently mentioned online risk experiences are cyberbullying, stranger danger and encountering violent or sexual content that is inappropriate for the child’s age. These could all result in psychological harmful effects.

Online, children have to negotiate between opportunities and risks, and sometimes, the boundaries between the two are rather blurry (Livingstone & Haddon, 2012). Most of these risks already existed before the online world came into being. It cannot be argued that the internet brought about new risks. However, these risks have been reshaped by the online

environment (Livingstone & Haddon, 2009), and these risks are now presented in a format that is “always on, always available” (UKCCIS, 2012, p.8). This happens in addition to the recording of events, an ease of access and the possibility of copying, together with a significant degree of permanence. Yet, the fact that this reality often has to be mediated by adults brings about diverse challenges because often they speak a different language from children.

The exposure to opportunities and consequently to risks is a reality for all internet users and this includes all children ranging from babies a few months old to the late teenage years. At one extreme is the tragic story of 12-year-old Amanda Todd who committed suicide as a result of relentless cyberbullying after sharing a nude picture with a stranger online, which was then spread virally through social media. Children can encounter risky situations such as cyberbullying, contact with strangers or access to content that is inappropriate for them in their daily lives. Such risks can place them in a position where they can be harmed if they do not have the tools to handle such experiences well. Internet use by Maltese children is widespread, and such high-use in other European countries reflected a positive exposure to several opportunities, but the exposure to risk was also prominent. This calls for further research about how Maltese children experience the internet to understand their exposure to risk experiences.

Does Risk imply Harm?

When faced with the many possibilities of online risk specifically in the case of children, it is easy to understand why many take a ‘moral panic’ (Cohen, 1972) stance, especially since the media tends to inundate the public with reports of online experiences gone awry (Cassell & Cramer, 2007). However, Tynes (2007) argues that, limiting children’s and adolescents’ participation in the online world to prevent them from encountering risk would be a disservice to them since the possible benefits prevail over the possible risks. Research (D’Haenens et al., 2013; Ringrose et al., 2012) shows that exposure to risk also

increases resilience, a valuable ability for young children to attain. Moreover, the exposure to risk is not directly related to harmful consequences (Livingstone & Haddon, 2012; Smahel et al., 2020) implying that not all exposure to risk can be dangerous. On the other hand, according to the latest EU Kids Online Survey, (Smahel et al., 2020), 25% of European children were bothered or upset by something online. However, for the children who are harmed by risky experiences, the aftermath could ensue into adulthood.

Yet, the relationship between ‘exposure to risk’ and ‘risk resulting in harm’ is a complex one. To avoid this harm, one of the often-proposed solutions is to teach children to ‘manage risk’. However, before arriving at that stage, it is essential to be aware of which risks Maltese children encounter online as well as their experiences and understandings of such online risks. Digital natives (Prensky, 2001a), are well-versed in the online world, and exploring their understanding and experience of online risk provides essential information and tools for their parents, guardians, educators and policy makers. It is when the mediators of children’s online experience are also well-versed in how children understand risks, that they would be able to offer the necessary support when children encounter risks online.

Understanding Children, New Media and Risks.

Children’s understanding of online risk might be incomplete, and the reasons for this are multi-faceted. Primarily, children’s media literacy might be inadequate and thus they could be unaware of specific risks. Online risk might also be perceived differently than other risks. Parents and teachers might be less attuned to online risks and preventive strategies might not be targeting the online world enough. Moreover, when children are exposed to online opportunities this equips them with useful skills for navigating the online world. Although this also exposes them to risks, it also builds resilience as they would be able to apply the skills learnt in dealing with such risks. Online risks are possibly sugar-coated with the element of fun, surprise or curiosity, which might make children less able to perceive risks, especially if they are not directly visible or if children feel distant from the risk because

they do not associate the platform to harm (Farrugia et al., 2019). The safety of the home or school environment might not be associated to risk and thus, when children go online in these environments, they could be less likely to perceive risks. Finally, the role of developmental issues, such as identity formation and affirmation needs might be more salient than the possibility of encountering online risks. These are all potential factors that could be involved in children's perceptions, experiences and representations of online risks. A thorough understanding of such factors, and possibly others, is necessary to understand and present solutions to help children manage online risk.

Underage use of Social Networking Sites

Among the activities children carry out online, some also use SNS (Warmann, 2011; Magid, 2011). For children below the age of 13, the scenario is potentially more problematic. According to the American Children's Online Privacy Protection Act - COPPA (O'Keeffe, et al., 2011), websites cannot collect information on children under 13 years of age without their parents' permission. Consequently, most SNS which are governed by US laws abide by these regulations and set the age of 13 years as a milestone when a child can sign up and have their own profile. Despite these regulations, children below 13 years are known to be active on SNS (Broadbent et al., 2013). Unless age-verification systems are in place, it is very difficult to ascertain an individual's age at the sign-up stage. In recognising and accepting that younger children have SNS accounts, it is crucial to study their experiences. These children would be exploring what the internet has to offer and possibly participating in online activities that might be inappropriate for their age. They might not have the monitoring of an adult, and that could possibly expose them to further risks. Apart from the lack of research that focuses specifically on children between 9 and 12 years old, who will be referred to as preadolescents, their presence on SNS is another important issue that warrants research with this age group. Based on the reasons presented in this section, this research will focus on how preadolescents understand and make sense of online risks.

Social Representations Theory as a Theoretical Framework

According to Breakwell (2007) social representations theory may be specifically relevant for understanding online risk, as it was originally developed to explain how people make sense of new ideas and new information. Social representation is the process by which what is unfamiliar is shifted to the familiar realm by creating codes and metaphors to classify things. Wagner et al. (1999) explain that “childhood offers a particular arena for the study of social representations, since those very things which are most familiar and taken for granted in the adult world are themselves the focus of children’s cognitive reconstructions” (p. 103). Thornberg (2010) used this framework for analysing children’s social representations on what causes bullying to give a voice to children and explore the way they make sense of bullying, and hence to understand how they react to it. Examining risks from a children’s perspective can provide an understanding of the representations of risk that pertains to those who are directly influenced and affected by such risks.

The processes of anchoring and objectification through which social representations develop (Moscovici, 1984) have a social component, and they are usually interactive and based on shared meanings and communication (Breakwell, 2007). These two processes provide valuable information on how collective thoughts and meanings develop (Höjjer, 2011). *Anchoring* occurs through communication, whereby social representations are anchored into other known social representations thus enabling comparisons, interpretations and transformations of the social representations, and the new is assimilated and incorporated in the existing social representations. *Objectification*, is when an abstract or unknown phenomenon is changed into something concrete, giving the phenomenon meaning, and can thus be perceived and experienced, becoming part of everyday reality and common sense because it loses its newness and abstractness. Berger and Luckmann (1966), also considered common sense knowledge as crucial to discussing the social context in which thoughts and meanings develop. Objectification simplifies complex information, and through links with a

specific person or group, through metaphors or by giving physical properties to the construct, this knowledge becomes part of the representation. Anchoring and objectification produce what Krause (2002) terms “practical and functional knowledge” (p. 607) which enables children to identify risk by linking it to something they can relate to, and they can talk about it and explain how it influences their lives.

Representations are “branches of knowledge” (Moscovici, 1973, p. xi) and this lay thinking is what enables groups to make the world familiar to them. Representations are society’s cognitive framework or a form of ‘common sense’ that we apply in assigning meaning and also relating to our environments (Sammut et al., 2015). Rather than lacking validity, such thinking has “practical value” (Gruev-Vintila & Rouquette, 2007, p. 556) as it corresponds to the meanings assigned to specific beliefs, values and norms within a group. These authors argue that a psychosocial approach is necessary in the study of risk as the representations of risk are rooted in a group’s environment and culture. Risk is not merely a situation which individuals respond to, but “the social representation of risk is inseparable to its elaboration as a social object through culture, communications of all kinds, and collective memory” (p. 557). Thus, an analysis of risk through the framework of social representations not only considers the perceived characteristics of the risk, but also its contextual social and communicative aspects.

Moreover, social representations encompass not only thoughts, but also “feelings being expressed in verbal and overt behaviour of actors” (Wagner et al, 1999, p. 96) implying that both the cognitive and affective aspects are part of the representation. This is useful for understanding risk perception. As Slovic (2010) argues, feelings about risks are a very important aspect of the risk perception process and in making decisions about risk. One of the ways in which we understand reality is through experience, and affect is a very important component of it. The “affect heuristic” (Slovic, 2010, p. xxi), or how good or bad we feel about a stimulus, identifies feelings as important information on which to base our

judgements on risks and benefits. When we rely on affect, this is often quicker and more effective, than if we analyse the pros and cons of a situation (Slovic et al., 2010). The social representations approach provides a way to incorporate the “symbolic, meaning-making and emotive realms... and also the inter-subjective qualities of human experience” (Joffe, 2003, p. 58). Identifying children’s social representations of online risk will not only reveal how they think about these risks, but also the way they feel about them.

Moreover, Jovchelovitch (1996) claims that representations incorporate not just cognition and affect, but also actions as a result of the representations we hold. The way individuals represent risk is related to the way they respond to it. Once social representations are primed or activated, they trigger the semantic knowledge associated to them, and influence the way one sees the world, which in turn then indirectly influence the way one behaves (Garcia et al., 2002). Implicit dyadic oppositions present in everyday lives are part of the individual’s worldview, and once these are established in language and thought, they start generating representations (Markovà, 2015). The ‘self-other’ themata is one form of such thinking in antinomies. It corresponds to the way one positions themselves in terms of the ‘other’. Andreouli (2010) further claims that this positioning also impacts the individual’s identity. Through positioning oneself in relation to the ‘other’, specific qualities are attributed to the other, and thus one also identifies qualities for themselves. Social representations draw on social identities and in turn these identities reconstruct the representations. It seems that social representations not only function to help individuals make sense of the world, but they also define themselves through the positions they take. When positioning themselves in relation to others, children are activating the cyclical and symbiotic relationship between social representations and identity. Their behaviours are based on the knowledge developed through the social representations they hold and the way they identify themselves. This makes social representations theory ideal for the study of children’s risk perceptions as it can

incorporate understanding of their cognitions about the risks, their feelings related to the risks and also their behaviours associated to the risk.

Discussions of online risk and safety are very popular in the media. In his original work on the representations of psychoanalysis by the French Society, Moscovici included media analysis. Krause (2002) identified a relationship between lay thinking and mass media content. The implication seems to be that the mass media have a role in creating, influencing and permeating social representations. Moreover, one's personal experience with a phenomenon also influences the social representations. Once there is a change in the person's involvement with a particular risk, it changes the social representation of that risk (Gruev-Vintila & Rouquette, 2007; Thornberg & Knutsen, 2011). These two aspects are also significant in understanding the social representations held by children with respect to online risks and safety. There is evidence (Smahel & Wright, 2014; Mascheroni et al., 2014) that children's discourse about risk mirrors what is discussed in the media even when they themselves have not had that particular experience of risk, and that their discourse changes when they have experienced a particular risk. An example of the latter is evident in studies about bullying. Thornberg & Knutsen (2011) found that bullies had a self-serving bias and they were more likely to blame the victim when explaining why bullying occurs.

Moscovici was adamant that social representations cannot be equated with individual's attitudes towards social objects (Augoustinos & Walker, 1995). Instead, the theory tries to "reinstatate the collective and social nature of cognitive constructs, like attitudes, beliefs and values" (p. 31). Specifically, this theory is based on the way an idiosyncratic idea originating from an individual representation is transformed and circulated, and becomes something which is widely shared and discussed in the individual's: "social, cultural and collective milieu" (Augoustinos & Walker, 1995, p. 134). The word 'milieu' here implies the environment that surrounds the individual, and which the individual depends on. Individuals are social beings, and one's identity and existence are engrained in what is shared with others.

Children's psychological experiences, including how risk is perceived and conceptualised is influenced by the groups they belong to, specifically their family and their peers, and also the common elements contained in the shared environment such as their schools and the media environment.

Theories of attitudes, beliefs and values often focus on specific aspects, while social representations also include how the representation has been shaped over time (Wagner et al., 1999). Social representations incorporate stable core elements that persist, which are agreed upon and enable communication to occur. Yet, social representations also encompass a dynamism that allows for different configurations of this common sense to emerge. Such dynamic peripheral elements, including attitudes and stereotypes, add relevance and applicability of the social representation to specific realities (Sammut et al., 2015). This dynamism is symbolised as “pockets of novelty on traditions coming from the past” (Jovchelovitch, 1996, p. 123). The role of time in social representations was elaborated upon by Bauer and Gaskell (1999). A representation can be considered to be the relation between the ‘subject’ who owns the representation, the ‘object’ that is represented and the ‘project’ or the context of the object. A representation always contains a minimum of 3 parts (depicted by a triangle): the object, and since a representation always implies the presence of the ‘other’, two subjects. When the time dimension is added to this, it refers to the past and present of the project, which links both subjects through their common ground. Markovà (2017) argues that a child's representations “at any given time is adequately adapted to his or her lived experience” (p. 365). Although young children might not have lived an extended time for social representations develop, they live in a world where social representations are already present. To make sense of the world around them, they adopt existing representations. Identifying which of these representations for online risk they adopt is insightful as it reflects some of the representations that influence and shape their relation to online risks.

Criticism of Social Representations Theory

Apart from the debate regarding whether social representations can be equated to attitudes or not, there are other criticisms levelled towards social representations theory. Despite Moscovici's claims that the vagueness is one of the theory's strengths, it is not always clear how to distinguish social dimensions. The group or category can be a social representation in itself, and if an individual can be considered as satisfying the criteria to be a member of a group, it does not mean that the person partakes in that group identity or necessarily behaves in the same way as that group (Potter & Litton, 1985). To avoid this pitfall in researching social representations, once a group is defined, intra-group differences and also wider external categories need to be taken into consideration as these might be impacting the social representation. In researching social representations, researchers can be influenced by their own representations when creating categories and interpreting the data.

Another issue with social representations is the kind and degree of consensus necessary for something to classify as a social representation. Consensus should not be assumed but rather emergent from the research. Critics argue that in this theory, consensus is given more value than the more postmodern notion of variability, which would reflect the changes that occur according to context and time (Augoustinos & Walker, 1995). Apart from assumptions about consensus, one also needs to consider that consensus at some level does not necessarily imply that there is consensus at all levels. Potter and Litton (1985) consider layers of consensus that distinguish between social representations that are only mentioned but not used and also between those representations used in theory and those used in practice. To avoid losing important nuances in representations, these levels cannot be simply collapsed into one.

Rose et al. (1995) argue that it is erroneous to assume "that consensus requires a static and banal *agreement* between participants at all levels of their interaction" (p.2) similar to the way this is construed in attitude theories and discourse analysis. Indeed, Moscovici himself

renounced Durkheim's collective representations because they were static and could not incorporate the variety and range of representations within a group (Rose et al., 1995). Rather than assuming that there is complete consensus, social representations are based on a degree of consensus that enables interaction. Instead of consensual representations, Rose et al. (1995) propose the notion of a "representational field" (p.4) which can be discussed and negotiated and can tolerate contradictions. The degree of consensus allows the shared meanings to be communicated.

Critics of social representations theory seem to argue that social representations cannot be always gauged empirically. However, these potential pitfalls can be avoided if both qualitative and quantitative methods are used, if researchers are aware of their own representations and assumptions in a way that they do not influence the research, and if the terms used are operationally defined.

Usefulness of the Theoretical Framework

Despite these criticisms, social representations theory is an ideal framework for this research aimed at understanding online risk from the viewpoint of children themselves. Often, risks in childhood are discussed from adults' perspective and this becomes the dominant discourse. Social representations theory is concerned with understanding the contextual factors that influence individuals' belief structures as they "construct risks through lenses tinged with elements of group attachment and of the experience of their in-groups and selves, in terms of both the contemporary imagery they are exposed to and past misfortunes" (Joffe, 2003, p. 68). Risks then take on a reality according to who is experiencing that risk. The way children represent online risks might differ from that of adults. While it is important that adults discuss and try to curtail risky situations for children, it would be a rather useless effort unless the children are given a voice (Livingstone et al., 2014) to express themselves about what the online and risky experiences mean to them.

In presenting a model for research on social representations, Bauer and Gaskell (1999) argue that research on social representations should incorporate specific criteria. Primarily, both the content together with the process of social representations should be analysed. There are no representations without content and this content is influenced by the communication processes that occur in groups. Analysing the content of representations can help identify the anchors, images and behaviours that characterise the representations. Ideally, social representations are studied in the social milieus where they occur, and these cannot be equated only to the specific characteristics of a group (e.g. demographics). Different groups might have different representations and thus both informal and formal modes of communication need to be analysed to identify the plurality of representations. Since several modes of representation are expected, a multi-method approach for analysis is recommended. This implies that a combination of methods is most useful for studying social representations, and thus triangulation of methods is an often-recommended choice (Lauri, 2015). Social representations are best studied when a new issue or concern arises for various groups as often representations are produced when people engage in coping with threats. This is another reason why the theory was chosen for this research since the field of children and online risk is relatively new.

These criteria are a useful framework to support social representations studies since Moscovici himself explicitly refused to create a specific way to conduct such analyses. Yet, this apparent deficiency in the theory is also an asset, as it allows the possibility of an integrative approach that can incorporate different methods (Augoustinos and Walker, 1995). Two important aspects of research in social representations are, “its emphasis on the *content* of social knowledge domains” (p. 155) and also the focus on the structure of social representations to allow the researcher to identify the functions that these structures serve. As Wagner et al. (1999) claim, using social representations as an approach for research increases the opportunity of gathering more aspects of the object of the study, in comparison to other

approaches. There is evidence that the individual discrepancies in representations decrease as age increases. This implies that for younger children, representations might be more varied than for older children.

Gerard Duveen, a social constructivist who researched social representations theory and children, emphasised how children acquire knowledge socially (Marková, 2010). For children, the acquisition of social representations is a part of their developmental processes (Duveen, 1996) and it is the fruit of children's interactions and the systems associated to the representations (Iverson & Duveen, 2005). In analysing children's social representations of the curriculum, these systems were the ways the curriculum was represented by the institution. In the case of online risks, such systems would include the child's immediate context such as the family and the school together with elements in the wider context such as the media itself. Although children develop in a world where social representations already exist, this does not mean that they absorb these representations. Children do draw upon available representations, but also "locate themselves in a particular position within this collective of meaning" (Duveen, 1996, p. 257). Children develop meanings through practical activities and interactions followed by a reflective process. This is evident from the fact that the same data can give rise to different social representations. Duveen (1996) attributes this to the "significance of social identities as the structures mediating between the interpsychological and the intrapsychological" (p. 258).

Duveen and Lloyd (1990) describe three types of transformations to social representations. The first, *sociogenesis*, refers to how social representations are created within groups about specific objects. *Ontogenesis* is the process whereby an individual is engaged with a new social representation to participate in the life of a specific group and thus redefine their social identity. Finally, *microgenesis* is the presence and transformation of social representations through communication, which drives the former two genetic processes. In childhood, ontogenesis often happens without sociogenesis, as at a young age, the possibility

for children to create representations for a group is minimal. To understand children's social representations, their level of cognitive functioning is a crucial element. It is a developmental process that distinguishes whether children are differentiating between the signified and signifier and thus attributing meaning, and therefore social representations are present, or not (Llyod & Duveen, 1990). The social representations that the child forms are intrinsically related to child's groups and position held within them. The child actively participates in interactions with others, children and adults alike, and "is subject to (and exerts) social influence towards the construction of concepts shared within the social group to which it belongs" (Emler et al., 1990, p. 49). Children are likely to engage with several representations available to them in relation to online risk but it is highly unlikely that these representations are created by children themselves. However, in their environment, children can engage with such representations based on their own experiences and understanding of online risks.

Studying representations of risk and new media in young children would also be a useful approach to understand the variety of representations that children have of risks associated to the new media, particularly because exposure to the same material can give rise to different social representations. Moreover, the several areas of inquiry in social representations tend to be social issues that receive substantial coverage from media, and social representations would be a useful approach for researching risks associated to new media, considering that news and information about children's use of new media are constantly in the media.

Researcher's Background

My own relationship with technology started as a love-hate one. As a child, I always found media studies intriguing. Through voluntary work, I was exposed to local community radios, marketing and public relations, and my interest in the field increased. I can still remember the initial frustration with my first computer when I was around 15 years old. I remember warning my younger brother to avoid chat rooms in order to avoid viruses. In my

early explorations of Hi5, as an adolescent I struggled with how much to share or not. I remember discovering the joys and potential of the internet and I definitely remember the first time I was contacted by a stranger. As the request to join Facebook when I was 26 waited in my inbox for a couple of days, I pondered the pros and cons until I finally decided to join the network. Gradually I became adept at understanding and using various technologies and incorporating them in my life. Somehow, I also became a reference point for family, friends and colleagues when they had questions related to technology. From being scared of this world, I shifted to cautiously experimenting, while learning its rules and the sometimes more important, unwritten rules. I realise I also became a digital optimist: appreciative of the opportunities the internet provides, while sometimes critical of the argument that the internet brought about new risks. I believe that these risks are the same old risks we have always had to face, but the internet gives them a different format, and this is why I believe that they need to be addressed differently.

Following my Master degree where I chose to research young people's experiences of self-disclosure on reality TV shows, I was given the opportunity to be part of the EU Kids Online research network. Here I was introduced to the captivating world of children and the internet. This has led me to embark on a research project in a subject matter that has always intrigued me. I wonder how this technology I was gradually introduced to and learnt about progressively, features in the lives of young Maltese children that are born into it and do not know a world without it. I wonder how these children can learn to manage their online experiences of risk and safety. Through this work, I hope to contribute to the field by making the voices of these children heard.

Research Phases

A child-centred approach is adopted in this study to enable a specific focus on children's views and experiences. Social representations theory is often criticised for being vague. Moscovici postulates, that this vagueness is one of the theory's strengths as it allows

room for the “creative generation of ideas” and for “descriptive and exploratory research” (Augoustinos & Walker, 1995, p. 143). This also makes a wide range of methods applicable to researching social representations, as they can generate wider information when compared to a singular method. In line with social representations as a theoretical basis, this research uses both qualitative and quantitative measures to reach the aims outlined above. As Joffe (2003) argues, using multiple methods is a way to ensure that both the individual’s thought processes and context are included in the research: “the goal is to observe the transformations that occur as knowledge circulates between the different realms and to discover how particular group members make meaning of risk messages, and what functions, these meanings have for them” (p. 66).

Phase one of the research consists of a quantitative survey studying the access, use, perceptions and experiences of risk, harm, coping and new media literacy in Malta. I carried out a survey with students attending state, independent and church schools in the 6 demographic regions of Malta. An in-depth analysis of this data provides information about the internet use in children between 9 and 12 and also identifies which risks they are being exposed to and the prevalence of this exposure.

Following the analysis of the quantitative data, the second phase of the research consists of six focus groups carried out with children aged 9-12. These focus groups investigate further the main findings that emerged from the survey in a qualitative way in relation to children’s social representations of risk.

Phase three of the research process uses the survey results to analyse the presence of latent classes in the sample of children. Once classes were identified, a study was carried out to examine whether children could recognise and identify these different classes.

Structure of the PhD Thesis

The next chapter explores the literature related to the various aspects and issues pertaining to preadolescents’ internet use, risk and safety. Developmental and psychological

factors are presented to further inform the understanding of risk and safety as relevant to the children's developmental process and challenges. The role of mediators of the online experiences of children, together with the contexts where these experiences occur are also discussed.

Chapter 3 presents the mixed methods approach used and the philosophical aspects of this methodology. Chapter 4 provides the methodological procedures of the quantitative survey together with the results obtained. Chapter 5 explains the focus group methodology and the results from this phase of the research. Chapter 6 reports the Latent Class Analysis procedure and the findings from the final phase of the research. The conclusions from the three phases are discussed in Chapter 7. In this chapter practical recommendations for stakeholders, together with suggestion for policy-making will be made, based on the findings of the three phases of the research project. This final chapter also discusses my journey in this research, the strengths and weaknesses of this research, together with its main conclusions.

CHAPTER 2

**PREADOLESCENTS' SOCIAL REPRESENTATIONS OF ONLINE RISK:
A LITERATURE REVIEW**

Chapter 2. Preadolescents' Social Representations of Online Risk: A Literature Review

This chapter aims to outline the context in which children's social representations of online risk develop. It will also discuss research specific to children and online risk, and social representations.

A systematic search was carried out to identify relevant publications. The Boolean search for "social representations" AND "children" AND "online risk" for the last 20 years on HyDi yielded 2 results. Widening the search through Google Scholar, the same search operators provided 21 results 11 of which were not relevant, 3 were excluded because they were not in English, 4 were my own works or collaborations, and the remaining 3 were relevant and reviewed. These searches were repeated using "risk" instead of "online risk" in any field. On HyDi, the search including all items published in the last 20 years produced 2022 results. When the search was narrowed to search the title or the subject, only 3 were relevant results, of which 2 were excluded because they were not in English. The same search on Google Scholar resulted in 16,100 items, but when narrowed down to search only in the title, there was only 1 relevant result. These five relevant publications from the systematic search were reviewed and are included in this literature review.

The lack of publications directly related to the topic indicates that children's social representations of online risk are under-researched. The next section presents a model that conceptualises the context in which children's social representations of online risks develop and are shaped. For the purpose of this chapter, publications relevant to this model from the last 20 years will be reviewed and discussed. Where possible, literature relevant to preadolescents and to the local context will be presented.

A Model for Understanding Preadolescents and the Internet

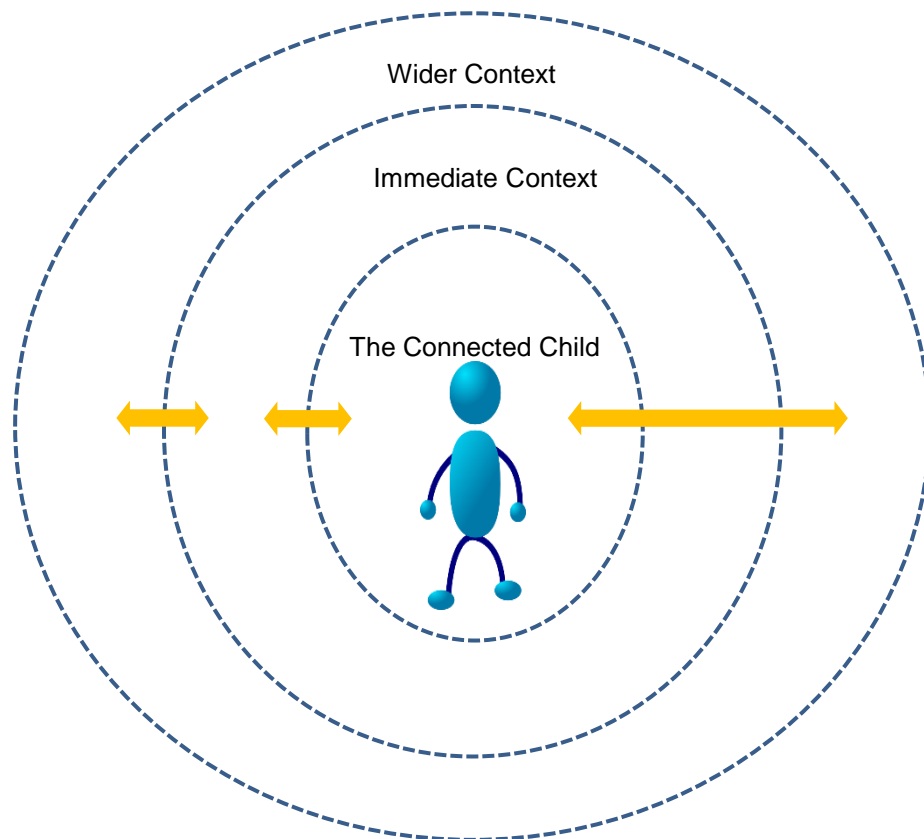
Figure 1 presents the contexts surrounding ‘the connected child’. In this model, the child as an individual is portrayed as the focal point, and is referred to as ‘the connected child’ to signify the connectivity that characterises childhood without making any assumptions about the child’s skills. Children’s experiences online are primarily influenced by their own characteristics, which take place in their immediate context, amongst which are the child’s family, educators and peers. In turn, these systems are part of a wider context of systems (such as the education system) that impact each other. The model is relevant for this research because of three systems, hereafter referred to as ‘the connected child, ‘the immediate context’ and the ‘wider context’ where the content and structure of social representations develop. Children also experience online risks within these three systems. The model is an adaptation of the EU Kids Online model (Livingstone et al., 2011a) and of Bronfenbrenner’s Ecological Model (Bronfenbrenner, 1974, 1994). In these two models, the components at the individual, micro and macro levels form the child’s context. In Figure 1, the three systems interact, are interdependent and interrelated and they also transform and influence each other in multiple directions, giving rise to behaviours and meanings associated to the behaviours.

The EU Kids Online model is widely used to understand the context of the connected child. There are three levels where children’s experiences with new media occur: the individual user, social mediation and the national context. The original version and its revision (Livingstone et al., 2015) are presented in Appendix 1. Buckingham et al. (2007) argue that the moral panics that pervade debates about children, risks and new media interfere with understanding the relevant issues. Yet, if these debates about online risks are analysed critically in relation to the contexts presented (Livingstone & Haddon, 2012), the pertinent insights attained can be used to provide for children’s online safety needs. Listening to the perspective of the connected child is an important aspect, as through this, children’s needs can

be identified and subsequently addressed, rather than intervening based on assumptions or moral panics.

Figure 1

Contexts of the Connected Child



The Connected Child

Prensky (2001a, 2001b) who conceived the distinction between digital natives and digital immigrants, appreciates that this distinction is almost obsolete. The concept of ‘digital wisdom’ Prensky (2011) argues, transcends this distinction, because it incorporates both the wisdom related to how the digital tools are consumed and the wisdom in decision making about these tools. Prensky (2011) specifically states that it needs to be both “learned and

taught” (p.6). While the conceptualisation of children as digital natives seems to imply that children innately know how to be online, the concept of digital wisdom is also problematic. Children have different needs according to their developmental stages, their life experiences and their engagement with new media. If children are to be taught this wisdom, they need to have models and educators to teach it to them in a way that is tailored to these needs. Children are also going online earlier (Holloway et al., 2013; Chaudron, 2015) and they are using a wider range of devices. Different factors at the child’s individual level that could impact the connected child’s online experiences and sensemaking will be presented in the following sections.

Preadolescence – A Phase Characterised by Changes

Children between 7 and 11 years are in their middle childhood, and this phase is followed by early adolescence which happens between 10 and 13 years (Vossen et al., 2014; Steinberg, 2011). During these years, children experience several physical, cognitive and emotional changes. Many preteens start to experience a physical growth spurt, often associated to the beginning of puberty. Girls tend to begin puberty earlier and the growth spurt lasts longer for boys. Children become more self-conscious and often develop concerns about their body image. Another major transition that the majority of Maltese children go through during these years is the shift from primary to secondary education, and some children also change schools as a result of this transition. Cognitively, children start to become more autonomous and independent, develop the capacity for more abstract thought, continue learning how to see others’ point of view, and are usually able to take on more responsibilities. These capacities increase progressively as they grow older.

Socially, their peers take on a more important role, and parent-child conflict starts to emerge. It becomes very important to have friends, same sex friends in particular, and preteens start to experience peer pressure. They also develop infatuations and may start dating. This developmental phase is often an emotionally-laden one. Preteens become abler to

comprehend both their own and others' emotions. Early adolescents want to fit in, experience mood swings and have feelings of insecurity and anxiety which are often related to their self-concept and self-confidence (Clarke, 2009; Vossen et al., 2014; Ito et al., 2008; Berk, 2000; Steinberg, 2011).

These developmental changes are often reflected in their use of technology. Findings (e.g. Paus-Hasebrink et al., 2011) indicate that the internet and SNS provide adolescents with several tools to deal with their developmental challenges. Apart from being a space to carry out the 'normal' developmental processes, new media also enable young adolescents to deal with other unexpected situations they could face, such as being a way to express grief after a peer's passing (Frost, 2014).

Gender

Boys and girls often have similar patterns of internet use and access. Their skills and self-efficacy are also very alike, contrary to popular belief that girls are not as interested in technology or as skilled as the boys are (Livingstone & Helsper, 2010). However, gender has a clear impact on the way children interact with digital media and what they prioritise. Boys often maintain their interest in the fantastic world; while on the other hand, girls develop an interest in real-life entertainment (Vossen et al., 2014). These differences become more pronounced in the different activities children pursue online (OfCom, 2016). Boys tend to use game consoles more, whereas girls are more likely to use their mobile phones to communicate and maintain the friendships formed at this stage. Boys who use SNS are more likely to seek new friends. The self-disclosure that characterises preadolescent years for girls also happens in their online communications. The same amount of self-disclosure in boys happens when they are in their early adolescence (Ogan et al., 2009; Valkenburg et al., 2011; NFER, 2010), although as Krcmar et al. (2015), claim the relationship between gender and online self-disclosure needs to be revisited.

Another gender difference is that boys seem to be more exposed to online risks and this could be attributed to them coming across more pornography online (Livingstone & Helsper, 2010; Smahel et al., 2020). This difference was also found in risk-taking behaviours among older male adolescents and college students (Notten & Nikken, 2014; Fogel & Nehmad, 2009). In Notten & Nikken's (2014) analysis, it seems that personality characteristics such as sensation-seeking might be more apt to explain this finding, rather than gender. This implies that although gender is an important characteristic to consider, attributing specific differences in children's online experiences due to their gender might be overlooking other significant factors.

Psychological Factors

Technology and social media impact children's development (Yardi & Bruckman, 2011) and this influences their well-being. Vossen et al. (2014), further argue that the relationship between media use and children's development is a bidirectional one: "not only should we ask how children's media use influences their development, but also how children's development may influence their media use" (p. 93). This section will address factors in children's psychological development, such as identity development, that influence or can be influenced by new media use.

Identity Development. Identity development is a predominant theme in preadolescence, and the online world is ripe with opportunities for children to explore, experiment and be creative with their identity (Mascheroni et al., 2015) and this supports their developmental needs (Subrahmanyam et al., 2001; Manago et al., 2015). Kroger (2004) considers the development of the self as a result of the processing of life experiences. Identity development is a qualitative process which occurs through responding to life opportunities, and is not a linear process based on quantitative developments. One's identity is transformed into something which is simultaneously similar but also altered through life experiences (Kroger, 2004). Even though identity formation reaches its height during adolescence, this is a

lifelong process, and the foundations begin to form during childhood. Kroger (2004) claims that “identity formation during adolescence cannot be fully appreciated without knowledge of its childhood antecedents and consequent adult states” (p. 7).

Erikson’s work (Erikson, 1968) remains a key theory in understanding identity development through the lifespan because of its emphasis on the ego’s adaptive capacities within the individual’s context (Kroger, 2004). The theory is based on eight different stages that span the individual’s lifespan with a bipolar psychosocial conflict occurring at each stage. The individual’s sense of self develops through social interactions, and basic virtues are acquired. These become useful in resolving the crises that follow, leading to a healthy personality and one’s ego identity status (Erikson, 1968). Identity development occurs through a balanced resolution between both poles that is more leaning towards the positive. When a stage is not resolved successfully, the individual is less able to resolve further stages and thus the personality and sense of self that develop are less healthy. Despite being an age-stage theory, stages can be resolved at a later stage.

Children and preadolescents between the ages of 5 and 12 go through the ‘industry vs. inferiority’ stage (Erikson, 1968). At this stage, the focus shifts outwards; peers’ importance increases in the child’s life and they can influence the child’s self-esteem. The child seeks approval and starts developing a sense of pride based on accomplishments. The virtue of competence develops when the child’s parents, educators and other figures the child identifies with, encourage the child’s initiatives rather than restrict them. This leads to feeling confident in one’s abilities rather than to inferiority and self-doubt. Towards the end of this stage, children approach adolescence and here, the next stage which is that of ‘identity vs. confusion’ where through social interactions and the roles children assume, children’s sense of self develops together with the ability to commit to one’s sense of self (Erikson, 1968).

Although Erikson’s theory does not explain how the resolution of one stage influences the following stages, it connects the important psychosocial developmental processes that take

place through the lifespan (McLeod, 2013). Despite the criticisms levelled towards Erikson's work, particularly related to the universality of the theory and its cultural specificity, and also how not all aspects of the theory can be empirically proven, it still provides important insights into the development of identity. It is also fitting for this work based on children, new media and social representations, as it considers the influence of psychosocial contexts on the child's development, and as presented earlier new media are a central part of the child's developmental context.

SNS provide children with the space to represent and express themselves (Livingstone, 2008). Early on in the internet's lifespan, Turkle (1995) explored how Multi-User Domains (MUDs) have a role in their users' identity construction. She discussed a fluid self that is transformed through online interactions. This supports children's identity construction because they can explore what identities they associate to and feel comfortable with. When children feel they can no longer identify with something, they can move on to something which is more relevant to their process (Livingstone, 2008; 2014).

Children's choice of online tools can be related to their identity development. Children below 13 are often very eager to join SNS because this is considered by children as an important milestone. The former display of identity "is replaced gradually by the mutual construction among peers of a notion of identity through connection" (Livingstone, 2008, p. 402). SNS are spaces where connections can easily be developed and maintained. These connections are often based on choosing what information to share with others, and sometimes, this can bring both advantages and disadvantages simultaneously. In their online interactions with others, through which children construct their selves, they have to negotiate "between the opportunities (for identity, intimacy, sociability) and risks (regarding privacy, misunderstanding, abuse)" (p.407). This is especially so for platforms that support anonymity (Farrugia et al., 2019). Preadolescents are at the brink of their identity development process.

With the increased use of technology from a younger age, it might be that this process is somehow accelerated, possibly without having the adequate tools to cope with the risks.

Resilience and Vulnerability. The EU Kids Online (Livingstone et al., 2011a) research investigated children's strengths and vulnerabilities through self-efficacy, emotional problems and sensation-seeking amongst other factors, to identify possible predictors of exposure to risk resulting in harm. Youn (2009) defines self-efficacy as "individuals' belief in their capability to successfully carry out an action" (p. 390). The belief in one's skills can be as important as possessing the actual skills (Livingstone & Helsper, 2010). Children's age, gender, internet use, self-efficacy, digital skills, online opportunities and risks are related. Online skills and self-efficacy were higher in older children and in those from higher socio-economic backgrounds. Those children who had more skills and a higher self-efficacy encountered more risks online. Such results evidence that psychological factors have an important role in online experiences and that it is important to consider the role of self-efficacy in understanding preadolescents and new media.

While self-efficacy seems to enhance resilience, sensation-seeking seems to increase exposure to risk. Sensation-seeking is the individual's tendency to seek new things and be enticed by risk. Children who scored high on sensation-seeking were more likely to play and enjoy violent video games (Slater et al., 2004; Excelmans et al., 2015). These children also had an increased likelihood to break rules (Jensen et al., 2011). This has significant implications for understanding the online behaviour of sensation-seekers, as it seems that this construct may be related to engaging in more risky behaviours (Breakwell, 2007).

Using Facebook seems to be helpful for those with low life satisfaction and low self-esteem (Ellison et al., 2007). Children who used Facebook more than others appeared to make more connections. This finding was replicated by Vanden Abeele et al. (2018). The platform allows participation and communication to happen without those barriers one would find when communicating face-to-face, thus enabling communication. This is a positive example

of how a platform that has potential risks – such as privacy risks due to oversharing – can have other benefits that might not appear at face value. This implies that while vulnerable children might be more challenged by online risks, there are also significant opportunities that can be gained from being online. Internet communication with close friends was found to be positively related with well-being (Valkenburg & Peter, 2007) and despite the changes to the social network over the years, this finding remains valid (Wenninger et al., 2018). However, Beyens et al. (2020) claimed that the relationship between new media use and well-being might not be that strong and that individual differences need to be taken into account, especially where vulnerable youth are concerned.

Vulnerability is one's "susceptibility to physical or emotional injury" (Munro, 2011, p. 7). Childhood is often considered a period of vulnerability, even more so if children face emotional or behavioural difficulties, disabilities and other family difficulties. Yet, this susceptibility depends on the challenges that children face and their resilience, on how their parents address their needs and also on their social context. These different factors imply that children are not all vulnerable in the same way, and that offline vulnerability is not automatically transferred to the online environment. However, research about risks and vulnerability produces contradictory results. In some cases, online victims are not vulnerable offline, while high-risk youth offline might be more at risk online because of how they use the internet. All children who use the internet are potentially at risk of being harmed, however, there are disadvantageous circumstances which can further affect their vulnerability (NFER, 2010). When children are harassed, they are more likely to be online perpetrators (Mitchell et al., 2016). Some studies also substantiate a relationship between psychosocial vulnerability and online victimisation, such as being more likely to be asked for sexual pictures online (Mitchell et al., 2007).

Moral Development and Ethical Behaviour. Online, moral negotiations of right and wrong and ethical conduct are not the same as offline (James, 2009). Youth are "babies with

superpowers” (p. 18) because despite their skills and the time they spend online, they do not necessarily grasp the meaning and implications of their actions. New media require that the notions such as identity, privacy, ownership and authorship, credibility and participation are reconceptualised for young people to engage in meaningful, engaging and responsible behaviours online. As an example, when children go online, they can explore their identity in various ways that have fewer constraints and lower stakes. However, there are perils related to this exploration, particularly related to deception, exploration of harmful identities, fragmentation of identity, especially if there are major divergences between the online and offline self, and of relying only on others’ approval.

Internet users follow specific rules and conventions when they are online. This domain is still considered to be freer. For children and adolescents, particularly because adults do not intrude this space (Bradley, 2005). This freedom can lead to encountering risks, yet it can also support children’s moral development. The experiences they have online can lead children to process and develop their moral compass. When children go online, they make discoveries, try out behaviours and make their own judgement calls. They will make mistakes, but the uncertainty that results from these interactions with others leads to moral development (Bradley, 2005). There are some aspects of morality that are passed on by the community, but eventually they are assimilated, questioned, evaluated and constructed in ways that are relevant to their context. This perspective can be problematic, as online, children mostly interact with their peers, whose morality is also developing. Adequate role models to learn from and adequate critical thinking skills to question and evaluate values are also required for their morality to develop. Moreover, the online and offline worlds are interdependent and the development of morality cannot be compartmentalised.

Hagen and Jorge (2015) specify that the participatory culture on the internet is linked to the process of peer socialisation, part of which is a morality that is driven by peers. Peers negotiate between themselves what is acceptable and not, and this often also depends on the

circumstances in which these events happen. While there seem to be unwritten rules, there are no over-arching ones. Children take stances about norms and morality in online behaviour such as bullying, meeting strangers, posting photos on SNS and downloading content. While they sympathise with victims, they also blame victims for problems they face online (Jorge & Farrugia, 2017). Yet, the contexts in which these interactions occur determine the way they are judged, indicating a form of moral relativism present at a young age.

Sexual Development. Sexuality is another important aspect of a child's psychosocial development during early adolescence. Clarke (2009) found that through flirtation and other cyber-behaviours that in real life would belong to romantic or sexual relationships, 10-year-old children were "playing' with the adult world, exploring their sexuality, and asserting a sense of power and agency over what they did" (p. 17). This was already happening over twenty years ago through the use of virtual environments. Social media has now also enabled other forms of sexual exploration through the real self.

Children's discourse about smartphones is often related to their sexuality and intimate relationships (Bond, 2010). They mention positive aspects of mobile communication, such as reassuring each other, and also negative ones, such as the uncertainty that arises when contact with someone they like is not reciprocated. Children use mobile phones to present themselves as popular and liked by peers of the opposite sex. The use of mobile phones for sexual exploration can expose children to risk, albeit boys are more susceptible to this than girls. Sexual material is readily available online, and is easily accessible through smartphones. Children mentioned using their own or others' mobile phones to view sexual material online (Bond, 2010). Children aged 9 to 12 use smartphones less in comparison to older children (Mascheroni & Ólafsson, 2014; Smahel et al., 2020), however, early exposure to sexual material can still be an issue. With internet use becoming increasingly mobile, even tablets can become an issue, especially if they have unlimited access to unfiltered content such as through YouTube. This brings about a dilemma for parents and educators as they have to

decide whether to protect children's innocence and delay educating them about sexuality until they are older, or start this process from a very young age before they are exposed to sexual material online.

The connected child experiences online risk while going through these developmental processes. Children's social representations of online risk also develop within these contexts. Risk experiences can also impact children's development in these domains and also how they make sense of these risks.

Preadolescents' Internet Use

Another cogwheel in understanding children's representations of online risk is to gauge how they use the internet. It indicates where they can come across opportunities and risks and it influences how and whether they can be supervised. Internet use refers to the time children spend online, the devices they use to do so and where they access the internet from. The latest EU Kids Online survey found that in comparison to the data from 2010, children's internet use has increased substantially and that the time they spend online daily (167 minutes) has nearly doubled (Livingstone et al., 2011a, Smahel et al., 2020).

In 2010, the majority of younger children used the internet at home in a public space. However, data was already indicating an increase in the range of mobile devices used by children (Livingstone et al., 2011a). Further evidence for the trend towards a greater "privatisation of internet use" (Livingstone, Mascheroni et al., 2014, p. 13) was found in the Net Children Go Mobile study carried out in six European countries. By 2019, 80% of children claimed they used their smartphones to go online daily (Smahel et al., 2020).

A problem that can arise from children's new media use is when children use them excessively. Results from a Maltese study in 2012 (Malta Communications Authority, 2012a) showed that 13% of parents of the children aged 8 to 11 were concerned that their child spent too much time online. The American Academy of Pediatrics (n.d.) originally recommended that children should not spend longer than two hours of screen time per day. However, the

measure of time spent online is not necessarily a valid means of analysing excessive use of the internet, especially for children who increasingly use the internet for several activities and because the advice given to parents is often inconsistent, inconclusive or sensationalised.

The EU ADB.net research (Tsitsika et al., 2012) analysed internet use, psychosocial characteristics and administered the Internet Addiction Test (IAT) and other tests related to gambling to a sample of over 13,000 adolescents from 7 European countries. It was found that 1.2% of participants exhibited 'Internet Addictive Behaviour' and 12.7% were considered at risk for this kind of behaviour. Yet, the 13% of children who exhibited 'Dysfunctional Internet Behaviour' (DIB) were not a homogenous group. Adaptive and maladaptive internet use depended on whether internet use compensated for offline need satisfaction, whether it interfered with social relations and on the ability to self-regulate. In a study about internet use for entertainment, 5.2% of Maltese children aged 13 to 18 were classified as problematic users because of the amount of time they spent online (The National Centre for Freedom from Addictions, 2017).

Blum-Ross and Livingstone (2016) suggest that it would be better to consider the context where screen time occurs, what content children access and their social connections. Specifically, parents are recommended to reflect on their children's health and sleep patterns, their social connections, their educational achievements, their interests and hobbies, and whether they are using media both to learn and have fun. New media are becoming even more pervasive and shifting from focusing only on the amount of time spent online to the context where online activities are carried out is a much-needed change. However, these reflections that parents are invited to make might be ignoring some aspects, such as the child's mental health, and might also be assuming that all parents are able to identify problems and address them.

Preadolescents' Online Activities

Looking at the various activities that children aged 9 to 12 engage in online, enables a deeper understanding of what they know, like and what drives them (Pruulmann-Vengerfeldt & Runnel, 2012). These activities can only be considered as beneficial or harmful when considering their outcomes (Livingstone & Haddon, 2012). Although some activities are clearly valuable for children and some others are clearly risky, often, it is not easy to determine whether an activity is beneficial or risky, especially if there is “a blurring of the boundary between risk and opportunity” (p. 11). Moreover, the outcome of an activity does not depend solely on the activity itself, but it is a function of the interactions between the individual and several factors, such as psychological factors and parental involvement among others (Livingston et al., 2013).

A Ladder of Opportunities. One useful way to understand children's online activities is the ‘ladder of opportunities’ framework that was first developed in Livingstone and Helsper (2007). Children's internet activities were grouped into ladder rungs, starting with the most basic types, such as obtaining information, at the lower rungs of the ladder, and advancing towards the higher rungs based on more specialised activities such as content-creation (Kalmus et al., 2009). As they grow older, children progress through these different rungs, while gaining skills and engaging more complex activities the higher they go, implying also that they have a greater agency (Pruulmann-Vengerfeldt & Runnel, 2012). Despite its pragmatic value, this framework might not depict the full complexity and variety of children's online activities. Furthermore, Pruulmann-Vengerfeldt and Runnel (2012) criticise this framework as apart from the fact that children do not necessarily progress along the ladder in a step-by-step fashion, there are activities which might fit into more than one rung. A further criticism of this conceptualisation is that it seems to assume that the skills to progress to the next rung develop automatically with age.

Pruulmann-Vengerfeldt and Runnel (2012) tested this ladder of opportunities with preadolescents. When asked about 17 different online activities, the majority of children between 9 and 12 years were engaged in content-based activities such as schoolwork, playing games and watching video clips which are at bottom rungs. Communication-based activities such as instant messaging and email were engaged by around half of the children. The activities that this age group engaged with least frequently were those participatory activities in the higher rungs where children create and share content, and which require the most skills (Pruulmann-Vengerfeldt & Runnel, 2012). These findings also showed that for this age group, there were relatively few gender differences between girls and boys in the uptake of most of the activities examined, except in the case of playing games with others, as girls engage in gaming less when compared to boys.

Social Networking Sites. The popularity of SNS is evident from several studies across countries, which also reveal commonalities in the way young children use such sites (UNICEF, 2011). The three main features of SNS are “profiles, public testimonials or comments, and publicly articulated, traversable lists of friends” (Boyd, 2007, p. 121). These three features and public sharing, distinguish SNS from other kinds of computer-mediated communication. Most SNS do not allow young children to have a profile on their platform, but several children do so anyway. As a response to COPPA, several websites refused to offer their services to children below 13, and as a consequence, children started lying about their age to be able to gain access to these sites (Boyd et al., 2011). The problem with this is that some of these platforms were not intended for children and yet, children still make use of them. Around the time COPPA was introduced in 1998 (U.S. Congress, 1998), SNS were still in their early days, and the advent of Facebook happened in 2004. Since then, Facebook, and eventually other SNS continued to gain popularity exponentially. In the second quarter of 2020, Facebook registered 2.7 billion monthly active users (Statista.com, 2020). In 2011, when Facebook registered 600 million Facebook users, it was estimated that there were 7.5

million who were under the age of 13, and out of these 5 million were less than 10 years old (Warmann, 2011; Magid, 2011). While data for Facebook users below the age of 13 is not available, presumably, the number of underage Facebook users has also continued to increase. Facebook might be the biggest social media platform but it is only one of many available and accessible to children. Stanaland et al. (2015) postulated that “the profile of the child internet user is becoming younger, particularly on social media” (p. 56). This needs to be given due consideration when conducting research with children below 13 years as it brings several implications and challenges. Children are lying about their age to be able to set an account on social media, and this can be problematic. However, if most of their friends are on SNS, children feel left out at a time where peer belonging is crucial to their identity development.

In 2010, 38% of European children aged 9 to 12 had a social networking profile (Livingstone et al., 2013). In 2019 the percentage of children who visited SNS weekly was 54% for children between 9 to 11 years and to 72% for children aged 12 to 14 (Smahel et al., 2020). In the same year, the percentage of Maltese children aged 9 to 10 years who had their own social networking profile was 16% and increased to 80% for children aged 11 to 12 years (Lauri & Farrugia, 2020). Around a third of all children have a public profile on SNS, and in a study carried out by Mascheroni and Ólafsson (2014) only one-third of children knew how to change privacy settings. This is significant because when younger children use SNS without the ability to use privacy settings, they might be more prone to encountering risks.

SNS can be novel learning environments and they provide children with virtual playful experiences (Yelland, 2010). They can also support formal, informal and collaborative learning (Krouska et al., 2017). However, despite these benefits, the role of adults when children engage with SNS remains important, particularly because SNS such as Facebook, are not intended to serve as educational platforms. When parents posed no restrictions on setting up social networking accounts, a higher number of children had a profile (Livingstone et al., 2013). Consequently, Livingstone et al. (2013) advocate that unless suitable safety features

are applied, or unless there are sites that are specifically aimed at children, children below the age of 13 should not have profiles with SNS, as the benefits are smaller in comparison to the privacy, safety and self-esteem risks the children could face.

Risk and Opportunity: Frequently Together. The finding that risk and opportunities frequently occur together confirms the ambiguity of children's online activities. Livingstone et al. (2011b) found that risky opportunities were linked to vulnerability, but also to resilience, depending on the conditions where they occur. Among the beneficial effects or opportunities that the new media can provide, Buckingham et al. (2007) listed the following: learning, language acquisition and development, development of cognitive skills, development of pro-social behaviour and moral values, awareness of social issues, social interaction, civic participation, creativity and self-expression, cultural value, identity development, entertainment and relaxation, developing the ability to sustain attention, and the encouragement of creative activities. Although when this work was published the internet was still progressing towards web 2.0 and a more mobile and social media-oriented format, these attainable benefits remain relevant. Most children engaged in such activities and had a positive online experience (Livingstone & Haddon, 2012). However, there are children whose online behaviours (e.g. talking to strangers online) make them vulnerable. Although risky experiences are not directly related to harmful consequences, there is a higher possibility for children to find themselves in harm's way once they are engaging in risky behaviours.

Online Risks in the Preadolescent Years

There can be no discussion of opportunities without mentioning risks. In fact, as Buckingham et al. (2007) argued, often, staying away from online risks might not only be unavoidable but it might also mean not profiting from the possible benefits. Some risk exposure is a necessary evil, sometimes even crucial to development, as children cannot learn about risks unless they encounter them. Nevertheless, this cannot be applied universally to all children irrespective of their age: "while a certain degree of risk might be seen as appropriate

for teenagers, it is unlikely to be seen in the same way for younger children” (Buckingham et al., 2007, p. 16). While teenagers seem to encounter more online risks when compared to preadolescents, the latter are more disturbed by encountering such risks (Staksrud & Livingstone, 2009). Besides, younger children seem to be less likely to be aware of valid e-safety strategies to stay safe online (Cranmer et al., 2009). The risk of harm might be greater for younger children and this is one other reason why special attention needs to be given to this age group. Younger children still need to be aware and informed about the different types of risks, both those that happen more frequently and are less problematic, and also those that occur rarely and are more challenging.

When discussing children and online risks, there is often a distinction between the child in danger and the dangerous child. The former implies an inadvertent exposure to risks while the latter involves an image of children who actively seek risks (Holloway & Valentine, 2001). Instead of such a dichotomous approach which is limited in describing children’s relationship to technology, these authors emphasise that children should be considered as “a diverse group of social actors who come together with technology in different communities of practice” (p. 28). The risky factors of technology are not inherent in the medium, but emerge as a result of interacting with them. Besides, it cannot be presumed that all children have the same technological skills, and neither can it be presumed that because they are children, they do not have adequate skills. To avoid making assumptions or using limiting approaches such as the dichotomous one described above, it is important to listen to children’s voices about their sense-making and experiences of online risks (Livingstone & Third, 2017). Learning about children’s social representations of risk is one way in which their grasp of risks can be understood to enable their needs to be addressed.

Classifying Online Risks. EU Kids Online provided a classification of risks based on children’s online activities. Risk was classified into content risks, contact risks or conduct risks (Hasebrink et al., 2009; Staksrud & Livingstone, 2009; Livingstone & Haddon, 2012).

Such a classification is pertinent to the realm of online risks for children as it is rooted in evidence, based on the activities they carry out and the experiences they come across.

Table 1 presents different types of content, contact and conduct risks according to four dimensions: aggressive, sexual, value and commercial risks. A criticism of this classification is that some risks can be classified across categories. For instance, while sexting is classified as a conduct risk because of the role of the sender, it is also a contact risk for the receiver, and a content risk for the unintended audience.

Table 1

Risks Relating to Children's Internet Use

	Content Risks Child as receiver	Contact Risks Child as participant	Conduct Risks Child as actor
Aggressive	Violent / gory content	Harassment, stalking	Bullying, hostile peer activity
Sexual	Pornographic content	'Grooming', sexual abuse or exploitation	Sexually harassment, 'sexting'
Values	Racist / hateful content	Ideological persuasion	Potentially harmful user-generated content
Commercial	Embedded marketing	Personal data misuse	Gambling, copyright infringement

Adapted from Livingstone et al., (2011a)

The main risks for children online include seeing sexual content, receiving bullying and harassment messages, meeting new contacts online or offline, and negative-user-generated content related to hate speech, eating disorders, substance abuse, self-harm and suicide (Livingstone, 2019). Risks associated to the disclosure of personal information are the most common, followed by risks related to inappropriate sexual or violent content. Although stranger danger encountered through meeting online contacts in the real world is potentially the riskiest, it seems to be the least common. Younger children report that they encounter these risks less than older children (Staksrud & Livingstone, 2009; Smahel et al., 2020).

Sexual Content. Pornography has always been a harmful influence for children and the widespread accessibility of online pornography has exacerbated this situation (Rovolis & Tsaliki, 2012). Often, the claims that children need to be protected from pornography are based on how the children can interpret such content, especially if it is perceived as bringing about desirable effects. Online pornography is adult material that children either come across accidentally or look for specifically. This is different from images of child abuse or grooming activities.

The internet functions with the “publishing and distribution model” (UKCCIS, 2012, p. 14), meaning that anyone can post content freely, and this includes harmful material. Such content has now become accessible to anyone using the internet, including children. The Net Children Go Mobile study (Mascheroni & Ólafsson, 2014) found an increase in the percentage of children who accessed sexual material when compared to 2010, and this occurred predominantly online. There was also a difference between those children who did not use mobile devices to go online, and those who used a smartphone, whose exposure to sexual material was higher.

Children often mentioned sexual content when they discussed specific problematic situations online (Smahel & Wright, 2014). They came across it through several platforms, such as gaming sites, or while searching for material for schoolwork. Younger children reacted rather negatively to such content. Children tend to use free gaming or video streaming sites, that generally have more pop-ups related to commercial and sexual material. Given that most children come across sexual material, “first-hand experiences and peer discourses are influential in creating the social representation that this is somehow part of the experience of going online” (Smahel & Wright, p. 52), leading some children not to take any preventive measures. Other children, who chose to protect themselves, did not click on anything that looked dubious and also use tools such as advert blockers. Children also discussed how exposure to sexual content could lead them to develop misrepresentations about sexuality.

They were also concerned that discussing these incidents with an adult, particularly their parents, would lead to the undesirable consequence of not being allowed to use the internet, and thus some children reported that they felt more comfortable discussing this with a peer.

Research about pornography (Rovolis & Tsaliki, 2012) confirmed the ‘risk migration hypothesis’, that is those who encounter risks offline are also more likely to encounter risks online. Older children, boys and children who score higher on sensation seeking and self-efficacy encounter sexual images more often. When the reported harm was analysed, few children reported being harmed. This implies that children could have been looking for such material themselves, and that the incidence of harm as a result of encountering sexual content online, although not negligible, is not as high as parents, educators, policy makers and media believe or claim. The main concern is that this material is becoming increasingly accessible through the internet. For younger children, filtering software might be useful to limit such exposure, but this might not be enough for older children with more digital skills. Rovolis and Tsaliki (2012) recommended that parents’ and educators’ discussions with children about pornography, as part of a wider sex education programme are more important than any tools.

Cyberbullying and Online Harassment. Online harassment or cyberbullying occur when the internet is used by someone to behave aggressively towards others through “inflammatory e-mails or instant messages, or damaging pictures or text posted on a profile” (Ybarra et al., 2007, p. 32). This wide range of possible behaviours is intended to harm others, either directly or indirectly (Tarapdar & Kellett, 2011). Among the range of these behaviours, children mentioned aggressive communication with friends or strangers that usually occurred via SNS, having their profiles hacked or stolen and being excluded (Smahel & Wright, 2014). Although these types of contact risks have the most potential in resulting in harm, they occur less frequently than the more common content risks (Livingstone et al., 2011a), but nevertheless, they are not insignificant (Mascheroni, et al., 2014). In fact, cyberbullying was the experience that bothered or harmed children most. Even though most children never had a

direct experience of cyberbullying, they associated it with negative feelings and unpleasant consequences (Smahel & Wright, 2014).

Early day research about cyberbullying by Smith et al. (2005) already identified some salient aspects of the nature of cyberbullying. Children's use of new media and SNS were not as rampant as they are today, but cyberbullying was immediately recognised as worse than traditional bullying, because it can go unnoticed at length (Juvonen & Gross, 2008). The victim has no place to be safe from the bullying, the bullies can be invisible and anonymous, and bullying can have a wider audience. It is also likely that cyberbullies disassociate from their behaviour, and do not feel sympathy, regret or compassion for their victims since they do not have direct contact with them (Wilton & Campbell, 2011). This seems to be a manifestation of the 'Online Disinhibition Effect' (Suler, 2004) which is brought about by six different factors amongst which are anonymity and invisibility. Online, the absence of psychological barriers facilitates people to behave differently than they would in real life. Being anonymous and invisible, cyberbullies would not be concerned with social disapproval. They are aware that their identity cannot be traced easily and thus, they feel untouchable since they cannot be identified or disciplined for their behaviour. Often, children claimed they knew the identity of their bully and often, it was someone that they already knew (Juvonen & Gross, 2008).

Levy et al. (2012) presented the traditional definition of bullying as intentional, and repetitive harassing behaviour involving a power imbalance. Including aspects such as social exclusion and the dissemination of gossip and rumours online as part of this definition reflect the role of new media in bullying situations. While definitions of bullying are derived from research with those who have experienced it, it would be unwise to assume that any behaviour that has these characteristics is considered as bullying by both the sender and receiver of that behaviour. Moreover, there might be instances where one feels bullied and not all the characteristics of bullying are present. Thus, although a definition of bullying and

cyberbullying is useful, it must be adopted with caution to avoid biases in understanding children's experiences. Garnering children's representations of bullying is relevant to help understand the meaning they attribute to it, because there can be difference from what adults understand. A case in point is that in cyberbullying, anonymity is often considered as part of the power imbalance, but sometimes this is labelled by children merely as being 'drama' (Boyd, 2014).

How do Children Perceive Bullying? Several studies have attempted to understand how children perceive bullying. Often bullying is explained in individualistic terms and children tend to blame the bully or the victim rather than attribute it to non-individualistic reasons such as the school, peers or human nature (Thornberg & Knutsen, 2011). Children's perceptions of bullying and victimisation are based on their own representations of a specific bully or victim they are aware of, together with their personal experiences. Furthermore, Baldry (2004) found that attitudes towards bullying depended on "who holds them (boys or girls), towards whom (boys/girls, bullies or victims) and under which condition (bullying alone or in group)" (p. 594) the bullying happens. In contrast, Wilton and Campbell (2011) concluded that irrespective of whether adolescents had been involved in bullying, cyberbullying, both, or not at all, they explained bullying in a similar way. They interpreted bullying as attention-seeking behaviour, or that bullies were trying to feel better, get their own way or else were picking on someone who was different from them.

Children were also aware of the unique features of cyberbullying. Mishna et al. (2009) found that children were aware that because of anonymity, even timid children could be cyberbullying others. The bullies could remain unknown and they could use numerous ways to bully, thus posing a greater threat. They also considered bullying behaviour as having no consequences if the bully remained anonymous, and children were also more reluctant to talk to adults about bullying if they did not know the identity of the perpetrator. Moreover, children were also aware of the pervasiveness of cyberbullying, and acknowledged that it

could happen anytime and anywhere, even in places usually associated with safety such as their home. Children perceived the anonymity of the bully and the pervasiveness of the bullying as two factors that increase the power imbalance in cyberbullying (Šleglova, & Cerna, 2011). The strength of such qualitative studies lies in obtaining information about an issue relevant to children directly from those who experience it, and thus it provides a wealth of information that cannot be gauged otherwise.

Thornberg (2010) studied children's social representations of bullying in an attempt to uncover the shared meanings that enable children to make sense of this phenomenon and communicate this meaning. Bullying evoked negative feelings in children and some children expressed their fear in becoming a victim if they made a faux pas. Children had seven different social representations to explain bullying causes: "(a) bullying as a reaction to deviance, (b) bullying as social positioning, (c) bullying as the work of a disturbed bully, (d) bullying as a revengeful action, (e) bullying as an amusing game, (f) bullying as social contamination, and (g) bullying as a thoughtless happening" (p. 5). Bullying was primarily explained by the majority of children as a reaction to deviance, where differences based on appearance, behaviours, characteristics and associations in the victim were considered as provocations. Over two-thirds of the children explained that bullying occurred as a struggle for status, to exert authority over peers or to win or maintain friendships. Children often perceived such situations to be sparked by anger or jealousy and often, bullying selected victims that appeared weak. Bullies were in fact considered strong, self-confident and brave when compared to the victims. However, in an earlier study, victims were judged more positively than the bully, and a pro-victim attitude seemed to prevail (Baldry, 2004).

While these studies refer to traditional bullying, they give significant insights that can be applied to preventing cyberbullying and intervening when it occurs. This is particularly so, because there is an association between the way children interpret bullying and their behaviour in bullying situations (Thornberg, 2015). When children explained bullying

behaviour based on the oddness of the victim, they distanced themselves from the victim, conformed with the victim-blaming position, and were more likely to be bullies or reinforcers of the bullying behaviour rather than defendants of victims.

The Bystander Effect. Thornberg's (2010, 2015) findings seem to point to a sense of moral disengagement by bystanders, and this partly explains why they are passive. Children's explanations of bullying indicate that they seem to perceive bullying as a normal process. This normalisation could inhibit them from intervening and responding empathically when faced with bullying. When bullying victims are labelled as different, the children dissociate themselves from the victim. This is a form of defence mechanism for children but it also inhibits pro-social behaviour. Moral disengagement is also brought about by transferring responsibility onto others (Thornberg, 2010). When children blamed the victim or the social situation, they also shifted the responsibility to intervene onto others, and they no longer felt responsible to intervene. This also occurs due to the attribution bias where children are more likely to blame others for something when the others are considered members of the outgroup (Baldry, 2004). Effective interventions that target this moral disengagement, can help anchor the online situation into a familiar context, and that might make children more likely to react to the mean behaviour they witness online.

The diffusion of responsibility and effects of social influence can be explained by the 'Bystander Effect' that was first researched by Darley and Latanae (1968). Garcia et al. (2002) explained that this occurs when a person experiences someone in distress and is less likely to respond if others are present. Consistent with the bystander effect, Lenhart et al. (2011) found that generally, when teenagers witnessed mean behaviour online, they often ignored it. However, these authors interpret this finding with caution, indicating that a non-reaction from bystanders might not always imply indifference and that this can be an effective strategy to address bullying behaviour, rather than the bystander effect. Children might also

be less likely to intervene in cyberbullying situations because of the fear that they could become cyberbullying targets themselves.

Sexting. The shift to children having smartphones that can access the internet and that support photos and videos have brought about more cause for concern in relation to younger children and sexual risks. The connectivity and accessibility smartphones provide, together with children's developmental processes and their sexualisation at a younger age (Bailey, 2011) could lead to preteens engaging in more sexting. A definition of sexting by Klettke et al. (2014) describes it as "the sending, receiving, or forwarding of sexually explicit messages, images, or photos to others through electronic means, primarily between cellular phones" (p.45). This definition portrays how sexting is simultaneously a conduct, contact and content risk and it does not fit only one of these categories. Sexting behaviour in adults is different from that of adolescents mainly because of the different styles of relationships they engage in (Delevi & Weisskirch, 2013), but evidently the dangers of sexting are different and far greater for minors.

Sexting is a form of relationship currency, and the pressure to engage in it was greater for girls (Lenhart, 2009). Moreover, there is a sexual double standard where girls were expected to act according to sexual scripts and share sexual images of themselves while simultaneously, they were labelled and shamed for doing so (Ringrose et al., 2013). Lenhart (2009) found that sexting can happen between two romantic partners, when one party hopes to become romantically involved with the other and also without the person involved knowing, as a form of blackmail. From Klettke et al.'s (2014) systematic literature review of sexting which investigated this behaviour from early adolescence (10 years) onwards, the prevalence of sexting increased with age, and often sexting was associated with being sexually active, even though causality could not be attributed (Temple et al., 2014).

The percentage of those who received sexts is higher than those who have sent them. This reflects that sexts go beyond their intended audience and are shared with a wider group,

sometimes even going viral (Lenhart, 2009; Klettler et al, 2014; Lounsbury, Mitchell, & Finkelhor, 2011). Sexts become a content risk for the unintended audience they reach. Relationships in the preadolescent stage of life are often short-lived or else limited in the aspect of commitment, and these could be reasons why often sexts are shared beyond the intended audience (Temple et al., 2014; Turkle, 1995). When analysing sexting, apart from the motivations and the expected outcome from the behaviour, it is also important to understand the significance this behaviour holds both for individuals who participate in it and those who do not. This is particularly relevant for preadolescents, because of the onset of puberty and the sexual explorations that often occur online. Understanding their representation of sexting behaviours can help targeting interventions for their safety.

Stranger Danger and Online Messaging. Interaction with strangers is a major enticement of the internet, particularly for young adolescents who are in the process of self-discovery and identity formation. They are allured by the possibility of meeting new people and breaking away from what is familiar to them. Children often feel safe about making new friends online, especially if they are careful not to share information that can identify them (Clarke, 2009). However, stranger danger, or the possibility of encountering sexual predators online can be “an unfortunate byproduct” (Guo, 2008, p. 625) of the possibilities of SNS. Yet, the concern about stranger danger that adults often have does not seem to be shared by children.

The prevalence of younger children talking to strangers online or meeting strangers face-to-face was less than for older children. However, more children in the younger age group were bothered by meeting strangers face-to-face. The reasons mentioned by children included the other person saying hurtful things to them or doing something sexual to them, being physically hurt or something else bad happening. Another concern is that around one-fifth of the children bothered by this experience preferred not to say why they were bothered (Livingstone et al., 2011a). Through focus groups and interviews with children, Smahel and

Wright (2014) referred to interactions with strangers as being friendship requests, requests for personal information or compliments from strangers and actually meeting up with online strangers. Children were sometimes afraid or annoyed with friendship requests from strangers, and they were bothered when strangers asked for personal information. Contact and compliments from strangers often made the children feel scared or uncomfortable. Children ranked this type of experience as what scared them most. Often, they “draw a vivid, at times dramatic, picture of the dangers associated with communicating with strangers on the internet, and more specifically, meeting them in person offline” (p. 55). While children acknowledged the potential benefits of meeting new people online, they were also aware of the negative consequences that could arise from this. These were particularly related to fake profiles and threats to personal belongings or their physical self, especially if they met such contacts face to face. Although it results that few children were exposed to this risk or harm (Smahel & Wright, 2014), physically meeting strangers met online can potentially be dangerous, particularly for younger children, and remains a very important area to research associated with conduct risks.

Prior to the introduction of SNS, teenagers used chat rooms to talk to strangers. The use of chat rooms was associated to psychological and environmental problems and higher risk behaviours among teenagers (Beebe et al., 2004). In turn, emotional turmoil might be associated to seeking anonymous connections, and thus placing oneself in a risky situation. The vulnerability brought about by emotional turmoil might make the young people ill-equipped to exercise good judgement when talking to strangers online. With the advent of SNS, chat rooms decreased in popularity, but SNS use has increased. Preadolescents might not actively seek to interact with stranger on SNS, however, when preadolescents invent a date of birth to gain access to SNS, others might approach them online thinking they are older. Being young, going through emotional distress, and providing false information about their age are among the factors that might make preteens more vulnerable to encountering

stranger danger online. Being groomed by sexual predators is one such risk because the “distance and anonymity may be empowering potential child abusers, and be more difficult for parents and children to identify” (UKCCIS, 2012, p. 15).

Other Online Risks. While sexual content, cyberbullying, sexting and stranger danger can be considered the more problematic online risks because children can be harmed by them, Paus-Hasebrink et al. (2011) argued that there are other online risks that need to be considered. Children underestimate the potential for things to go ‘viral’ or have unintended audiences on the internet and the pervasiveness of a digital footprint, despite the privacy settings. Moreover, insufficient knowledge about posting personal data and data mining could also be risky and have consequences. Excessive use of the internet can also be potentially risky, if it compensates rather than complements the child’s life. Harmful or negative user-generated content online, which is often created and distributed among peers, can potentially expose children to violent or aggressive material, but not only. Younger children, who came across scary or gory content online reported being bothered by it (Smahel & Wright, 2014).

Some children were exposed to hateful and racist content on websites. Other children, albeit few, mentioned coming across sites which were pro-anorexia (pro-ana) and pro-bulimia (pro-mia) (Smahel & Wright, 2014). Bond (2012) identified 126 pro-ana or anti-recovery sites that were easily accessible through a Google search and not password protected. Content analysis of these sites revealed that eating disorders, specifically anorexia, were often trivialised, sensationalised and glamourised. The interactive component was also risky as it built a sense of belonging and reinforced the disordered identity. Given the accessibility of this content and its visibility on SNS, preadolescents could come across triggering material both when browsing and also if they are present on social networks. Although self-help material is available online, the distinction between beneficial material and material that reinforces negative thoughts and actions is not necessarily clear for children.

Another risk discussed by Adler and Adler (2011) is that because of new media, self-injury is no longer a hidden ‘loner’ experience, associated to shame and social disapproval. Online, self-injurers can connect with like others and find information, support and a virtual space that is shared with others who engage in this behaviour. Even though this material can be used for self-help or support purposes (Prasad & Owens, 2001), it can contain graphic and triggering content. As Whitlock et al. (2006) argue, the content of self-harm message boards or online communities often includes sharing the techniques of self-injurious behaviour, which can be dangerous to those who stumble across it when they search for information. Over half the YouTube videos related to non-suicidal self-injury analysed by Lewis et al. (2011) did not warn viewers that the videos contained triggers. When such videos are artistically produced, they can potentially be more dangerous for younger children, because apart from self-injury being considered ‘communicable’ (Whitlock et al., 2006), such videos can normalise or glamorise self-injurious behaviour.

Media use in young children including online media has sometimes been associated to other problematic situations in childhood. Beyens et al., (2018) identified a possible relationship between ADHD-related behaviours and media use. Other concerns related to advertising that targets children, include increased materialism and parent-child conflict if the parents do not meet their children’s requests to buy the advertised products. Childhood obesity is another issue that can be related to media adverts, as the majority of adverts are often related to junk food and children expect that kind of food as part of their diet (Vossen et al., 2014). Online, these adverts are often in the form of pop-ups or before watching videos on video-sharing sites, and children often felt irritated by them, particularly the younger ones who did not have sufficient digital skills to deal with these adverts (Smahel & Wright, 2014). Technical issues such as viruses, unreliable internet connections, errors or other problems with their devices were also a source of distress to children. Although the risks discussed in this section might not be major risks, they are also the ones least addressed through research.

However, they still need to be considered when discussing online risk and young children, as they are still experienced by children, and they impact and are impacted by children's representations of risks which eventually impact their behaviours.

The Role of Risk Perception in Prevention Strategies

In a UK survey with children aged 7 to 11, children explained online risks in ways that were "exaggerated and, in some cases fantastical" (Cranmer et al., 2009, p, 136). Some anecdotes included being electrocuted if using a device during a rainstorm. While the children expressed concerns about material that was inappropriate for their age, they were less concerned with possible dangers associated to information disclosure online and the threats these could pose. This finding that young children might not have a realistic understanding of online risks, and this can have several implications on the safety measures they take. Moreover, the way children cope with online risks seems to be related to the way they perceive the particular risk (Staksurd & Livingstone, 2009). For instance, in another UK study with children aged 11 to 16, Smith et al. (2005) found that children perceived some forms of cyberbullying such as through pictures, videos or phone calls, to impact their victims more than traditional bullying. On the other hand, cyberbullying through instant messaging, chat rooms and emails was considered as having less impact than traditional bullying. While this research refers to a period where children were not using the internet and SNS to the extent they do today, it highlights the need to understand the nuances of the way children perceive and represent risk, to fully understand how this can influence their coping behaviours.

Further evidence for this need to understand children's sensemaking of risks is provided by two studies researching adolescents' social representations of HIV (Goodwin et al., 2004) and parents' social representations of drug use (Jaramillo-Moreno, 2014). Adolescents who held stereotyped representations of those at risk from HIV and AIDS found it difficult to make informed choices, felt helpless and had fatalistic attitudes (Goodwin, et al., 2004). Similarly, if children have misrepresentations of online risks, they might not engage in

the required safety behaviours. In the case of drug use, parents held ambivalent attitudes. While they acknowledged the risk, they also denied that their children were at risk, and thus they did not take any precautions or preventive actions. On the other hand, when parents held negative representations of drug use, they regarded their children to be more at risk (Jaramillo-Moren, 2014). This has important implications for children, as parents' representations of online risks can impact the type of support they give their children online.

Similarly, Conway and Hadlington (2018) found that when young people's understanding of cybercrime was anchored in their knowledge of traditional or fictitious crimes, they did not have adequate knowledge and this led to confusion. Another finding from this study based on social representations theory was that often, participants justified their risky behaviours and did not recognise themselves as being at risk, but considered others, namely the older and younger generations to be more at risk.

These findings imply, as Howarth (2006) discusses, that social representations often establish what is real, and when these representations are based on stereotypes, misinformation, biases, and fears, these impact risk perceptions and the subsequent preventive measures one adopts or fails to adopt. Two of the biases that impact risk perception are the availability heuristic and the representativeness heuristic (Breakwell, 2007). The availability heuristic is the mental shortcut used when making judgements based on information that can be recalled immediately. The representativeness heuristic refers to when we judge the probability of an event occurring based on the information available rather than the actual probability. Through these biases, online risks that are discussed in news media become easily available to memory, and when risks can be easily imagined because they resemble offline risks or are present in fiction, these can distort risk perceptions. The optimism bias or one's perceived invulnerability (Breakwell, 2007) is evident in Conway and Hadlington's (2018) findings and this belief that one is less susceptible to online risk can also bias risk perceptions.

The Protection Motivation Theory put forward by Rogers almost half a century ago, (Rogers 1975), is still useful to explain how protective behaviours come about, and this is also applicable to online safety. Protective action is the result of a situation or stimulus that is judged to be dangerous and the fear (or emotion) that ensues. Fear arises from how harmful an event is considered to be, the probability of that event occurring and how effective the protective response can be against the threat it poses. Each factor is appraised to assess the severity of the event, the likelihood of it happening and the efficacy of the response. These three cognitive processes in turn give rise to protection motivation which “arouses, sustains and directs activity” (p. 98). If the appraisal does not indicate that the event is severe, likely to occur or that no action can be taken about it, there is no motivation for protection, and there is no change in attitude and behaviour. Rather than being a result of fear, protection motivation comes about from the cognitive processes undertaken, and it is an active coping strategy rather than an escape from fear.

Maddux and Rogers (1983) revised this theory and included another three cognitive processes that influence protection motivation: the individual’s self-efficacy, the response cost and the perceived rewards that can be obtained. The response cost relates to what is involved in coping with the threat. In the case of risky behaviours, their risks and benefits are assessed, and what results from this appraisal impinges directly on an individual’s motivation for protecting oneself (Youn, 2009). When online, children can only appraise all these factors if they have the correct information, otherwise, their actions can be misguided. However, even when having the correct information, risk perceptions can still be influenced by biases. Williams et al. (2019) applied the Protection Motivation Theory in a simulation game aimed at teaching privacy behaviours to smartwatch users. The experimental group who played this intervention game, which was aimed at encouraging behaviour change were more likely to engage in protective behaviours.

Another heuristic that impacts risk perception is the affect heuristic. While most research about risk focused on cognitions; emotions eventually came to be considered as important factors in risk perception (Breakwell, 2007; Slovic, 2010). The emotions experienced by the individual have a very important role in risk perception and the related attitudes towards a risk, and while positive emotions are important, it seems that negative emotions might be more influential in these processes (Sjoberg, 2007). Emotions can result from an appraisal of the situation which in turn influences risk perception, but the risk perception can also give rise to emotions. These findings highlight the difficulty in presenting safety messages that children will listen to. Often the internet is associated to positive emotions and children also see their peers having positive experiences, possibly making it more difficult for them to perceive a risk. Similarly, when children have a negative experience online, this might translate to fear or extreme caution in several online situations unless the negative experience is handled appropriately. This can be problematic, as often fears block individuals from engaging in safety behaviours (Breakwell, 2007).

Benefit and Risk Perception. In a study about attitudes towards technological risks and benefits, Fischhoff et al. (2011) identified that when adults perceive benefits, their perception of risk decreases. This is a manifestation of the affect heuristic, which also seems true for the younger generation and online technologies. According to Youn (2005), benefit perception was more important than risk perception when trying to predict teenagers' willingness to disclose personal information. This shows how youth are more receptive to benefits and given their inclination to risk and experiment, it is more likely that risks are downplayed. This can be particularly dangerous for preteens. Given their developmental struggles and stage of cognitive development, there is a greater likelihood that in their cost-benefit assessment, the benefits of disclosure will outweigh those of non-disclosure, leading them to disclose information and thus increasing their possibilities of encountering risks associated to self-disclosure. This can also be applied to other online risks such as stranger

danger. When the risk perception is high, children are more motivated to protect themselves, and thus there is a greater chance they will use strategies to protect themselves. The opposite is also true. If they do not perceive risks, they will be less likely to engage in safety behaviours.

When young adolescents perceived benefits related to disclosing information online, they had less concerns about privacy (Youn, 2009). The more concerns they had about privacy, the more likely they were to use coping behaviours. In contrast to the Protection Motivation theory, self-efficacy was not an important determinant of privacy concerns which could lead to privacy protection behaviours such as seeking information or refraining from using particular sites. Instead it was when participants perceived their vulnerability to risk that it had a significant influence on privacy concerns and subsequently protection behaviours. In this case, self-efficacy was not a good predictor of intentions and behaviours.

In another study about preteens and online information privacy, Char et al. (2009) found that those students with a high sense of self-efficacy and who also had information about online privacy, tended to carry out more privacy-related online behaviours. This implies that children not only need to understand the importance of online privacy protection, but they also require the tools and skills to be able to take preventive measures, to be more likely to do so. This finding is not only significant for prevention from privacy breaches (e.g. hacking). It can also be useful for other online perils such as online harassment and bullying that are often related to over-sharing or sharing information that is very private online. This is especially because children tend to be “trusting, naïve, curious, adventuresome, and eager for attention and affection, potential offenders and strangers have found that children and teenagers are perfect targets for criminal acts in cyberspace” (Char et al., 2009, p. 168). Another interesting result from this research was about those children who had a prior experience of privacy breaches. This has a negative impact on the children’s self-efficacy and the protective

behaviours they engage in. Because they are less likely to protect themselves online, there is a higher probability of being targeted again (Char et al., 2009).

Youn (2009) explained that self-efficacy does not predict protective intentions or behaviours because the assessment of coping strategies depends on cognitive sophistication. This conclusion is particularly applicable and relevant to preteens, as they might overestimate their ability to protect themselves or to cope with privacy risks particularly because of their developmental stage and their naivety in internet use. Youn (2009) concludes that early adolescence is an ideal time to inform children about online privacy, the risks associated to it and different ways to cope with such issues. Apart from being an optimal time for teaching children about online privacy, it is probably also the ideal time to present material about online risks and safety in general, since at this stage, children are more likely to seek parental support and be open to parental mediation. In this way they could learn the basics of online safety when they start using the internet, and when faced with later adolescent challenges and risky opportunities, they would already have the tools to handle them. This can also be applied to the development of critical skills in media use in early adolescence, as often the perceptions, representations and how their internet use is mediated can be carried on from childhood into adolescence, and can influence or shape what happens during later years.

Children's Sense-making of Online Risks. In a qualitative study where children discussed perceptions of risk related to mobile phones, their discourse often reflected “the media discourse and rhetoric associated with chat rooms and online identities and risk in relation to online paedophile activities and people pretending to be someone else” (Bond, 2013, p. 7). Particularly, when children did not have a direct experience of risks such as stranger danger or cyberbullying, they were more likely to use stereotypes, discourse and frames drawn from news, educational and entertainment media to make sense of such risks (Mascheroni, et al., 2014). Children express considerable mistrust when they discuss online environments, as they perceive them as a dangerous place for children their age. However,

when children have their own first-hand experience of an online risk situation, there is a shift in the way they perceive online risk and their subsequent behaviours (Smahel & Wright, 2014, Mascheroni et al., 2014). When children actively manage risk, their role as social actors is reinforced. This has implications in mediating risk as it cannot be assumed that children are merely recipients of risk experiences but they are also able to reflect and respond to the risks they perceive.

Children also assign responsibility to their peers who find themselves in risky situations and often label this behaviour as ‘stupid’. It is not uncommon that when discussing situations of teasing, harassment and cyberbullying, children emphasise the responsibility the victims have in such situations and blame them (Jorge & Farrugia, 2017). If compromising photos are shared for instance, despite the fact that the ‘perpetrator’ sharing the photos has a role in the wrongdoing, the ‘victim’ is held responsible nonetheless, and this is perceived by the children themselves as the risky behaviour (Cabello Cádiz, 2011). This was also found in the EU Kids Online qualitative research (Smahel & Wright, 2014) when children used punitive terms to describe their peers’ risky behaviour online.

Adult internet users tend to have an optimistic bias when considering their susceptibility to online risk. People think that when compared to others, they have a decreased likelihood to have negative experiences. This bias in turn influences the way they perceive and behave in relation to certain risks. Results from Cho et al. (2010) confirm that this bias is influenced by internal beliefs and individual differences. The belief that one is able to take the necessary measures to prevent negative experiences is one’s perceived controllability. It is evident that “heightened control beliefs reduce risk estimates at the personal level but increase them at the societal level” (p. 992) as this gives the individual an increased sense of control and a feeling of being less vulnerable. This study also pre-empted Bond’s (2013) finding that children who have a prior experience of risk are more apprehensive of encountering risk in the future when compared to those who had no such experiences. On an individual level, the prior

experience of risk even if the perceived controllability is high, influences the perception of risk. When analysing the way others' vulnerability to risks is perceived, Cho et al. (2010) found that a high perceived controllability and the presence of prior experience of risk increased the sense that others are more vulnerable to risk.

Harm as a Result of Online Risk

Buckingham et al. (2007) argued online harm is assumed to be significantly vaster than it actually is, when it is not analysed from children's perspectives. Livingstone & Haddon (2012) further claimed that only children can be the ones to assert whether an experience was harmful to them or not. Yet, understanding the extent of harm as a result of exposure to online risk can be elusive to researchers, particularly because some harmful effects remain unknown or unreported. Moreover, it is the exposure to risk that can also increase resilience in children, making the removal of all risk rather unrealistic, and also problematic in another sense (Livingstone & Haddon, 2012). Few children who encounter risks are harmed by these experiences, but often it is the younger children who are more upset and bothered by these experiences. This aspect is particularly significant to the current study as children are increasingly using the internet from a younger age, and this subsequently increases their exposure to both opportunities and risks, possibly also exposing them to harmful effects (Livingstone et al., 2011a). These experiences could also impact the children's representations of online safety and risk and these in turn affect their behaviours and attitudes towards new media.

Young victims of cyberbullying experienced negative emotions such as disillusionment and distrust after being bullied online. These experiences can bring about a decrease in self-confidence and an increased sense of loneliness. Negative effects such as nightmares, weight gain and an increased aggression can also happen, and some, albeit few, also self-harmed (Šleglova & Cerna, 2011). Over 25% of Maltese children in the study by Cefai and Galea (2016) experienced a form of bullying more than once a month. Malta ranked

in the 4th place in comparison to other countries for children aged 10 to 12 who experienced relational bullying. Although the research does not distinguish traditional bullying from cyberbullying, this finding is significant given that both types of bullying often occur together (Perren, et al., 2010) and the potentially harmful short-term and long-term impact that bullying can have. Perren et al. (2010) found that adolescents who were victims of cyberbullying experienced more depressive symptoms compared to those who had not had such an experience. The characteristics specific to online bullying, such as anonymity and the persistence of online messages, might make the prognosis worse for victims of cyberbullying.

When children are harmed as a result of an online experience, ideally the impact of their experience is curtailed, and they have enough support to recover from their negative experience. In situations of abuse and harassment, UNICEF (2011) suggest that interventions should focus on rebuilding trust and helping the children process their experience, regain control and correct any distortions or misperceptions they have about themselves.

Coping with Online Risk.

The anxiety that adults have about children and risk, whilst being fuelled by the wish to safeguard children, can often backfire. When children's online activities are restrained, this could limit their autonomy and their opportunities to acquire the relevant coping skills (Bond, 2010). Several children who are faced by online risks are able to avoid them or else adopt some form of coping mechanism to deal with them, and most are not harmed by the experience. Children exhibit a range of coping strategies (Smahel & Wright, 2014). They can deal with the problem themselves or seek support from others such as family members, peers or other support available from institutions such as internet hotlines or the police. Another technical way of coping involved blocking or deleting messages that upset them. Finally, at times children opted for avoidance or disengaging strategies to distance themselves from the negative experiences as another form of coping.

Notwithstanding this, it would be a mistake to overestimate children's ability to protect themselves, particularly because the warning cues that serve a protective function for children offline are not always available online (UNICEF, 2011). Boundaries in the online world operate differently from the traditional boundaries of privacy in the offline world and sometimes such boundaries do not even exist. Children might feel safer when sharing information that is personal or sensitive from the privacy provided by their bedroom, but they "can expose themselves, wittingly or unwittingly, to an unknown worldwide audience, potentially increasing the risk of harm" (p. 5).

Asking children not to post information online is rather useless and quite unrealistic given the pressures they have from their peers both to use SNS and to entice through what they post. Thus, rather than risk prevention, UNICEF (2011) advocate for the need that children learn to cope with online risks. In fact, one of the four pillars proposed by UNICEF (2011) as part of the framework for child safety online is the need to empower children and enhance their resilience to harm: "child agency is critical" (p. 15). For this to happen, primarily children need to have sufficient information to make informed decisions and avoid risks where possible or else seek help when they feel they need it. Moreover, reporting mechanisms need to be effective, while parents and professionals also need to be taught how to recognise and protect children from risks. Children also have insights and experiences that can be used in protective campaigns. Finally, it is also crucial to have policies that enforce a zero tolerance to violence while promoting respect, decency and acceptance. Children have a very important role in managing their online risk experiences. If they themselves are involved in creating strategies to help them combat risk, it is more likely that such strategies are relevant to them, thus increasing also their effectiveness. When children have the necessary information, they are more empowered to engage in preventive behaviour and seek support when they encounter problems.

When analysing coping strategies that were often used by victims of cyberbullying, Parris et al. (2011) identified that both reactive and preventive coping strategies were used. Reactive coping involved a reaction to the harassing behaviour after it occurred to stop the bullying behaviour or to lessen its impact. Reactive coping involved avoidance, acceptance, justification or seeking social support. Preventive coping occurred when children took specific actions to prevent bullying situations to happen, such as engaging in face-to-face conversations or taking steps to increase security and have more awareness of what online behaviours might be problematic. The use of reactive coping was more common. Actions included technical coping (e.g. notifying administrators), avoiding the stressful situations, using defensive strategies and defence mechanisms and seeking social support. Social support was frequently sought from peers, as participants often feared their parents' reactions or rather, overreactions to bullying incidents. Children also learnt preventive coping measures such as how to identify a possible perpetrator and their online behaviours become more cautious in providing personal information online after such experiences. Technical coping was ineffective because when the children reported the bullying, there were no consequences for the bully. This is not a positive finding as children are often taught to use such reporting tools, and if they see that no action is taken, children can feel rather helpless. In fact, children did mention a sense of helplessness vis-à-vis bullying and reported that very little can be done about it (Šleglova & Cerna, 2011; Parris et al., 2011, Smahel & Wright, 2014).

Media Literacy as a Preventive and Coping Strategy. Media literacy is an important tool for children to learn how to use media effectively and gain benefits from its use. It also has a preventive role and can also be a coping tool for children when they face online risks. Fischhoff (2005) defines media literacy as the ability to know “how media affect us emotionally, cognitively, and behaviourally, and how to defend against their messages” (p. 14) and emphasises how it is “vital for a free, informed society” (p. 14). Media literacy is presented as a form of defence from the manipulations of the media. However, with the

increasingly participatory nature of the internet, and the multitude of media uses which are not just limited to entertainment and information purposes, media literacy is wider than this. Technological competence does not mean solely the ability to access and use information, but also knowing how to evaluate and interpret such information (Leung & Lee, 2011).

Livingstone and Helsper (2010) adapt the definition of media literacy from Christ and Potter (1998) to define internet literacy as “a multidimensional construct that encompasses the abilities to access, analyse, evaluate and create content online” (Livingstone & Helsper, 2010, p. 311). Together, these interconnected skills form a dynamic approach to media literacy. Given that risky activities often co-exist with opportunities, this literacy is key to managing online experiences. While there are certain continuities in applying these four skills to digital media literacy, it is also important to understand how they differ from traditional media literacy, as these might present additional difficulties for online users. There is evidence that digital skills contribute significantly to online opportunities (Livingstone & Helsper, 2010). This finding is complemented by the research findings from Leung and Lee (2011), where young people with more digital literacy skills were harassed and solicited for private information less than those who are less media literate.

The fact that new media make available a wide variety of content has increased cause for concern and highlighted the increasing importance of children learning media literacy that includes a strong component of digital skills. O’Neill and Hagen (2009) warn against adopting a restrictive approach that focuses solely on digital competencies or technical skills. Instead, they argue, digital literacy “initiatives must have both a bottom-up and top-down level of knowledge and input” (p. 236). This implies that digital literacy education should be based on the children’s experiences and needs, coupled with knowledge of how they are using the internet. Besides it must also take into consideration the ethical, legal and sociological implications of the use of new media.

In 2019 the Digital Intelligence (DQ) Institute identified eight areas, namely digital identity, digital use, digital safety, digital security, digital emotional intelligence, digital communication, digital literacy and digital rights which give rise to digital intelligence (Park, 2019). For each of these areas, three digital competencies that build on each other were identified, thus producing a list of 24 digital competencies each with its own taxonomy of knowledge, skills, attitudes and values. The list of competencies is exhaustive, and it is rather idealistic to expect everyone, to possess all of these competencies. Nonetheless, some of these competencies can be adapted to teach digital skills to children as part of media literacy education.

The DQ classification of media literacy (Park, 2019) reflects an issue with terminology and definition. Here media literacy is one of the competencies categorised under digital literacy. Other authors consider media literacy as encompassing digital literacy. I prefer the latter categorisation of media literacy being an umbrella encompassing skills related to accessing, analysing, evaluating and creating content which are applicable to all media, including new media. Given the pervasiveness of new media in children's lives, it is crucial that children, teachers and parents collaborate and exchange their ideas about risks and safety online to ensure an ongoing, informed and relevant process of media literacy education that incorporates digital skills.

The Child's Immediate Context

The aspects mentioned in the previous section impact children's understanding of online risks, however, their immediate context contributes to this sense-making as well. Parents, other family members, the children's educators and peers are what Smahel and Wright term the social mediators, or those "agents that have an influence on children's experience of the internet" (Smahel & Wright, 2014, p. 126). These mediators can be influential in creating positive experiences online and in supporting children's coping

strategies when they are faced with problems and they contribute to the way children understand online risk.

Parents

A study carried out by McAfee in 2013 found that parents of tweens (10-12 years) felt overwhelmed by technology. They felt that their child was savvier than them and that they had limited time and energy to figure out what their child was doing online. Clark (2013) confirmed this bewilderment that parents can feel when faced with the challenges that technology creates through her interviews with parents. Parents would very much like to have a way to help them identify effective responses for helping their children online, but no such thing as a parent app exists. Young people can feel their parents' sense of loss where technology is concerned and it is because of this that children can probably get away with many things online. In fact, several child respondents (McAfee, 2013) claimed they would change their online behaviour if their parents observed them more closely. More than half of tweens in the study also claimed that they are able to hide their online activities from their parents, and this includes a vast repertoire of behaviours such as deleting history, using private browsing, creating other email addresses or fake profiles and having privacy settings to make content only viewable to friends but not parents or adults. Often, such behaviours are carried out because children feel that their parents would not understand their online life. Maltese parents confirm that they have several concerns and fears about their children's online safety (Farrugia & Lauri, 2018). Yet, Clark (2013) emphasised that parents only need to learn to deal with some new situations because the basics of parenting and development remain the same. Parental mediation is essential for children to not be excluded from the online domain, as it provides them with education and guidance to navigate this world, while simultaneously learning skills and tools useful for their development.

Nonetheless, parental mediation is not always an easy feat for parents. Salvoni (2009) found that all parents were concerned with online dangers, but that often this did not translate

into proactive actions unless there was a specific situation directly related to their own child. Parents gained awareness of online dangers through various sources such as the media, their own children and other parents, and they considered themselves knowledgeable about these dangers. Yet, despite this, several claimed that through participating in the study, they became mindful of other potentially dangerous issues they had not considered before. This indicates that parents themselves also need education and training in helping their children avoid online risks. If parents do not have the necessary tools to help their children, it would be a rather disappointing experience for children who seek the help of their parents when they have a problem online and discover their parents are unable to help them.

Another study about parents' attitudes towards parental controls (Hart Research Associates, 2011), showed that parents felt that traditional media was easier to monitor when compared to new media, particularly mobile devices. This indicates that such devices are presenting parents with a greater ordeal when safeguarding their kids. Monitoring children's behaviour was also found to be more difficult when children spent more hours online and for older children. The parents' main concerns were about their child's personal safety online. This included anxieties about sexually explicit content the children could access or possibly even send to others, accessing content inappropriate for their age and communicating with strangers. Parents were also worried about their child being bullied on the internet, and issues such as spam, oversharing and excessive use of the internet.

Parents' education level was also related to the sources they used to find safety information (Hart Research Associates, 2011). Parents who had a tertiary education level sought information mostly from news media, while those with a high school education level or less relied mostly on other parents as a source of online safety information. The majority of parents spoke to their children about their online behaviour and set rules or limits to children's online behaviour as a means to keep them safe. Around half the parents mentioned using parental controls. Those who did not use such tools said they felt they were rather

unnecessary, either because they had rules about internet use, or they felt they could trust their child online. Parents also blocked and monitored their child's internet use as other tactics to safeguard them. Parents who had children of different ages, used different levels of filters, as what is suitable for a teenager might not be suitable for a younger child. Configuring such filters can be a daunting task for a parent (UKCCIS, 2012), and not all parents may be adequately equipped with information, skills and tools to support their children online.

A particular dilemma for parents for children below 13 years is whether to allow their children on SNS or not. If most of their child's friends are on such sites and this becomes a place to hang out, chat and plan activities, it is very difficult for the parent to refuse access, especially when their child is feeling excluded. Sometimes it is the parents themselves who help their children deceive websites when it comes to the age limitation issue. In a study about Facebook and parents with children aged between 10 and 14, Boyd et al. (2011) found that 72% of the parents interviewed reported that their children joined Facebook when they were younger than 13. Some parents even reported helping their child set up the account. Most parents were aware of the age restrictions, even though not all of them were aware this was 13 years, and some also declared that they were not aware that these restrictions were a requirement and not simply a recommendation. Hardly any parents mentioned privacy and legalities as the reasons why such restrictions exist on Facebook. Parents often thought that these were related to age-appropriateness of the content or the child's age, which might be the result of parents' representations of other restrictions based on age such as driving or drinking. Apart from fuelling the debate as to whether age restrictions are an adequate barrier for protecting children online, this aspect highlights an important issue in parental mediation. For parents to be able to provide adequate mediation, they themselves need to be informed and have the relevant information to pass on to their younger children. Their children are often savvier and well-conversant with technologies, and unless parents exhibit technological know-how, children would not perceive them as valid sources of information.

Techno-Parenting. Apart from having changed children's lives, technology has also changed parents' or carers' lives who have to adapt their parenting ways to each new wave of technology and engage in what Yardi and Bruckman (2011) term "trial and error approaches to parenting" (p. 3238). The latest issue that makes techno-parenting more daunting is the increasingly mobile nature of the technology children are using, as parents "can be somewhat blind to what their children are doing with technology because it is personal and mobile" (p. 3238). For parenting to be effective, the parents' authority should be in balance with children's agency in their lives particularly regarding personal issues such as self-expression and autonomy.

Parents in Yardi and Bruckman's study (2011) struggled to balance between children's control and their independence, and between their privacy and safety. Parents were generally aware that not all their child's behaviours online could be monitored or controlled, and they expressed concern about the permanency of their children's digital footprint. Some parents had both rules and tools at their disposal when mediating their children's online behaviour. Rules were often about those behaviours that they allowed children to do or not. Rules related to the time of the day when the internet is used, and the frequency or locations of use were more common with the younger children and preteens. Those parents who were less tech savvy struggled with how to set rules about the use of technology. The tools parents use are the components (such as filtering or blocking software and checking the browser history) that keep their children safe. Parents requested to know their children's passwords to have access to their accounts and ask their children to befriend them on Facebook as a means of monitoring their online behaviour. Often parents found the filtering and blocking tools cumbersome to use, particularly because they set restrictions not just on children's internet use but on theirs or other family members' use as well. Ideally techno-parenting helps parents keep their children safe "without compromising agency and autonomy that children need to develop into self-dependent adults" (p. 3424).

Styles of Mediation. Maccoby and Martin (1983) theorised that there are four types of parenting styles based on the parents' demands and responsiveness towards the children. Authoritarian parents are demanding but not responsive and request obedience without providing reasons for their demands. Permissive parents tend to be more responsive and rather lenient in their parenting approach. Uninvolved parents are neither demanding nor responsive and take a rather detached stance. The parenting style that has the most positive effect on children is an authoritative one, where parents are both demanding and responsive: even though they have specific demands from their children, they describe their reasons to their children. These parenting styles reflect different ways of mediating children's experiences online.

Enabling and Restrictive Mediation Practices. Active and regulated mediation are two distinct approaches to parental mediation that imply the use of different mediation strategies (Stanaland et al., 2015). Regulated mediation is based on parents setting rules, limitations and prohibitions that limit the time children can use a particular medium. On the other hand, an active approach towards mediation involves the parent discussing media content and other aspects of the medium so that the child can learn from these discussions. Through active mediation, the parent can have more awareness of the child's experiences and discussions about online safety can take place. As a result, the child learns to engage with media in a critical way and can learn tools and skills that can be transferred to other situations. These approaches are similar to the two broad mediation strategies proposed by Livingstone et al. (2017). Enabling mediation is a strategy used mostly when parents perceive themselves and their children as skilled. Parents respond to their child's agency and incorporate safety measures in their mediation practices. On the other hand, restrictive mediation is typically used more by parents who are less digitally skilled and who have high risk perceptions. They often tend to control their children's use of the internet by setting rules, time limits and ban specific activities.

Parents can also use a combination of these approaches. Promotive mediation is when parents only use an active approach (Stanaland et al., 2015). This kind of mediation is useful in mitigating risks and it is often used with older children. It is through this kind of mediation that children acquire knowledge and skills that increase their resilience vis-à-vis online risks (Notten & Nikken, 2014). Selective mediation is when parents are both active and regulated in their approach, while restrictive mediation is when parents base their approach on rules and limits (Stanaland et al., 2015). Often, when parents are concerned with the negative media effects, they tend to use a restrictive type of mediation. Restricting children's access will curtail the risky possibilities but also the psychosocial and educational benefits they could encounter. Furthermore, this strategy could backfire, as children often try to find a way around restrictions (Notten & Nikken, 2014). By doing so, they would not be able to be open about their online activities or any problematic situations encountered with an adult who can help them.

Different mediation styles can all be relevant and useful methods of mediation for parents. Which one to use will often depend on the different circumstances, issues and situations faced by the children and also on the child's age and the devices in question (UNICEF, 2011). Younger children might need more monitoring or restrictions. However, to learn to engage critically with the media and practice online safety at a young age McAfee (2013) urges parents to have these conversations regularly and early, before the children start experimenting with potential risks. It is in this way that parents can become a reference point for children in the online world.

According to children, the most common ways by which parents used to actively mediate their internet use were to talk to them about what they do online and to stay nearby when they are online. Parents were more likely to be involved in active mediation of internet safety. This included strategies such as helping them when they had difficulties, suggesting how to use the internet safely and how to behave online. Positively, most parents used at least

two modes to actively mediate their child's internet use and to mediate their child's internet safety. Active mediation of internet use and internet safety were higher in parents of younger children and of girls. The majority of parents also used restrictive practices whereby they did not allow children to carry out specific online behaviours. These practices were more commonly used with younger children. However, half the parents of children aged 9-12 allowed their children on SNS. Only one-fourth of parents engaged in technical mediation of internet use, such as parental controls and filters, and only one-tenth of parents used such practices for smartphones (Mascheroni & Ólafsson, 2014). Restrictive and technical mediation can potentially create problems in the family particularly with respect to arguments about those activities the child is not allowed to do and the undermining of trust between parents and children as a result of monitoring online activity.

Mediation and Risk Prevention Strategies. The way parents approach the mediation of online risks could have an effect on the way children perceive and represent risks and possibly on their exposure to risks. Byrne and Lee (2011) investigated children's resistance to risk prevention strategies, and found that children resisted least when their freedom was not impinged on. Children resisted their parents' strategies when they could not understand their parents' behaviours or rules. Authoritative figures are often questioned in adolescence and as peers become more important, children want to belong to their group of peers and thus yearn for independence. To be like their peers, they try novel behaviours, and often there is a fine line between experimentation and risky behaviour. Sometimes when children are not allowed to do something they enjoy, they often find their way around this. Because the behaviour is forbidden, children might become curious, and forbidding them to engage in an activity might have an opposite effect. Children could increasingly engage in the prohibited, potentially risky activity, both offline (e.g. frequenting a specific place) and online (e.g. talking to strangers). The parenting style adopted was related to whether the child and parent agreed upon the strategy adopted. When parents had an authoritarian approach to parenting, children

resisted strategies where parents could access what they did online as they strived for independence. In the case of authoritative parental strategies based on both open communication and control, children expected more democratic strategies from their parents.

When parents restrict children's internet access to safeguard them, children do not perceive this as protection, but as a punishment, as without the internet they would not be connected to their social world. This could also deter children from talking to adults about what bothers them online or problems they come across when online. Apart from wanting to be independent and try to solve their own issues, children might not speak about such matters for fear of making the situation worse, or if they are afraid that their parents will not allow them to use their devices as much as they want (Smahel & Wright, 2014). Another significant finding in Byrne and Lee's (2010) study is that if children perceived it difficult to discuss online risks with their parents, it significantly predicted that children and parents would be in disagreement about the strategies the parents used.

Other Family Members

While parents have the most influential and direct role in children's lives, other family members can impact children's online experiences. Siblings may have several roles that might both help and hinder children's online experiences. Preadolescents often find support about the internet from their siblings, who can also set an example of how to behave safely online. On the other hand, it seems that siblings could also introduce preadolescents to risky behaviour online. Cousins seem to have a similar role to that of siblings (Smahel & Wright, 2014).

Grandparents have an important role in Maltese family life. Often young children are minded by their grandparents when their parents are at work or go out. If grandparents do not have any rules about internet use and do not have the skills and tools to use the internet, they might not be able to match the parents' stance regarding online behaviour, thus giving children mixed messages and possibly an alternative space to do things that parents do not

allow. Research about the older age cohorts indicates some cause for concern. According to Eurostat (2020), over 90% of Maltese aged between 16 and 54 use the internet, but this decreases to 76% in those aged 55 to 64, and decreases further to 47% in those aged 65 to 74. This could be indicative of the presence of a digital divide between generations. Since grandparents would mostly belong to the latter two age cohorts, and this lack of internet use could imply that grandparents might not be sufficiently adept at mediating children's online experiences when they are minding them.

School

After their home, school is often the place where children access the internet from most (Malta Communications Authority, 2010; Livingstone et al., 2011a; Mascheroni & Ólafsson, 2014). Primary teachers reported that the focus of protecting children online at school, was mostly done through blocking and filtering tools instead of focusing on education (Wood & Atkinson, 2011). From the qualitative study carried out in nine European countries, schools were involved to different extents in mediating children's online experiences (Smahel & Wright, 2014). Some schools helped children with online risks, while some others did not, or even used scaring tactics to explain the dangers of going online. Schools often held e-safety lessons and awareness campaigns to help children protect themselves and keep negative experiences to a minimum. Smahel and Wright (2014) recommended that teachers and schools should not only highlight the negative aspects of the internet or focus on its negative consequences. Instead, they could give children safety advice and support their online experiences, encourage children to report problems to them, while also emphasising the benefits of the internet and facilitating access to opportunities. When educators use real-life examples to provide advice about online safety (such as the story of Amanda Todd which was frequently mentioned), they also have a responsibility to avoid creating panic while also presenting online risks without stereotyping. Skinner et al. (2014) found that teachers in a school environment where the principal provided adequate support were more likely to have a

sense of self-efficacy in dealing with bullying incidents at school. Even though this study is not representative of all teachers and school environments, it indicates that the school climate might be important in enhancing teachers' abilities to deal with problematic situations online.

Role of Educators. The way children perceive the role of their educators is very important in absorbing the online safety messages put forward by the school. Children's trust in their teachers can be very effective, as they would accept or even ask for a teacher's intervention themselves when they encounter a problem. Apart from fostering an atmosphere of safety, educators face the challenge of being constantly up to date and to have adequate skills to be perceived by children as competent. Some schools prohibit the use of devices at school, often as a reaction to incidents that happen at school. Yet, the rules set are sometimes not adhered to by the educators themselves, making children question how relevant these rules are (Smahel & Wright, 2014). This is indicative that policies and restrictions at school, while necessary, might not always be the ideal way to handle activities and incidents in the online environment.

Tarapdar and Kellett (2011) found that children viewed their schools positively and considered them as safe and secure spaces when the schools had measures against bullying, opportunities for conflict resolution or peer-support, and were involved in prevention and education. Collaborative efforts between educators and parents were considered essential to ensure a coordinated effort that supports the child's online safety (Smahel & Wright, 2014). Despite this, when schools or parents inform each other of any issues, this often brings to the fore the delicate balance there is between the child feeling autonomous or feeling their privacy has been invaded.

When it comes to prevention, both educational and peer-support programmes are very important. School policies that consist of a balance between discipline and support are more effective than environments that are more focused on disciplinary actions (Levy et al., 2012). This highlights the important role schools have in intervening when a cyberbullying situation

occurs. Given the consistent finding that often the online bully is known to the children or part of their same social circle, the school becomes a very important context for reconciliation or coping with the bullying situation. Yet, it cannot be assumed that all teachers and educators have the knowledge and information how to handle online situations. It thus becomes imperative that like parents, teachers are professionally trained and supported to have the necessary skills to assist children and help them handle the potential risky situations that they might encounter online both when at school and in the interim periods. Further developments such as the 'bring your own device' schemes, where children can bring their own device to use at school, could also introduce new challenges about responsibility, monitoring and the accessibility of such devices to everyone, among others. These also need to be addressed by the schools in collaboration with the parents.

Peers

New media has impacted how children relate to their peers. Clarke (2009) argues that the fact that technology is an integral aspect of children's social context is beneficial for them. Before Web 2.0 where interactivity became a core feature of the online world, Subrahmanyam et al. (2001) voiced concerns that because activities on the computer were rather solitary, this would hinder children's development of interpersonal and social skills, especially if they made "electronic friendships" (p. 17) rather than interact with peers. Children's views of friendship have changed since new media have become embedded in their lives. For instance, an important milestone of friendship seems to be whether they befriend each other on social media, and the devastating consequences being 'unfriended' or 'unfollowed'. Children can keep up with friends on SNS, even if they are in different countries, and the online environment supports friendship in lieu of offline communication. There is a strong link between children's online and offline realms and SNS seem to have a function in maintaining present relations. The role of trust is very important for children, and friendships on SNS have different levels of closeness (Clarke, 2009). Children also mentioned being careful as to

whom to add as friends to avoid being bothered. These findings about trust and caution when adding friends, seem to indicate that although the term ‘friend’ is applied in SNS, it possibly evokes in children a different form of representation from the ‘friend’ in real life.

Mediating Influence of Peers. A key role that peers have for one another is that of mediating each other’s online experiences in general. They usually show each other how to do things online, share useful material and compare information to assess its credibility, apart from making recommendations about which sites to use. Peers often create pressure on each others to set up an account on SNS, and they also offer practical support regarding online safety (Livingstone et al., 2011a). Peers were important sources of information about online risk and also provided support and advice (Smahel & Wright, 2014). Children’s awareness of particular online risks (such as cyberbullying) often come from their peers, and representations of risks are “negotiated within peer cultures” (Mascheroni et al., 2014, para 21). This shows that peers also have a potential role in being “educators, mentors and advisers” (UNICEF, 2011, p. 7). Children feel protective of other children and they are concerned for those they consider to be more vulnerable than themselves, such as their younger siblings. They also often refer to each other for support related to online risks. Peers also have a role in relation to children absorbing media safety messages. Children might not be open to the content of online safety messages if their peers have positive experiences of potentially risky situations such as meeting a stranger (Staksurd & Livingstone, 2009), as they would not perceive that experience as risky. This might be even more dangerous for younger children who might not always be well-equipped for handling risky situations safely.

Peer friendships on SNS seem to follow a set of unwritten rules and norms such as collecting friends (Clarke, 2009), unfriending each other (Boyd & Marwick, 2011), the compulsion to reply instantly and the pressure to be available incessantly (Buckingham, 2007). Even though children differentiate close or good friends from other friends, some children, even below 13 years still seem to play the ‘game’ of who collects most friends on

SNS and this 'game', curiosity and other factors could easily lead to meeting strangers online and thus encountering risk. The fear of missing out (FOMO) could be a factor in children using their devices incessantly and potentially neglecting other activities they could be doing such as their schoolwork and engaging with others in offline activities.

The family is the first place where children have their first encounters with media. This gives parents and other family members an important role in mediating children's online experiences. Educators also share in this role. Peers who are influential in children's developmental processes, are also a significant aspect of children's online experiences. These social interactions are also where children's social representations develop and are communicated, and thus understanding the child's immediate context can give insights into their representations.

The Maltese Context

The wider context which surrounds Maltese children's online experiences and where their social representations of risk develop mainly consists of the local Safer Internet Centre (SIC) and related policies, the education system, the news media environment and the media industry itself. The media industry is often market-led, and profit is often more important than public service (Buckingham, 2007). It is becoming an increasingly privatised and commercialised industry, and, as a result, more integrated and globalised. The services provided by large corporations such as Google, Amazon, e-Bay, Apple, Facebook, Twitter and others are widely used. The affordances of the internet also allow marketers to gather information about consumer behaviour and target their advertising to specific niche markets. Often children are targeted specifically because of how they can influence their parent's purchasing behaviour. In this media environment children are exposed to both risks and opportunities. Thus, the cultural and social contexts, which provide the framework in which both the children and the social mediators have their online experiences, cannot be removed from the equation. The current section will review briefly the Maltese context and factors that

might be relevant to understanding Maltese children's online experiences. This analysis is also in line with the social representations approach being undertaken in this research, particularly because this theoretical framework asserts the role of cultural and historical aspects in representations. As Rutledge (2010) argues: "as much as we'd like to blame "the media" for a bunch of stuff, it is not separable from society. Human experience does not happen independent of the current social, political, and technological environment" (p. 8).

Cultural Context

The Maltese Islands cover an area of 246 square kilometres and the population is approximately 500,000 people (World Bank, 2020), making Malta one of the most densely populated countries in the Europe. Malta joined the European Union (EU) in 2004 and is the smallest of the 27 EU countries. Malta is no exception to the fact that media content reflects the country where it originates from and that media in turn influence the country itself (Borg, 2009). The characteristics of the Maltese media landscape are shaped by "its oral culture, geographical proximity to Italy, importance given to its institutions and political developments" (p. 20). Malta can be considered as a media rich environment, and in 2009, despite being a small island, it was already rated among the best countries in the European Union for Information Technology. The drive towards making technology more accessible, together with the dominance of the spoken word in the Maltese culture make it easier to adapt to cultural changes brought about by new technologies. This was reflected in the spread of new media and a significant increase in internet users over a short span of time. As Borg (2009) argued, the online world became rapidly accessible and several Maltese people also joined SNS. Being a bilingual country also provides a wider accessibility to different online platforms and services provided in the English Language.

The nuclear family unit is still relatively strong in Malta and parents tend to follow their children closely (Farrugia & Lauri, 2018). Malta is predominantly Catholic, and the influence of the Catholic church is still strong, despite the widening separation between

church and state. The Church's teachings about new media are often discussed during the Sunday mass homilies, which are attended by around 38% of the population (Archdiocese of Malta, 2018). This topic is also frequently discussed by the Church's media. Though Malta is small, insular and Catholic, children's internet use and parents' role are quite similar to those in other European countries (Farrugia & Lauri, 2018).

Although Sant (2009) expressed his concerns that many young Maltese could still be considered digital immigrants, he also predicted that this would change as information and communication technologies became more widely accessible in the country. Through the several initiatives taken, such as providing free internet in public spaces and technological tools becoming more affordable, this expectation is now the current reality. As the data from MCA research indicates, over 98% of Maltese children have access to the internet (Lauri et al., 2015). With the positive high prevalence of internet use among Maltese children and young people, this becomes increasingly salient to help them navigate the online sphere, which is already very central to their lives and is increasingly becoming more important with the diversity of platforms available and the widespread use of social media.

Socio-Economic Status and the Digital Divide

Despite the media-saturated environment we live in, the internet and new media are not equally accessible to everyone (Buckingham, 2007). The 'digital divide' can be defined as "the differences between the connected versus those not online at all" (Hargittai, 2010, p. 92). This divide is present among communities or groups that are less privileged (Grant, 2006) and it results in a form of inequality. The MCA stated that the "lack of access or inability to use ICTs will contribute directly to poverty" (Malta Communications Authority, 2012b, p. 19). In 2015, around 3% of Maltese could not afford an internet connection at home (Eurostat, 2020). Those who are not connected are excluded from access to significant informative and communicative resources, and this can have repercussions. Children coming from families that have a higher disposable income usually have better access to technology and

opportunities when compared to children hailing from working-class environments (Livingstone & Helsper, 2010). However, this digital divide happens also because of the quality of tools that children have together with the abilities and ‘cultural capital’ they need, rather than just to the access to technology (Buckingham, 2007, p. 84). The implication is that children coming from a lower socio-economic status not only have a different social environment but their media environment is also dissimilar. This includes the support they have available when using technology, which could expose children to risk factors. Moreover, Notten and Nikken (2014) found that children hailing from a vulnerable background seem to engage in risky online behaviour more, such as interacting with strangers. Even though a causal relationship between these vulnerability and online risk behaviours cannot be presumed, it may be that emotional difficulties influence one to seek support online, possibly anonymously. This has significant implications for the 9.7% of children in Maltese schools who have social, emotional and behavioural difficulties (Cefai et al., 2009). These difficulties can make them vulnerable online, exacerbating their susceptibility to other risks and creating a vicious cycle. It is rather disquieting to think that the widespread use of internet could give rise to another form of social inequality based on one’s socio-economic condition.

The Maltese Regulatory Framework

The MCA is the regulator of communication services in Malta. Apart from TV, radio, postal, telephony and ecommerce services, it also responsible for Internet distribution services and to help develop the country’s ICT potential while also undertake digital inclusion initiatives to ensure that both businesses and individuals can partake in online activities and are able to benefit from the use of ICTS. Moreover, “its regulatory activity should serve to overall contribute to Malta’s transition to a knowledge-based society and economy” (Mission statement, n.d, para. 3).

As part of its ‘Networked Society’ policy, the MCA addresses the importance of both access to technology and its safe use. Until 2019, it was coordinating the BeSmartOnline!

programme, that “focuses on helping children and youths build digital competences to be able to use the Internet safely and responsibly” (MCA Corporate Profile, 2013, p. 12). Specifically, the Besmartonline! Project, “is a national initiative that concertes the efforts of various national stakeholders working towards the establishment of a Safer Internet Centre (SIC) in Malta” (Safer Internet Centre in Malta - EU Safer Internet Programme, n.d., para. 1). This initiative was co-financed by The Safer Internet Programme of the European Union, and it aspires to empower and protect youth from online risks both by raising awareness and acting to prevent online material and behaviours that could be harmful or are unlawful. Apart from the MCA, Besmartonline! is also coordinated by Aġenzija Appoġġ, the Maltese Commissioner for Children, the Malta Police Force Cyber Crime Unit and the Directorate for Learning and Assessment Programmes (DLAP). Other strategic partners amongst which the national Youth Agency, and the University of Malta form part of the Besmartonline! Advisory Board. In 2019, Tech.mt became responsible for the coordination of Besmartonline! instead of MCA. Aġenzija Appoġġ coordinates Supportline 179, which is the local helpline and hotline for both internet-related issues and reports of abusive content.

In 2012, 25 members of the ICT Coalition for Children Online which includes companies in the ICT sector, launched a set of Europe-wide principles to safeguard children online and help them gain the benefits associated to the use of technology (“Companies unite to launch”, 2012). These principles aim to inspire best practices and encourage self-regulation in six key areas of children’s internet use namely content, parental controls, dealing with abuse/misuse, child sexual abuse content or illegal content, privacy and control, and education and awareness (“Principles for the safer use”, 2012). Each member published their commitment of how their corporation plans to adhere to these principles (ICT Coalition, n.d.). One of these outcomes is that Facebook now has a reporting button next to each item of content, and although there have been some criticisms about the lengthy process of reporting, and the aftermath of reporting, it is an essential tool. Facebook also allows social reporting

where content that might not violate the terms of service, but is upsetting to the viewer, can be reported. Other SNS have also instated reporting and blocking tools. Following the implementation of the European General Data Protection Regulation (GDPR), Malta maintained the age of 13 years as an age restriction for services provided under the COPPA rule.

Legislators, the industry and the private sector all have a role in the protection of children online. UNICEF (2011) suggests that while children need and should be empowered, abusers should no longer go unpunished. For this to happen, it needs effective national laws and strategies for their enforcement and collaborative action with child protection agencies. Further international cooperation and the involvement of Internet Service Providers are also essential in protecting children from abuse. Besides having legislations in place, accessibility to harm can also be reduced through codes of conduct and self-regulating systems, blocking or taking down sites with inappropriate content, having safety features set to safety by default and making filtering and parental control software accessible (including awareness and education about it) to more and more parents.

Education System

Ito et al., (2008) highlighted the importance for education institutions to be up to date with the constant developments of new media and the challenges they provide, in order to maintain their relevance to the technological era. This is reflected in several measures taken by the Maltese Ministry of Education and Ministry for Education and Employment through the years. The National Curriculum Framework was established in 2012 as a framework for learning between 2013 and 2026 (Ministry for Education and Employment, 2012). Children's education should help them develop knowledge, skills, competences, attitudes and values to improve their quality of life. It specifies digital literacy as one of its aims which is set to be achieved through cross-curricular themes. It is incorporated in the various subjects taught, so that students "acquire basic skills in ICT organised around four major overlapping strands:

data sources and manipulation; information communication and presentation; programmed control; and social, ethical and personal aspects” (p. 37). While the intent of including digital literacy as a cross-curricular element is commendable, it needs to be ensured that it is actually being applied across the curriculum and not forgotten as what happened with Media Education. The subject was introduced in Church schools in the 1980s, and State schools decided to include it across the curriculum, with topics related to the media being included within other subjects. Yet it was not always given its due importance, and its importance also diminished in Church schools since it competed with other subjects considered to be more important (Borg & Lauri, 2006).

Digital literacy is taught in schools is through eLearning teachers. In primary schools, eLearning teachers support teachers in using technology (such as the interactive whiteboards) in the classroom. In secondary schools, eLearning teachers give students Digital Citizenship lessons while these teachers are replacing other teachers (M. Borda, personal communication, April 27, 2016). The National Curriculum Framework specified that eLearning will eventually be replaced by Digital Literacy and eventually ICT will be removed from the scheduled subjects (Ministry for Education and Employment, 2012). In fact, as from 2019, through the ‘My Journey’ programme, Maltese children can now diversify their subject choices within Secondary School to include Vocational Education and Training (VET) subjects (Ministry for Education and Employment, 2016). Media Literacy is one of these subjects which is offered in 8 out of 11 colleges in Malta and Gozo, and Information Technology is also available in 10 colleges.

Personal, Social and Career Development (PSCD) is offered in both primary and secondary state schools, with the aim of “empowering individuals to develop skills that enhance their well-being by identifying developing their potential, thus enabling them to participate effectively in their social environment” (“Primary sector - Personal and Social Development,” n.d.). As part of the syllabus for this subject, children are introduced to topics

related to bullying and safety in the first three years of primary education. Once children start approaching middle childhood, they discuss several topics that also help them deal with the changes they are going through such as emotional, physical and sexual changes while continuing discussions about safety. In year 5 and year 6, PSCD teachers use media such as cartoons about digital citizenship to discuss the internet. Four workbooks have just been produced about digital citizenship that will cater for children in years 3 to 6, and a number of video clips and posters have been produced to discuss different themes about the online world with children in years 7 to 11.

An educational toolkit with lesson plans that can be used by class teachers for cross-curricular activities has also been prepared for primary school children and a similar resource is being planned to be available for secondary school educators by 2021 (S. Camilleri, personal communication, March 12, 2020). In Year 8, when children approach the age of 13, they discuss communication on SNS, the boundaries related to this kind of communication, and the effects of cyberbullying and how to deal with them during PSCD lessons. In the final three years of secondary education, children further discuss online safety and the risks of oversharing, online communication, respect, online relationships and the risk that could be associated to them, their digital footprint, and their responsibilities in the digital world. Church and Independent schools are not obliged to follow the syllabus for State schools to the letter, but they have to cover the minimum content established by the National Curriculum Framework. Most Church and Independent Schools do not have PSCD lessons in the primary years, and generally, in the secondary years, they dedicate fewer lessons than State schools to the subject (S. Camilleri, personal communication, August 25, 2015).

In January 2014, the Ministry for Education and employment announced the launch of the 'One Tablet per Child' pilot project as part of the 'National Literacy Strategy for All' policy (Ministry for Education and Employment, 2014a). This educational project aimed to identify how this technology could be introduced in primary education to maximise its

benefits to education and learning. In March 2014, educators were the first to start piloting this project, and children were included between October 2014 and March 2015. (“Introduction of Tablets”, 2014; “Tablets: all you need to know”, 2014). In June 2015, the Malta Union of Teachers (2015) published the results of a survey carried out with teachers, from which around 11% of teacher respondents were part of the pilot project. This survey identified the concerns teachers had, such as the educators’ need for training, proper infrastructure and support, and who is responsible for such devices among others. With tablets becoming accessible to children in schools, adequate media literacy education becomes even more important. Buckingham et al. (2007) emphasise that media literacy should be part of a wider strategy that involves different stakeholders, through which children not only learn technical skills but also the critical, analytical and creative skills to maximise the benefits attainable from new media.

Another aspect of the local educational context that directly addresses a specific online risk is the national policy regarding bullying established by the Ministry of Education in 1999. This specifically stated that bullying in schools was unacceptable and that everyone was responsible to report any bullying acts and to support children. As part of the action plan related to this policy, the Anti-Bullying Services were setup. These include prevention programmes, interventions in specific bullying situations together with support, development and training for students, children and educators (Ministeru ta’ l-Edukazzjoni, 1999). As a follow up to this policy, in November 2014, a new policy addressing bullying behaviour in schools that incorporates recent realities was launched. It is applicable to all state schools and any Church or private schools that show interest in adopting it. This policy emphasises zero tolerance for bullying situations, including cyberbullying. Even though most cyberbullying situations might not occur during school hours, the policy acknowledges that they still have repercussions in the school environment. As established in the prior policy, a member of staff from each school, ideally from the Senior Management Team (SMT) is responsible to

investigate suspected cases of bullying reported by the educators. If it results to be a bullying incident, professionals are involved with both the perpetrator and the victim and also their parents. If the bullying incident is a serious situation, a referral to the Anti-Bullying Services takes place. In 2013, there were 254 referrals to this service (Ministry for Education and Employment, 2014b; “Teachers obliged to report bullying,” 2014; “Zero tolerance is the aim of new policy on bullying,” 2014).

The Media and Moral Panics

Apart from mediation of the online experience through parents, their peers and school, mass media also clearly influence preteens’ conceptualisations of online risk (Cabello Cádiz, 2011). Media coverage influences the risks that are most often mentioned in public discourse (Smith et al., 2005; 2008), and this also impacts how these risks are represented. However, when analysing the risks encountered by children, their experiences do not always match with what is commonly covered in the media (Staksurd & Livingstone, 2009). Even though today’s children are not more at risk than the children of other generations, the way media reports about online risk make it seem as though they are, and often create unnecessary anxieties (Clarke, 2009). The dangers children face are blown out of proportion, and the real risks are clouded in moral panic (Boyd, 2007). The media in Malta are no exception. They often use sensational headlines to attract their audiences’ attention. Yet, Buckingham and Strandgaard Jensen (2012) argued that although media often refer to the ‘child-as-victim’, one should not conclude there needs to be moral or media panic about online risks. The cycle whereby anxieties about an old medium dissolve and the medium becomes accepted until a new medium becomes the new scapegoat, repeats itself, evidencing the irrationality of moral panics. On the other hand, judging the past through the lens of the present is not ideal, as often there would be some form of truth in the moral panic, even though it is often not to the extent that the media present it.

The picture presented by the media is often distorted. Young et al. (2017) found that when media reported stories about suicides associated with cyberbullying the way they reported them did not follow the media guidelines for suicides or bullying and the reports heightened anxiety about cyberbullying. Young et al. (2017) argued that focusing only on the cyberbullying was a way of anchoring the tragic act of suicide. Media reports often presented a causal association between cyberbullying and suicide, while other risk factors in the victims' lives were completely overlooked.

Social Representations Theory, Children and New Media

Wildavsky and Dake (1990) concluded that “individuals perceive a variety of risks in a manner that supports their way of life” (p. 57). This has implications for the differences in social representations of risk between children and adults. When children find that the internet is an important space for satisfying their various needs, they might be less likely to represent their experiences in terms of risks the way adults do. Clarke (2009) advocates policy makers to acknowledge children's experimentations online and to understand what steps they are already taking to protect themselves. Risk taking, she argues, is part of becoming adults, and this cannot be ignored. Research often focuses on adolescents' interactions with the media, and this deflects attention from preadolescents. Preadolescents are also going through significant changes and interact with new media in their own way, making them distinct from adolescents, with different needs and experiences of risk. It is only through understanding their experiences, the way they make sense of them and their emotions related to risk that interventions can be targeted specifically for their needs.

Social media allow the blending of the old and the new and create opportunities to connect with others and make meaning (Peck, 2008). This can be said for new media in general rather than only social media, and it lends itself very well to an analysis using social representations theory. Anchoring and objectification processes occur constantly as new elements are incorporated in old representations and what is abstract is given a solid base. The

shared nature of new media also brings about shared meanings and this is why, and also where representations are communicated.

Children's shared meanings are different from those of adults, particularly because "to some extent, the view of the child at risk stems from the adults' sense of exclusion from children's digital culture" (Buckingham, 2007, p. 85). Apart from feeling excluded, often adults and parents express a sense of loss of control when caught between moral panics and their children's developmental needs. Social representations begin to develop from these anxieties (Joffe, 1999), but parents' and children's anxieties are definitely different. For instance, observing their child spending a significant time using technological devices can easily be represented as an addiction by the parent, notwithstanding the fact that the child would be doing different activities and accessing different opportunities during this time.

This chapter has discussed preadolescents and the risks they can face online, and how these are mediated by their social contexts, with the aim of understanding the role of these different components in giving rise to preadolescent's social representations of online risk. Even though, major developmental changes happen during adolescence, the preadolescent years have a very important role in a child's development, and unless there is a solid foundation on which to build these developmental changes, the young person will struggle to achieve a balanced and healthy development. With new media taking on an increasingly central role in children's lives, developmental discussions can no longer ignore their roles and importance. While development is still in progress, preadolescents are accessing SNS but not just. Online, they can find a myriad of opportunities that can also be risky opportunities without the need for elaborate internet skills. Inappropriate content can be accessed through a simple Google search, but the possibilities for having risky experiences increase with other, more elaborate platforms. Children's psychosocial environment can be considered as the basis that supports development. This includes the children's personal selves and experiences, their families and peers, educators and the larger technological and mediated environment they live

in. All these can be reflected in children's social representations. This thesis will attempt to identify preadolescents' representations of online risks, with the aim of understanding how these representations impact risk and safety behaviours online, and which interventions might be necessary to decrease children's vulnerabilities to such risks.

CHAPTER 3

METHODOLOGY

Chapter 3. Methodology

The methodology one employs to study the research question emerges from the paradigm the researcher holds, which in turn guides the research strategy and is then translated into specific methods for carrying out the research (Creswell, 2009). This chapter presents the philosophical underpinnings of research and my own position in this regard to finding a suitable methodology to answer the research question: How do children make sense of risks in new media?

Crotty (1998) commences his seminal work about the foundations of social science research with the assertion that the way the terminology is used is often confounding. To define the beliefs that guide research, Creswell (2009) opts for the term ‘worldview’ that includes “a general orientation about the world and the nature of research that a researcher holds” (p. 6). While this is one of the accepted definitions of a paradigm, Morgan (2007) criticises a definition that incorporates the researcher’s whole worldview as being rather vast in relation to research. Other definitions of paradigms include it being an epistemological stance, beliefs shared by a community of researchers and model examples of research. My preferred definition of a paradigm is the philosophical position the researcher holds regarding aspects concerning the philosophy of science. This mainly includes ontology, epistemology and also axiology, and it is one of the definitions Morgan (2007) presents when reviewing some of Kuhn’s definitions of a paradigm.

Philosophical Assumptions and Research Paradigms

Ontology and epistemology are two concepts from the philosophy of science that are the basis upon which research choices are justified. Ontology can be defined as how the

nature of social reality is construed and epistemology refers to the different ways of gathering knowledge about the world (Tuli, 2010; Grix, 2001).

The opposing ontological positions about the nature of reality and being (Ponterotto, 2005) are realism and relativism. Naïve realism is the stance that objects exist, irrespective of whether they are consciously perceived by the human mind or not, and can thus be observed and discovered independently of the researcher. Another version of realism, critical realism, holds that there are several realities that can be understood imperfectly. On the other hand, relativism presupposes that reality is constructed and its meaning differs according to the individual (Scotland, 2012; Guba & Lincoln, 2005; Ponterotto, 2005).

Epistemology questions the relationship between knower and known, how knowledge is attained and what knowledge actually is (Tuli, 2011). An objectivist epistemology claims that the researcher and the researched are independent of each other and that reality can be discovered through research. Contrastingly, a subjectivist epistemological position emphasises that knowledge is constructed through conscious interactions with phenomena (Scotland, 2012, Guba & Lincoln, 2005). Knowledge emerges through the researcher's immersion in the field of research.

Guba and Lincoln (2005) include axiology as an important element in their paradigmatic considerations reflected in research choices. Ponterotto (2005) defines axiology as the role of values in the research process. The opposing poles of this debate are centred on whether it is possible to have research that is value-free or else that research is always bound by the researcher's (and others') values (Tashakkori & Teddlie, 1998).

The different paradigms adopted by researchers result from the different philosophical assumptions they hold (Creswell, 2009). The paradigms result in different research strategies. Originally, social sciences adopted the methodology of the natural sciences and research was mostly quantitative, based on the positivistic paradigm, and concerned with phenomena that could be observed and measured repeatedly and objectively. However, researchers from the

sociological and anthropological fields were dissatisfied with this outlook on social reality. They postulated that research should aim to explore the meaning of social reality from a relativist and subjective viewpoint. These philosophical claims gave rise to the constructivist paradigm that favours qualitative research methods (Tuli, 2011). Other paradigms emerged based on different ontological and epistemological positions. These paradigms are often associated to either qualitative or quantitative research. Different authors have diverse views about which are the paradigms relevant to research. Some of these are presented in Table 2 below.

Table 2

Research Paradigms

Authors	Paradigms
Rossmann and Rollis (2003)	Positivism, Critical Realism, Critical Humanism, Descriptive Interpretivism
Guba and Lincoln (2005)	Positivism, Post-positivism, Constructivism, Critical Theory, Participatory Inquiry
Lather (2006)	Post-positivism, Critical theory, Interpretivism, Poststructuralism
Willis (2007)	Post-positivism, Critical theory, Interpretivism.

Choosing a Research Strategy

The paradigm which the researcher favours as well as the research question lead to an evaluation of qualitative and quantitative methods. Quantitative research generally involves large samples that yield numeric data and is often concerned with causality, regression analysis, model construction and empirical observations. A quantitative strategy can either include an experimental design or a non-experimental design where tools such as surveys are used (Creswell, 2009). This type of strategy is characteristic of research driven by positivist and post-positivist paradigms.

Constructivism and Social Constructionism emerged as a reaction to positivism and the research methodology is often qualitative. This often implies less participants but involves a depth of analysis that quantitative research cannot provide. A qualitative approach focuses on a holistic understanding of the participants, including their context (Branthwaite & Patterson, 2011). Some research strategies that are typical in qualitative work include phenomenological research, grounded theory, ethnography and narrative research (Creswell, 2009). Various tools are available to the qualitative researcher. Open-ended questions in interviews and focus groups are often the main tools used to collect qualitative data, but other tools can also be applied to this research strategy.

Quantitative and qualitative strategies are “habitually placed as ‘mutually antagonistic’ on the grounds that they are framed by divergent epistemologies” (Tunariu & Reavey, 2007, p. 820). Researchers hailing from the different perspectives often have very strong attitudes towards what constitutes good social science. However, not all researchers agree that good social science is led by either a qualitative strategy or quantitative one. Some researchers opt for a strategy where quantitative and qualitative research are combined – a mixed methods strategy. Creswell (2009) defines mixed methods as “the use of both approaches in tandem so that the overall strength of a study is greater than either qualitative or quantitative research” (p.4). In choosing a research strategy for the present work, the research question, the theoretical framework and my philosophical stance were considered to identify which strategy would fit the research best.

Researcher’s Philosophical Stance

My own ontological stance is that of critical realism: there are things out there that are true, but that there is not one universal reality. To clarify my philosophical position, I analysed my views about the phenomenon of death. From a realist and objective standpoint, death is when the physical existence of a being ends. From a critical realist perspective, although death is finite for the being who goes through it, the phenomenon does not hold the

same reality to everyone, implying a form of relativism. In phenomenological terms, the experience of death for those left behind is also a very subjective one, and is attributed different meanings by those who experience it, based on different aspects, one of which is the relationship with the deceased. The death of a family member is experienced very differently from that of a stranger or an acquaintance.

In a similar vein, one can say that phenomena exist in 'true' forms, but they are also attributed meaning by the person experiencing them. Likewise, the phenomena of internet use by preadolescents and their specific user experiences, that may or may not include risky experiences, exist in reality. However, it is highly likely that different children have different realities, and conjointly, these are attributed different meanings by the children experiencing them. Objectively speaking, one can identify trends and ways in which preadolescents use the internet. This includes which platforms they commonly use and what sort of experiences they have. However, the way they understand and attribute meaning to their experiences and how they represent them can be very subjective and socially constructed. Both the post-positivist and constructivist paradigms have value and both can be useful in researching the puzzle that is social reality.

Initially, when assessing how to approach the research question, constructivism was favoured both because of prior research experiences and also because of its emphasis on understanding the meaning of a phenomenon. More specifically, I value Social Constructionism (Crotty, 1998) because of the role of social interactions in the meaning-making process, specifically, as it seems to fit the social meaning-making referred to in social representations theory. In fact, as Guba and Lincoln's (2005) state "a goodly proportion of social phenomena consists of the meaning-making activities of groups and individuals around those phenomena" (p. 197). However, there is also value in post-positivism, as it can give different insights into the phenomena being researched. There seem to be common elements in the way children of similar ages use and experience the internet. Moreover, some elements

of critical theory and the participatory paradigm also fit this research as the idea is to give a voice to children and allow them the space to express their perspectives with the hope of bringing about change in the way adults conceive the children's online experiences.

A Research Strategy for Social Representations

Social representations constitute shared meanings. To be able to identify how online risks are construed by children, but also understand the common elements in these representations, a mixed methods approach is the ideal strategy. This corresponds to my belief that there is value in understanding both the trends in children's online experiences and also the meanings attributed to them as together they give rise to social representations. A mixed methods approach presents a more holistic picture of children's social representations. Silverman (2013) cautions researchers against the contention that mixing qualitative methods can reveal the 'whole picture' or an overall truth. It is often "an illusion which speedily leads to scrappy research based on under-analysed data and imprecise or theoretically indigestible research problem" (p. 138). This is applicable also for mixed methods approaches, where both quantitative and qualitative methods are used together to give the research more depth. Although it is not being assumed that a mixed methods approach will yield the whole picture, combining both approaches can provide a wider and deeper understanding of social representations.

Scholars from the social representations field have often put forward the same argument. Joffe (2003) argues that the study of social representations poses a methodological challenge, particularly because "the processes and motivations involved in social representation formation are not simple to discern empirically" (p. 66). It is important that both the individual's thoughts and their contexts are understood. This is possible through using what Joffe (2003) refers to as 'triangulation' or having multiple sources to identify social representations: "exploring ideas that reside in structures outside of the individual mind (e.g. in the mass media, scientific publications and text-books) as well as those that emerge

from surveys (closed and open-ended) and interviews (with individuals and focus groups)” (p. 66). Together, these different dimensions contain the meanings and functions of social representations. This is a compelling argument for using mixed methods in researching social representations. Apart from self-report data, other types of data can provide insights into different aspects of the representations, particularly those aspects that cannot be or are not verbalised.

Similarly, Rose et al., (1995) state that even though quantitative methods “are often useful in providing a snapshot of the attitudes and opinions of large, representative samples, used alone they cannot capture the diverse processes involved in the construction of social representations” (p. 2). This is crucial to the study of social representations, because there can be a plurality and diversity of representations, and the representations held by minorities cannot be disregarded. This provides further support to the argument that social representations are best studied through mixed methods. One such example is Thornberg’s (2010) use of mixed methods to analyse qualitative data pertaining to children’s social representations of bullying. The different representations were identified through qualitative analysis and their frequency was analysed quantitatively. A mixed methods approach seems to be befitting both my philosophical stance and the theoretical framework chosen for this study and thus a mixed methods approach was adopted.

While it is often assumed that there is a chasm between qualitative and quantitative methodologies, Creswell (2009) argues that the two are on a continuum rather than being dialectically opposed research stances. As reviewed in Chapter 2, there are countless research studies based on qualitative, quantitative or mixed methods in the field of children and new media, indicating that they can all present significant contributions to the field, validating the choice to adopt a mixed methods strategy. A mixed methods approach also fits the research problem being explored because the theoretical framework of social representations can be

advanced through using both qualitative and quantitative methods (Creswell & Plano Clark, 2011) to enhance completeness and complementarity.

One of the aims of this work is for it to serve as a way to present children's voices. Often children are considered as digital natives and this primes the assumption that they are knowledgeable about anything related to the internet. Sometimes adults might not be sufficiently aware of their needs, concerns and representations, and at times we also impose our own representations onto how they relate to the internet. As Ito et al. (2008) commented, "although youth are often considered early adopters and expert users of new technology, their views on the significance of new media practice are not always taken seriously" (p. 35). Boyd (2014) further emphasised how "teens' voices rarely shaped the public discourse surrounding their networked lives" (p. x), and for preadolescents this is even less of a reality. Taking children's voices into consideration is especially important in relation to risks. Espousing a child-centred perspective helps the understanding of the nature, origin and consequences of risks, but also how children come across them and react to them within their social context (Livingstone & Haddon, 2012). This is another reason why mixing methods is a useful strategy. Insight into the actual risk being experienced by children can be grasped through quantitative measures, but the meaning that children associate to these experiences is best grasped by means of qualitative research.

Pragmatism - A Paradigm for Mixed Methods Research

Hall (2013) presents three possibilities for the mixed methods researcher when considering the choice of a paradigm. The first solution is to not include paradigmatic matters and work without a paradigm. The second alternative would be to refuse the notion that paradigms are incompatible, and they thus can be used in a singular research project. Finally, the third option asserts that there can be a single paradigm that can hold both qualitative and quantitative research within it. A single paradigm, Hall (2013) claimed is ideal because it avoids the conundrum related to integrating paradigms.

Zachariadis and Scott (2013) presented the theoretical perspective of Critical Realism as a suitable paradigm. This is a position between positivism and constructivism which adopts a realist ontology. Reality is however stratified in three domains: the empirical, actual and real domains. The real domain encompasses all of reality, the actual domain comprises only a subset of this, while the empirical domain is a further subset of this and it includes what can be experienced or observed from the actual domain. In Critical Realism knowledge is based only on the reality that is accessible, meaning just the empirical domain. In conjunction with a position of epistemological relativism – that knowledge is the result of a social exchange – this framework can be applied to mixed methods research. This perspective can provide useful insights in addressing the chosen research question. However, it seems to place most emphasis on assuming a post-positivistic approach, with a focus on the causes that bring about the empirical events and it is not entirely suitable for researching social representations.

Another paradigm that fits mixed methods is the Pragmatic Approach which is based on the practical arguments that allow contrasting paradigms and thus methodologies to be used side-by-side (Creswell, 2009). Tashakkori and Teddlie (1998) argue that research using both qualitative and quantitative methodologies has been long ongoing, and findings stemming from both kinds of research provide significant contributions towards knowledge. Both types of research have influenced policies and been allocated funding, indicating value and usefulness in both. Moreover, there is enough common ground between the paradigms that underpin quantitative and qualitative research that they can be compatible for research in the social sciences. This common ground is the understanding that research cannot be value-free and that facts are intertwined with theories, but cannot solely determine theory. Reality is also multiple and constructed and there can be no such thing as a claim that knowledge is infallible. In pragmatism, the outlook towards combining methods from opposing paradigms is acknowledged and considered, and not dismissed as blatantly impossible. These aspects of

pragmatism match my own philosophical stances and thus I am choosing pragmatism as a foundation for this mixed methods research.

The focus in research based on a pragmatic foundation is how the mixed methods can help in fully addressing the research question. According to Morgan (2007), the best way to define a paradigm is the beliefs shared by a community of researchers about which research questions are most relevant and what methods are most appropriate to research them. Defining a research paradigm in this way, disputes the incommensurability stance. This is the argument that the positivist and the constructivist paradigms are incompatible, and that adopting one automatically implies dismissing the other. Morgan (2007) asserts that the major paradigms are created in arbitrary ways and there are areas of overlap, besides the fact that there always seems to be disparity between the philosophical and practical aspects of the paradigm. Pragmatism as a paradigm can solve these incongruences and while adopting the strengths of both positivism and constructivism, it presents the researcher with more options. Here, the focus can be on those areas in common where paradigms can overlap. Based on the works of William James, John Dewey and George Herbert Mead, social science research from a pragmatic point of view, means those “inquiries which we undertake to assess either the workability of any potential line of action or the bases of what we claim as warranted assertions” (Morgan, 2007 p. 66). This approach refutes incommensurability but holds that communication between paradigms is possible, once the focus is on shared meanings and joint actions. It is the research question rather than the philosophical assumptions that guides the research. Although philosophical assumptions are not rejected, pragmatism does not allow these assumptions to be privileged. This privileged position is assigned to the principal line of action. It is the methodology that bridges the divide between the philosophical assumptions and the actual research methods.

Abductive Reasoning, Intersubjectivity and Transferability

Pragmatism does not adhere singularly to one philosophical stance, and consequently assumptions from opposing paradigms can be used side by side. Wheeldon (2015) explains that pragmatism should be “ontologically flexible” (p. 400) and avoiding gaining a false sense of certainty through picking one method over another. Rather than debating objectivity and subjectivity, pragmatists are more concerned with the aims of the research and how to attain them, using a diversity of methods. Pragmatism presents the mixed methods researcher, with several options (Creswell, 2009). In comparison to either qualitative or quantitative methods, mixed methods research can encompass “both pre-determined and emerging methods; both open and close-ended questions, multiple forms of data drawing on all possibilities; statistical and text analysis; [and] across databases interpretation” (Creswell, 2009, p. 15).

There are three methodological issues related to philosophical positions that Morgan (2007) presents as central questions to the pursuit of social science research. The pragmatic approach provides alternatives to tackle these issues, which are distinct from what either the qualitative or quantitative approaches postulate. The first issue is the choice between being driven by data – inductive, or by theory – deductive. Morgan (2007) argues that adhering entirely to one or the other, is not feasible: “any experienced researcher knows that the actual process of moving between theory and data never operates in only one direction” (p. 58). Instead, pragmatism proposes abductive reasoning, where there can be a flow between data and theory: “first converting observations into theories and then assessing those theories through action” (p. 58). The aim would be to focus the bridges that can be built between the inductive and deductive approach rather than the differences.

Secondly, a researcher needs to address the difference that is often termed as irreconcilable between objectivity and subjectivity. Yet, Morgan (2007) once again argues that it is impossible to operate in a completely objective or subjective way. Instead, the pragmatic researcher moves “back and forth between various frames of reference” (p. 59) and

thus uses intersubjectivity to address this issue. Consistently, shared meanings and exchanges are at the core of the pragmatic approach. Intersubjectivity addresses the incommensurability dispute between the existence of a real world or of personal interpretations of it, by adopting reflexivity to help understand “which aspects of our beliefs about research are in contention and which are widely shared, and how do issues make the transition back and forth between these statuses?” (p. 60).

The final dichotomy refers to the possibility of generalising findings from research or whether findings are simply context-specific and cannot be generalizable. Through transferability, pragmatism enables knowledge attained from particular contexts to be utilised aptly in others. Knowledge is hardly ever completely unique or completely universal. While there is value in these three polarities of inductive or deductive reasoning, objectivity or subjectivity, and generalisable or context-specific findings, Morgan (2007) warns against being myopically absolutist. A position of fluidity between these three polarities as proposed by the pragmatic approach is more conducive to appreciating the intricate weaves of social reality.

In the pragmatic approach, Tashakkori and Teddlie (1998) argue that the researcher’s background is an important aspect to retain. The researcher’s choices are often entwined with personal history, social background and the cultural assumptions one holds. In turn these influence the ethical and moral issues or the axiological component of research, which is of great concern to pragmatists. Although pragmatism is knowledge in pursuit of desired ends, this does not signify that the ends justify the means. Instead, pragmatism argues that values cannot be bracketed and they shape research in the same way that philosophical standpoints do.

Speaking of abduction or an oscillation between induction and deduction is more appealing to me than choosing one or the other. Not because making such a choice is more difficult, but because both approaches can offer something useful to this kind of social science

research, and it “requires we open ourselves to conversation of all sorts, but perhaps especially to those who expand our sense of human possibility” (Rorty, 2006, as cited in Wheeldon, 2015, p. 406). Moreover, I prefer intersubjectivity over the impossible choices of being completely objective or wholly subjective and completely immersed in the field, inasmuch as I value the transferability of the findings more than having either nomothetic or idiographic conclusions.

Guba and Lincoln (2005) state that, “to argue that it is paradigms that are in contention is probably less useful than to probe where and how paradigms exhibit confluence and where and how they exhibit differences, controversies, and contradictions” (p. 192). However, regarding the issue of commensurability, the authors consider it an issue “when researchers want to pick and choose among the axioms of positivist and interpretivist models, because the axioms are contradictory and mutually exclusive” (p. 201). Pragmatism offers one solution to this incommensurability through “focusing attention on the research problem in social science research and then using pluralistic approaches to derive knowledge about the problem” (Creswell, 2009, p. 10). This is applicable to researching social representations which include processes, content, emotions, and conceptions, all of which are also dynamic. Pragmatism is also useful for researching new media which is relentlessly developing. What is useful at present might change in a short span of time and the research problem could require a different approach. Through pragmatism, researchers can apply those methods that are applicable to the research (Tashakkori & Teddlie 1998), and this is the intention for this work aimed at understanding children’s social representations of risks and safety in relation to new media.

Criticisms of the Pragmatic Approach

Pragmatism cannot be considered perfect or free of limitations. Tashakkori and Teddlie (1998) argue that despite the possibilities offered by the pragmatic approach, it sometimes lacks coherence, precise language and methodologies that are truly integrated. A

detailed explanation of its shortcomings is listed in Johnson and Onwuegbuzie (2004). One major criticism addressed towards pragmatic researchers is that researchers need to be clear about “what is meant by usefulness or workability” (p. 19) of the solution. Furthermore, Hall (2013) emphasises that pragmatism “assumes that the usefulness of any particular mixed methods design can be known in advance of it being used” (p.4), when according to him, this is only possible once the research is complete.

Pragmatism is also criticised because often quantitative and qualitative methodologies are combined in a “fragmented and inconsistent” (Denscombe, 2008, p. 290) way, yet this is not an anomaly or a flaw within the paradigm that disqualifies it. As an alternative, Denscombe (2008) suggests the “notion of communities of practice” (p. 276). Research communities aim to acquire knowledge, a process which is driven by practice and happens socially: “through their shared learning and mutual collaboration linked to a key research problem, they develop distinctive practices and languages that foster a group identity” (p. 278). Subsequently, the inconsistencies in the mixed methods approach are no longer problematic because it is the community of researchers that acknowledges the need for mixed methods research based on the flexibility allowed through pragmatism.

Sequential Mixed Methods Research Design

A Sequential Mixed Methods approach (Plano Clark & Creswell, 2008; Creswell & Plano Clark, 2011) was chosen for the purpose of understanding children’s social representations of online risk and safety. Having quantitative and qualitative phases of data collection after each other will allow the results from one method to be analysed and reflected upon to inform the subsequent phases. A mixed methods researcher needs to make four crucial judgements when designing a study, namely how the different qualitative and quantitative components or ‘strands’ will interact with the other, the priority they are given, their timing, and how they are mixed.

The first phase of quantitative data collection through a survey was followed by a second qualitative phase, consisting of focus groups and a third quantitative phase. Creswell and Plano Clark (2011) term this the Explanatory Sequential design. The data from each phase and its interpretation were the basis of the subsequent phase, and the quantitative and qualitative methods interacted with each other. Focus groups were given more priority as the need to understand children's voices and representations is the most crucial. While the survey can significantly contribute to understanding social representations, focus groups can expand this insight and understanding. The analysis of the first two phases was then used to construct the third phase of the research using a Latent Class Analysis of the survey results and another phase of quantitative data collection to corroborate these results.

Research Methods

This chapter traced how pragmatism was chosen as a paradigm for this mixed methods research and which research strategy was followed. The research methods, more specifically, the techniques and procedures that were applied to address the research question together with the data collection and data analysis methods are being discussed in brief here. They are thoroughly discussed in the subsequent chapters devoted to the different phases of the research.

Phase One

Phase one consisted of a survey with a cross-sectional design that was administered to children between 9 to 12 years in schools selected from a random sample of schools from each of the 6 demographic regions in Malta. The survey was administered by teachers during PSCD lessons after obtaining consent from the parents. Once the data was collected, it was inputted into MS Excel, and collated in IBM SPSS which was then used for the statistical analysis.

The survey aims to identify existing trends in how preadolescents use the internet, which risks they are being exposed to and how they deal with them, together with other

various issues (such as digital skills) related to online behaviour. Cross-sectional surveys are aimed at studying a particular population at a fixed point in time. This survey design was chosen because its aim is to describe and explore children's internet use and not test hypotheses or study the same population at different intervals like in longitudinal designs. This kind of survey can provide only a snapshot of the situation, but this would be appropriate as an exploratory quantitative study. Chapter 4 provides a more detailed presentation about the survey carried out.

Phase Two

The second phase of the research consisted of six focus groups carried out with children aged 9 to 12. The aim of these focus groups was to gain a deeper understanding of the children's collective thoughts about online risk. Participants were recruited through schools. Children participated in a moderated informal discussion (Silverman, 2013) about their internet use, based on the findings of the quantitative exploratory study. This was followed by an interactive discussion about the experience of these children in connection to online risk and their understanding of this risk. Participants were also asked to discuss how they dealt with risk and to explain the coping strategies they used. Some circular questions (Tomm, 1988) were also used for probing, to help understand what role the systems (such as the family) that surround children have in their social representations of risk. These questions were useful for discussing parental involvement and mediation and what they think about it.

The advantage of using focus groups as part of this research strategy is that they capitalise on group dynamics in a context where social representations are shared. With children, focus groups might require more direction than what is usually necessary for adults, but results (Porcellato et al., 2002) show that children can and do express diversity in their responses and that they do not necessarily conform because they are part of the group. An in-depth discussion of the methodological issues related to the qualitative phase of the research is presented in Chapter 5.

Phase Three

In the last phase, quantitative data from the survey was analysed using Latent Class Analysis to identify whether qualitative differences in children's responses were present. Four groups of children were identified and this was used for the last phase of the study. Children were asked to participate in a brief exercise in which these categories were presented to them in child-friendly format, and they were asked to recognise which category they identified with. More details about the third phase of the research is presented in Chapter 6.

Ethical Considerations

In mixed methods inquiries, ethical considerations remain as important as in mono-method studies. The publications of the Association of Internet Researchers (AoIR) provide guidelines for internet researchers in ethical decision-making processes (Ess & AoIR ethics working committee, 2002; Markham & Buchanan, 2012, Franzke et al., 2020). Different ethical issues become salient at different stages of the research, and require justifiable solutions that safeguard the fundamental principles of the ethical treatment of humans (Markham & Buchanan, 2012).

While there are diverse ethical frameworks within which to operate, there are no universal ethical rules. Instead researchers have to consider "doing the right thing, for the right reason, in the right way, at the right time" (Ess & AoIR ethics working committee, 2002, p. 4). Since children might be more vulnerable and susceptible to harm, my responsibility was greater. This implied a commitment to listen to their views after informing them and their guardians about the research process, and obtaining consent and assent. Another consideration was the decision about which steps to take, if any, if participants reveal information that they or someone else are in harm's way (Ólafsson, Livingstone, & Haddon, 2013). Participation in the research process should not pose any risks to the children, including being exposed to knowledge and information that is unsuitable for them.

To address the above issues, and as part of the process of my ethical reflections and the requirements of the University of Malta, a request was submitted to receive approval to conduct this study to the University Research Ethics Committee (UREC) after it was approved by the Faculty Research Ethics Committee (FREC). These approvals were received in October 2014 (Phases 1 and 2) and in June 2019 (Phase 3). Since ethical issues are an inherent part of the research process, they are elaborated upon in the chapters where the specific research phases are presented.

Biases, Positioning and Reflexivity

Biases are those influences and blind spots that can inch themselves in the different phases of the research process and have different forms. As Petre and Rugg (2011) point out, researchers need to be aware of these influences as ultimately it will be the research that suffers. Nonetheless, I believe that one cannot be completely value-free in research, and the researcher's context cannot be completely isolated from the research process. Yet, it is also an ethical responsibility to ensure that the research is carried out without deliberate biases or misinterpretations (Shrader-Frechette, 1994).

I recognise that my view of technology is a positive one: I consider myself quite competent in using it and find it beneficial in many ways. This positive attitude might make it more difficult to consider the fact that it could also have negative aspects and a darker side. I attended a local Church School where Media Studies was one of the compulsory subjects. Even though the internet was still in its germination stage, this input on media literacy received at a young age could have also influenced me and my values and eventually my views and attitude towards new media. Besides my schooling experience, my middle-class environment in which religious beliefs were strongly adhered to, might have also protected me from the darker side of human nature. When I was introduced to the internet and new media, the technological possibilities were far less and perhaps, online risks were less

prominent. I am very much aware that the scenario has now expanded and changed profusely and my understanding of the field needs to be adapted to include these developments.

Being a digital immigrant and an outsider to preadolescents' subculture, I had to learn to speak the technological language, often in a self-taught manner. Most of the participants in the current study and in the studies quoted in the previous sections have grown up with technology. This digital immigrant position might still influence how I understand the children's world. Although I have experience in conducting research with children, and feel that I can connect with them and talk to them in a way that enhances mutual understanding, certain aspects of their world might still be overlooked. However, being an outsider is also beneficial as I can reflect on and analyse children's experiences critically. This is one of the reasons why a greater emphasis is placed on the qualitative strand of the study, to learn to be more attuned to the children's world and experiences and be able to grasp an in-depth understanding of their experiences and representations.

Prior research experiences and collaborations have been very significant in my interest in the subject matter. However, they might be also contributing to biases, primarily because of my familiarity with prior work carried out in the field. To alleviate this bias, the review of relevant work in the field was widened beyond the current network of colleagues in order to acquaint myself with the contributions of other scholars and research networks. I feel I am influenced by the findings that only a relatively small percentage of children encounter risks, and that even fewer are harmed. These findings seem to match my digital optimist position. The finding that young children seem to be more prone to risk and harm led me to choose to work with preadolescents because of the assumption that they might be more vulnerable. I also became intrigued by the possibility that even though there seems to be awareness of how the media functions and of the specific, sometimes unwritten, media "rules", the media always seem to win and individuals give in to the promise of the media (Farrugia, 2009). This

made me curious about what role media play in the youngsters' context and the reason why they often give in and play along and sometimes break the "rules".

Reflexivity helped me be aware of these biases and do the utmost to allow the research question to guide the research, rather than personal inclinations and thoughts. The aim is to allow children's voices and experiences to truly emerge from the research process. To do this I need to keep the adult representations of risk, including my own, at bay and allow children's own representations of risk to be the flagship of this research endeavour.

Conclusion

A mixed methods design was identified as what would benefit this research most appropriately through establishing ontological and epistemological positions, while applying social representations theory as a theoretical framework. Pragmatism was deemed to be the most suitable paradigm. Those issues that are relevant to researching children's social representations of online risk and safety that guided the research process. A fully mixed sequential dominant status design with a focus on the qualitative strand was chosen. The quantitative strand was the first phase. The results from this survey were used to inform the subsequent phases: the qualitative study in which focus groups were held, and Latent Class Analysis which analysed the survey data further to identify qualitative differences in children's responses. This was then followed by a corroboration exercise. The analysis of the quantitative survey that follows aims to identify preadolescents' internet use and experiences. Once a picture of their internet usage, activities and risk perceptions and experiences was obtained, this set the stage for delving deeper into the social representations that preadolescents have of online risks and safety.

CHAPTER 4

PHASE 1 – SURVEY

MAPPING HOW PREADOLESCENTS PERCEIVE AND EXPERIENCE ONLINE

RISK

Chapter 4. Phase 1 – Survey: Mapping how Preadolescents Perceive and Experience

Online Risk

The quantitative survey which is the focus of the current chapter is aimed at presenting exploratory results about internet use, actual risk experiences and risk perceptions of Maltese children aged 9 to 12 years.

The Data Collection Tool

I was part of a team commissioned by the MCA to carry out a survey with Maltese children aged 8 to 16 (Lauri et al., 2015). I was in charge of coordinating the data collection, data inputting and analysing the results. Permission was obtained to use the survey data for children between 9 and 12 years. The questionnaire was built on the tools used for the surveys MCA held in 2010 and 2012 (Malta Communications Authority, 2010; 2012a). The questionnaire also contained questions from the EU Kids Online survey held in 2010 (Livingstone et al., 2011a). These were made available by the MCA and by EU Kids Online through the Attributive Non-Commercial Creative Commons License. The final version of the questionnaire is available in Appendix 2.

Section A of the questionnaire contains 4 questions (Q. 1 – Q. 4) about the child's demographic data – gender, age, school and school year. The questions in Section B (Q. 5 – Q. 6) ask about internet access, to identify the locations where the child uses the internet and the devices available to the child to do so. This is followed by 3 questions (Q. 8 – Q. 10) in Section C which are related to the frequency of internet use. These are then followed by a question (Q. 11) about activities carried out online and another about the platforms that the children have an account with (Q. 12). The last two questions in this section investigate what

information children share online (Q. 13) and the activities carried out in the week prior to the survey (Q. 14).

Section D ask children about their perceptions of risk (Q. 15 – Q. 17) while Section E (Q. 18 – Q. 20) investigates a list of 8 risks and whether the child had any actual risk experiences. The coping strategies used and how the child felt about the risk were also investigated. Section F contains 3 questions about digital skills and online safety (Q. 21 – Q. 23) followed by Section I containing brand recognition questions for the BeSmartOnline! Project. This was done to assess the effectiveness of the local internet safety awareness programme.

To make the questionnaire understandable by children, and to identify their actual experiences rather than the commonly used terms to describe online risk experiences, the term risk was not used in order not to influence their understanding of the concept of risk. Instead, an operationalised version of these risks was presented. For instance, ‘unpleasant or inappropriate comments’ was used instead of cyberbullying. This means that when answering, the children themselves would need to define that something was inappropriate or unpleasant to them rather than expressing whether they were bullied online or not. If they experienced something unpleasant online, the way the risks were operationalised would capture that experience without actually mentioning the specific term. This operationalisation of risks was also essential in order not to mention risks directly (e.g. pornography or sexting), to avoid creating curiosity in children who had not had such experiences.

Data Collection & Ethical Considerations

Cluster Sampling was used to select the participants. For surveying children, this was appropriate since most children should be in school, thus providing “naturally” occurring clusters, and the population of children would be difficult to identify otherwise (Creswell, 2009). The schools were the identified cluster. The population included all Primary and Secondary Maltese schools from all State, Church and Independent Schools. All schools were

classified according to the demographic region of the Maltese islands in which they belonged, namely: Northern Harbour, Southern Harbour, South Eastern, Northern, Western, and Gozo and Comino. Following that, a random number generator was used to identify 2 primary and 2 secondary schools from each of the six regions to participate in the study. In all, 23 schools were selected and took part in the study. The data for children aged 9 to 12 used in this study was extracted from the larger dataset for children aged 8 to 16 who participated in the survey.

Permission to conduct the research was requested from the Directorate for Quality and Standards in Education for State Schools, the Maltese Curia for Church Schools and the respective Heads of School for Independent Schools. Once these permissions were obtained, the research proposal related to this study was presented to the University Research Ethics Committee (UREC) after being approved by Faculty Research Ethics Committee (FREC). The proposal outlined the ethical principles and processes that I followed throughout the research process. Parents or legal guardians were provided with an information sheet and a consent form to sign (Appendix 3) to approve that they allow their child to participate in the study. Those children whose parents consented to their participation in the study were asked to confirm their assent to take part in the research (Appendix 4). These forms outlined anonymity, confidentiality, the right to refuse to answer and the right to withdraw from the study at any time without there being any consequences.

Following the FREC and UREC approval received in October 2014 (SWB 017/2014), the schools were contacted. PSCD teachers in State Schools were contacted via the Directorate for Education Services and those in Church Schools through the Secretariat for Catholic Education. The Heads of Independent Schools were contacted directly. Meetings were then organised with the respective PSCD teachers and School Management Teams (SMT). During the meetings, the Maltese and English version of the children's questionnaires were presented and the teachers were given instructions how to carry out the data collection. Each school was to select a convenience sample of 3 or 4 classes within the age range of the

study. In class the PSCD teachers went through the questions one by one while the children answered the questionnaire. Teachers were asked to keep any necessary explanations neutral and unbiased, particularly when children asked for clarifications. It was decided that the questionnaires were to be administered during the PSCD lessons, so that the PSCD teacher could monitor children in the case that any significant issues that warranted further discussion emerged during the data collection. At the end of the questionnaire, children were also debriefed and given my contact information and the number of the local helpline that includes the internet helpline and hotline in the case they wanted to discuss an issue or had any questions.

The data collection took place between November 2014 and January 2015. In total 2000 questionnaires were distributed to children aged 8-16. The full survey had a response rate of 78% (1560), out of which 1097 were children between the ages of 9 and 12. Incomplete questionnaires were discarded, but considering that the respondents were children, questionnaires with occasionally missing data were still considered as valid. The data was inputted in MS Excel to be then analysed using IBM SPSS. Table 3 below displays the age and gender distribution of children in the 9 to 12 age group which will be the data set for the current work.

Table 3

Distribution of Participants' Ages and Gender

Child's Age	Child's Gender		Total
	Boys	Girls	
9-10 yrs	271 24.7%	297 27.1%	568 51.8%
11-12 yrs	236 21.5%	293 26.7%	529 48.2%
Total	507 46.2%	590 53.8%	1097 100.0%

12-year-old children in the sample are slightly underrepresented in comparison to the 11-year-olds. This is a result of the cohort chosen since in the same class some children would be turning 12 in the following year. The 9 to 10-year-olds were considered as one group and the 11 to 12-year-olds as another group because of their similar developmental stages. The percentage of the two groups were almost 50% each (Table 3). There are also slightly more females (53.8%) than males (46.2%) in the sample.

Validity and Reliability

The questions used were replicated from previous surveys. The questions had already been piloted with children when these surveys were carried out to ascertain validity. Since the questionnaire is not a standardised test, reliability scores could not be computed. To ascertain content validity, the questions chosen were phrased simply so that the younger children could understand them. The questions asking about risk were phrased as neutrally as possible to circumvent children feeling judged or not wanting to reply because of social desirability (Ólafsson et al., 2013; Brysbaert, 2011).

The tool which was originally prepared in English was then translated into Maltese to make it accessible to all students irrespective of their language preference. Discrepancies in the translation could create possible biases. In order to avoid this as much as possible and to ensure validity, the translations were checked by two different professionals – an educator to ensure that the Maltese translation was child-friendly, and an expert in the Maltese language to ensure that the translation into Maltese accurately reflects the English version. The Maltese version was then back-translated into English removing any discrepancies.

Data Analysis

The following sections present the findings from the survey. Findings related to children's internet access and use are presented first so that findings related to risk can be understood within the context of the role that the internet has in their daily life.

Children's Internet Access is Widespread and Frequent

Children have widespread internet access, and they can access the internet from several places (Table 4). The home is where internet access is the highest for all the ages (96.4%). Furthermore, almost half (48.1%) of the children surveyed claimed they could access the internet from their own room. Only one fourth of the children seem to have internet access from school. This contrasts European findings, as the Net Children Go Mobile (Mascheroni & Ólafsson, 2014) study reports that 43% and 50% of children 9 to 10 and 11 to 12 respectively access the internet from school.

Table 4

Children's Internet Access

	Child's Age				Total
	9	10	11	12	
	%	%	%	%	%
Internet access from home	94.7	97.4	96.1	97.9	96.4
Internet access from own room	47.5	47.2	47.9	51.8	48.1
Internet access from school	24.0	28.9	20.9	23.4	24.2
Internet access from a friend's house	19.0	22.6	22.4	18.4	21.1
Internet access from a relative's house	38.8	43.9	37.6	36.2	39.5
Internet access from public places	9.1	16.7	17.0	24.1	16.0
Internet access from shops	17.9	26.6	24.0	20.6	22.8
Internet access from another place	1.9	4.9	2.6	2.8	3.1
Did not reply	1.1	0.3	0.0	0.0	0.4

Children have access to the internet from other places which include friends' and relatives' houses and public places. Even though it cannot be assumed that when children use the internet at home they are being monitored and their access is mediated, monitoring and mediation might be less available at their friends' or relatives' houses. When they access the internet from such places, there could also be different rules from the ones they have at home. Children would be able to explore the internet's opportunities, but they might also engage in

activities that might be potentially risky, such as watching inappropriate content with friends. This suggests that apart from mediation, children also need to have skills and values that enable them to manage themselves when mediation is not available.

Devices Used to Access the Internet. Children were asked about which devices they could use to access the internet. Participants seem to use laptops and tablets slightly more than computers, as Table 5 below indicates. This could be evidence of the increasing shift towards the use of portable devices. There is also a substantial increase in the use of mobile phones in the older cohort (11-12), which reflects that as children grow older, having a smartphone with internet access increases in frequency. This mirrors the trend found in the Net Children Go Mobile study which identified the shift towards “a post-desktop media ecology” (Mascheroni & Ólafsson, 2014, p. 13).

Table 5

Devices Used by Children

	Child's Age				Total
	9	10	11	12	
	%	%	%	%	%
Uses computer	58.9	63.0	63.7	51.8	60.8
Uses laptop	59.7	63.3	65.2	66.7	63.5
Uses mobile	49.4	48.9	64.4	67.4	56.9
Uses tablet	64.6	68.9	62.6	56.7	64.1
Uses game consoles	19.4	25.2	23.2	26.2	23.2
Uses another device	7.2	3.9	2.1	2.8	3.9
Did not reply	1.1	0.0	0.8	0.0	0.5

With internet access becoming increasingly mobile, internet access can be more private as indicated by the 48.1% who access the internet from their room. When Chi-Square tests were carried out (Table 6), in relation to access from their room and the use of portable devices (mobile phones, tablets and also laptops) all the associations were significant, indicating that the use of portable devices and privatised access co-occur. Internet access from

children's own room was also associated to the use of game consoles, which seems to be happening mostly from a child's own room. In the scenario of a progressively more mobile and privatised internet use, young children can have an almost unlimited access to applications and content online that is not necessarily appropriate for their age, and monitoring what they do online can be increasingly difficult.

Table 6

Chi-Square for Internet Access from Own Room and Use of Portable Devices

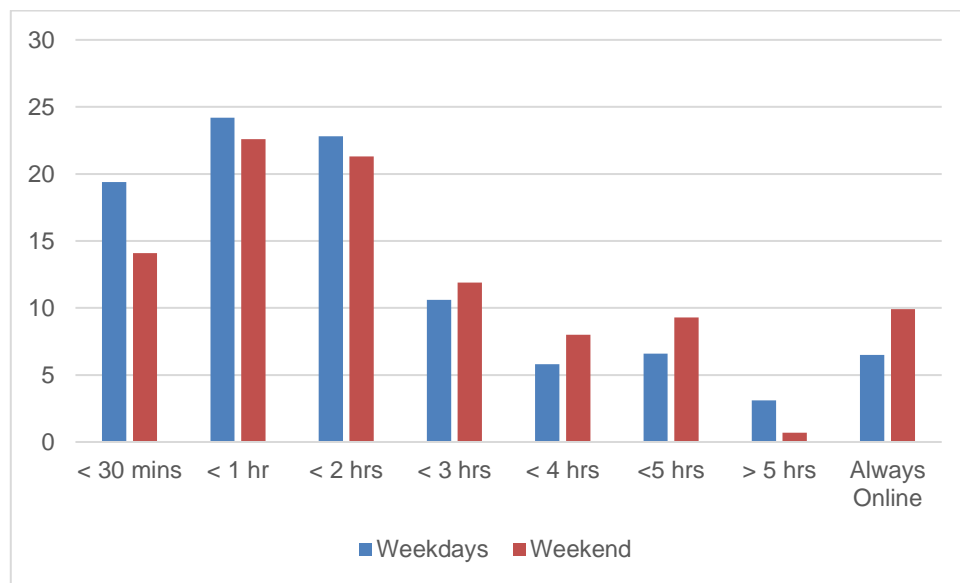
Pearson Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Internet access from own room * Uses laptop	38.66	1	0.000
Internet access from own room * Uses mobile	51.23	1	0.000
Internet access from own room * Uses tablet	26.20	1	0.000
Internet access from own room * Uses Game Console	26.92	1	0.000

Distinctly from laptops which are portable, smartphones and tablets are truly mobile in the sense that they can be carried around and used from anywhere. They usually have a high-speed connectivity and the possibility to access different platforms such as media platforms, messaging platforms and SNS. While none of the threats presented by the internet are new ones, the portability of smartphones and tablets may pose a bigger threat to children. For instance, while bullying has been around before the advent of new media and mobile technology, the bullying situation is no longer confined to the school, classroom or playground. Instead, a child carrying a mobile phone or tablet could be carrying their bully or stalker around in their pockets, and the safe haven of the home might no longer be enough to shelter a child from being bullied. This is also because mobile technology could make it more difficult for parents to oversee their children's device use.

Frequency of Internet Use. The majority of children spend between 30 minutes and 2 hours online both during weekdays and also during weekends (Figure 2). When comparing the time spent online during weekdays and during weekends, children seem to spend longer hours online during the weekend.

Figure 2

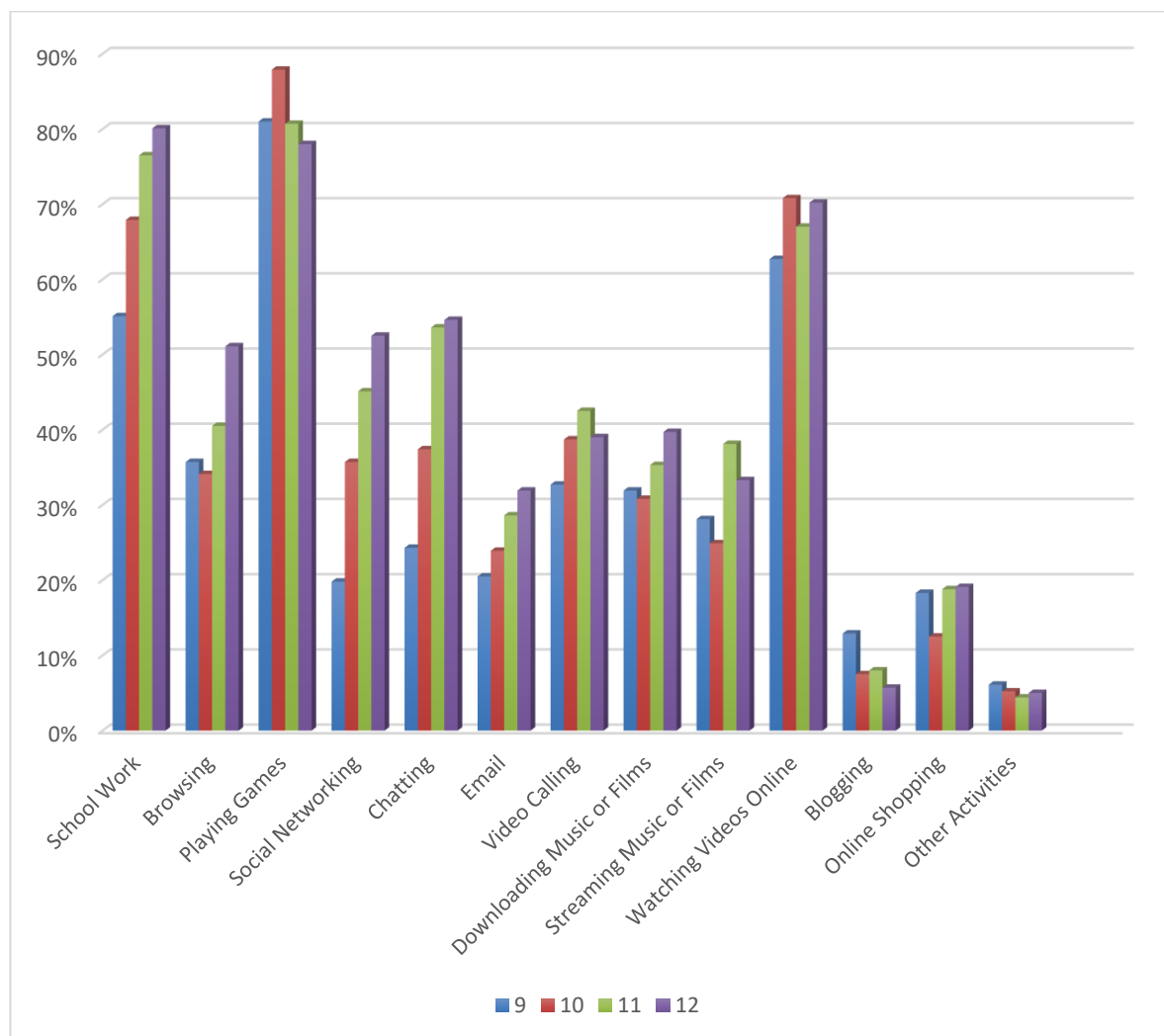
Time spent online



While during the days of the week, more children are online between 30 minutes and 2 hours, the number of children who spend a similar amount of time online during weekends decreases. The percentages of children who spend three hours or more online is higher during the weekends. This is an indication that children seem to be spending more time online during the weekend. Notably, 6.5% of children claim that they are always online during the week and 9.9% say they do so during the weekend. The significance of this finding warrants further exploration, to understand whether this refers to the possibility of being online at any time of the day or it implies excessive internet use. For some of these children it might be the latter, when considering that 13% of adolescents in the study by Tsitsika et al. (2012) used the internet excessively, though not necessarily in a maladaptive way.

When analysing further to identify whether children spend a similar amount of time online during weekdays and weekends, the Chi-Square test shows an association between the two ($\chi^2 = 1102.77$, $df=64$, $p \leq 0.000$). The time spent online during the days of the week is associated to the time spent online during weekends, which indicates that children tend to spend a similar amount of time online throughout the week.

Activities Carried Out Online. Playing games (82.4%) is the most common activity for children online, followed by school work (69.5%) and watching videos (67.5%). Although there are some variations across the different ages, this seems to be a consistent trend. The prevalence of these content-based activities corresponds to the findings for European children (Pruulmann-Vengerfeldt & Runnel, 2012). What is clearly evident from Figure 3 below is that social networking activities seem to increase steadily as children grow older, ranging from 19.8% in 9-year-old children to 52.5% in the 12-year-olds. Chatting also seems to follow this pattern, and this might be due to the built-in features of some SNS (such as Facebook and Instagram) that allow for private messaging. The findings also show that content-creation activities, such as blogging, considered as a higher rung within the ladder of opportunities (Livingstone & Helsper, 2007), are less popular amongst Maltese children.

Figure 3*Children's Online Activities*

When comparing the results of Maltese children to those of their European peers, Table 7 indicates that the findings are comparable for most online activities, including playing games, social networking and playing videos online. However, it seems that Maltese children seem to be using email considerably less, suggesting that the role of email as part of their communicative repertoire might be becoming less important. To understand whether there are significant gender differences in playing games, a Chi-Square test was performed. Significant gender differences were found, showing that males play more games than females ($\chi^2 = 21.566, df=1, p \leq 0.000$).

Table 7*Comparison of Online Activities - Maltese and European Children*

	Maltese Children 9-12		European Children 9-12 (Livingstone et al., 2011a)	
	Boys	Girls	Boys	Girls
School work	62	76	79	82
Playing games	88	78	86	84
Social networking	38	37	40	42
Chatting/Internet messaging	42	43	43	47
Email	25	26	42	47
Downloading music or films	39	30	27	26
Watching videos online	69	66	66	64
Blogging	9	8	4	6

Accounts Children Have.

Table 8 shows that children have accounts with different sites, with the most popular being Google (54%) and Facebook (46.7%). There is a steady increase with age in the number of children who have accounts with the following SNS: Facebook, Twitter, Tumblr, Snapchat and Instagram. This is an indication that the older the children are, the greater the percentage who use SNS. This happens despite the fact that for all these accounts, children should be at least 13 years to be able to sign up, implying that they possibly sign up by giving a fake birthdate. In fact, most of the sites or platforms children were asked about require them to be at least 13 years of age before they can sign up for an account. For gaming platforms, such as PSN, XBOX and Club Nintendo, parents' permission is required for children between 13-18, and for younger children, the option is to have a family account.

Table 8*Accounts Children Have*

	Child's Age				Total
	9	10	11	12	
	%	%	%	%	%
Google	49.0	51.5	55.9	63.1	54.0
Facebook	21.3	43.9	57.2	70.9	46.7
Skype	33.1	40.0	49.5	40.4	41.8
Club Penguin	26.2	27.2	26.5	24.8	26.4
Mini Clip	19.4	25.2	25.0	29.8	24.3
PSN	15.2	20.7	20.1	22.0	19.3
Ebay	14.4	17.4	16.8	19.1	16.7
Snapchat	5.7	11.8	16.5	19.9	13.0
Instagram	8.0	9.8	14.9	19.1	12.4
iTunes	13.3	10.5	11.9	12.8	11.9
MSN / XBOX	9.1	11.1	10.1	14.2	10.7
Twitter	6.5	9.8	11.3	16.3	10.4
Club Nintendo	9.9	8.2	10.3	5.7	9.0
MSN	3.8	5.2	8.2	9.9	6.6
Tumblr	2.7	3.0	5.2	9.2	4.5
Ask.fm	3.0	3.9	3.6	9.2	4.3
Pinterest	3.0	2.6	3.6	3.5	3.2
LinkedIn	2.3	1.3	0.5	0.7	1.2
Other	30.8	21.3	17.3	17.7	21.7
Did not reply	17.5	9.8	7.2	5.7	10.2

Google accounts seem to be more popular with Maltese children than iTunes accounts and this could be related to which mobile phone these children have. Google accounts are usually associated to Android phones, and these are possibly more popular than Apple phones (iTunes) because they are cheaper. However, it could also be that Google accounts are more popular because a Google account provides access to several services. eBay requires users to be over 18 years to have an account. However, 16.7% of children 9 to 12 years said that they have an account despite their young age. This might not necessarily mean that they themselves have an eBay account, but they could be shopping online with adults.

The European project 'Net Children Go Mobile' identified Facebook as the main social networking site children use (Livingstone, Mascheroni et al., 2014) with the platform

becoming increasingly popular with teenagers. The survey findings mirror this trend. They also indicate that the percentage of Maltese children 9 to 10 and 11 to 12 who have a Facebook account is slightly higher than that of European children, as can be seen in Table 9 below.

Table 9

Comparison of Children who have Facebook Accounts

Child's Age	EU Kids Online 2010	Net Children Go Mobile 2014	Current Study 2015
	%	%	%
9-10 yrs	15.0	22.0	33.5
11-12 yrs	33.0	54.0	60.9

Information Available Online about the Child. Table 10 indicates the type of information available online about the participants. Out of the whole sample, 65.7% give their real name online and 46.9% say there are photos of themselves available online. These figures increase with age, and this points to the important role that visual images have in the online world. 36.7% of children admitted that they have an invented date of birth associated to them online, probably in order to have accounts with SNS. This percentage increases to 43% and 53.2% in 11 and 12-year olds respectively, which is also consistent with the increased use of SNS as children grow older. The Chi-Square test confirms the association between having a Facebook account and having an invented date of birth online ($\chi^2 = 197.36$, $df=1$, $p \leq 0.000$).

Few children claimed that their mobile number, location, home address and home number were available online. It is positive that most children do not share such information. However, it is also important to understand why some children are sharing this information and whether they are aware of the issues that this might bring, considering that the percentage of 9-year-old children who share their home address and number is higher.

Table 10*Child's Information Available Online*

	Child's Age				Total
	9	10	11	12	
	%	%	%	%	%
True name	52.1	64.9	72.7	73.8	65.7
Photos of you	33.1	43.9	54.6	58.2	46.9
Invented date of birth	17.9	37.4	43.0	53.2	36.7
Real date of birth	19.8	24.3	20.4	18.4	21.1
Fake name	23.2	25.6	14.7	24.1	21.0
Email address	17.1	18.7	17.3	14.9	17.3
School name	9.5	11.8	15.2	22.7	13.9
Mobile number	8.7	8.2	11.6	8.5	9.6
Location	4.9	7.2	9.8	7.1	7.6
Home address	10.3	7.2	7.2	3.5	7.5
Home number	4.6	4.9	4.6	1.4	4.3
Other	8.0	4.3	3.1	2.1	4.5
Did not reply	24.3	10.8	11.3	6.4	13.7

Table 10 shows that as children grow older, there seems to be a shift in the information they share online. Older children share their true name, photos, an invented date of birth and their school name more than the younger ones. These can be associated to the use of SNS and the possibility of connecting with peers. In contrast, 12-year-old children shared less personal information such as their home address or home number in comparison to 9-year-old children. This could be attributed to an increased awareness of online safety as children grow older.

There were 13.7% of children who did not reply to this question, ranging from 6.4% for 12-year-old children and increasing up to a fourth of the children aged 9. This difference in age groups could indicate that there are some children who do not share such information online, but this number decreases as children grow older. Another possible explanation for this could be that children were aware they should not share such information online and they were uncomfortable disclosing that they had done so.

Risk Perceptions

Children were given a set of statements to assess their perceptions of online risks. As Table 11 indicates, children consider privacy settings to be important, and this seems to be more so for the older children rather than the younger ones. The reason why the younger children give them less importance might be because privacy settings are directly related to SNS, and less children in the younger age group use SNS.

Table 11

Children's Perceptions of Risks Online

	Child's Age			
	9-10	11-12	Total	13-14
Total Respondents	568	529	1097	286
	%	%	%	%
It is important to use privacy settings on Social Networking Sites	53.5	74.1	63.4	87.1
The internet is a safe place for people my age	18.8	23.1	20.9	27.3
It is safe to meet new people over the internet	7.4	12.5	9.8	31.1
There are no risks when posting photos of oneself on a social network	7.7	10.8	9.2	17.5
I would be willing to meet someone I made friends with over the internet	9.2	7.6	8.4	19.2
It is fine to post things publicly on Social Networking Sites	7.7	7.4	7.6	19.9
I am not worried about the personal information there is about me on the internet for others to see	9.2	10.8	9.9	21.0
Others may post photos of me without my permission	4.4	7.4	5.8	9.4
It is OK to call people names or write rude remarks on them online	1.8	0.6	1.2	5.6
Did not reply	25.9	14.7	20.5	3.1

Only 20.9% of the children consider the internet to be a safe place for children their age, which indicates a rather negative perception of the internet. This negative perception is corroborated by the children's responses to the rest of the statements. With regards to meeting new people, the percentage of those aged 11-12 who say that it is safe to meet new people

online (12.5%) is higher than that for younger children (7.4%). This age difference is also evident in the statement related to others posting photos of them without permission. These two findings might be related to older children's developmental needs related to identity and to establishing intimate relationships as other studies such as Farrugia et al., (2019) show.

One-fifth of the participants (20.5%) did not reply to this question. The highest percentage of children who did not reply to this question were the 9-year-old children, which might indicate that the participants did not understand these statements, possibly being a limitation of the survey.

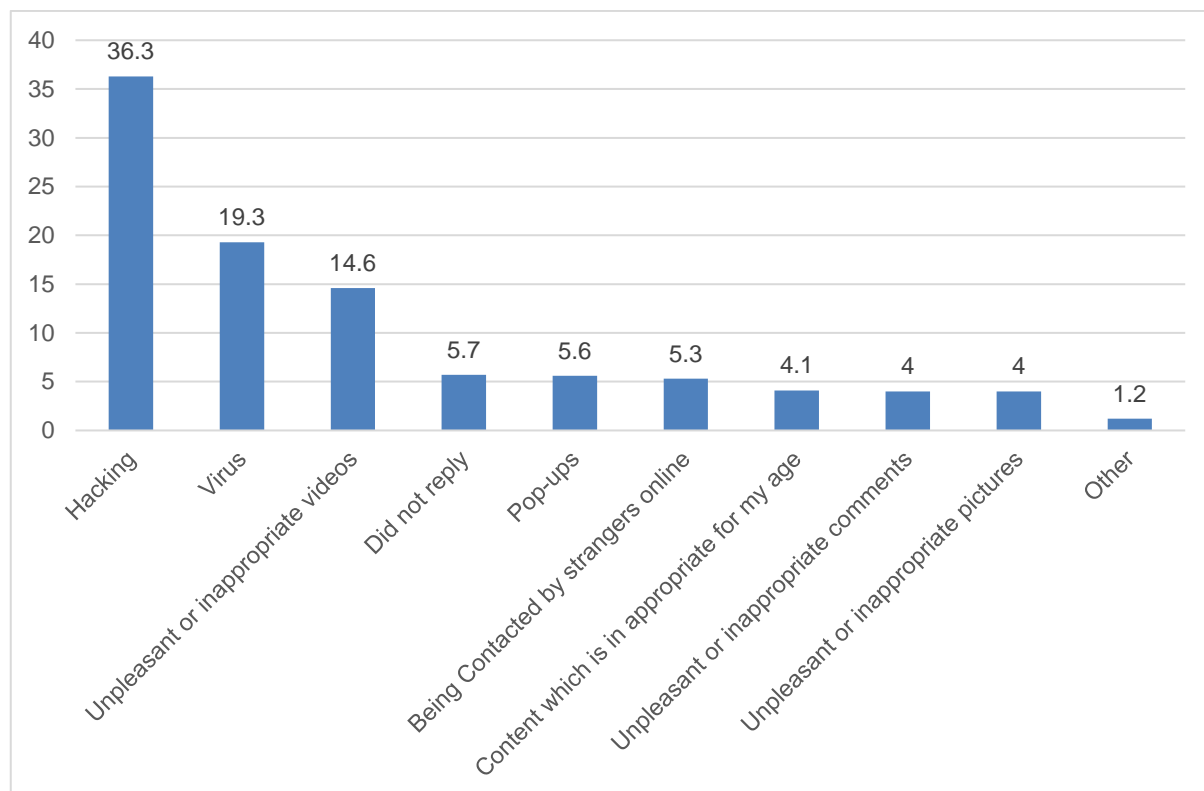
Table 11 also presents the data for children aged 13-14 who were asked the same question in the survey commissioned by the MCA in order to compare the results. The importance of privacy settings continues to increase with age and this is probably a reflection of the increased use of SNS once children reach the age of 13. The perception that the internet is a safe place is higher in the older cohort, probably because it becomes an integral part of their daily lives and is often taken for granted. They might also become more adept at handling any issues they encounter online. Moreover, the increase in the percentage of older children is more pronounced for those who agreed that meeting new people over the internet is safe. Older children are also more willing to meet friends they made over the internet. These findings cannot be interpreted solely as being an increased exposure to risk. Meeting new people online and face to face can also be considered as a risky opportunity. While it could expose them to online predators, it can also widen the children's social circles.

When asked about what they consider the most dangerous thing that can happen to them online, children consider technical risks (hacking and viruses) as the most dangerous, despite the fact that they do not present a personal risk to the children (Figure 4). Hacking is consistently mentioned across the ages as being the most dangerous (36.3%) followed by viruses (19.3%). The third item that children considered as the most dangerous thing online was unpleasant and inappropriate videos. Considering the high percentage (67.5%) of

children who use the internet to watch videos (Figure 3) this is not surprising. What is more striking is that bullying and stranger danger which could pose a greater personal risk to children are perceived as less dangerous.

Figure 4

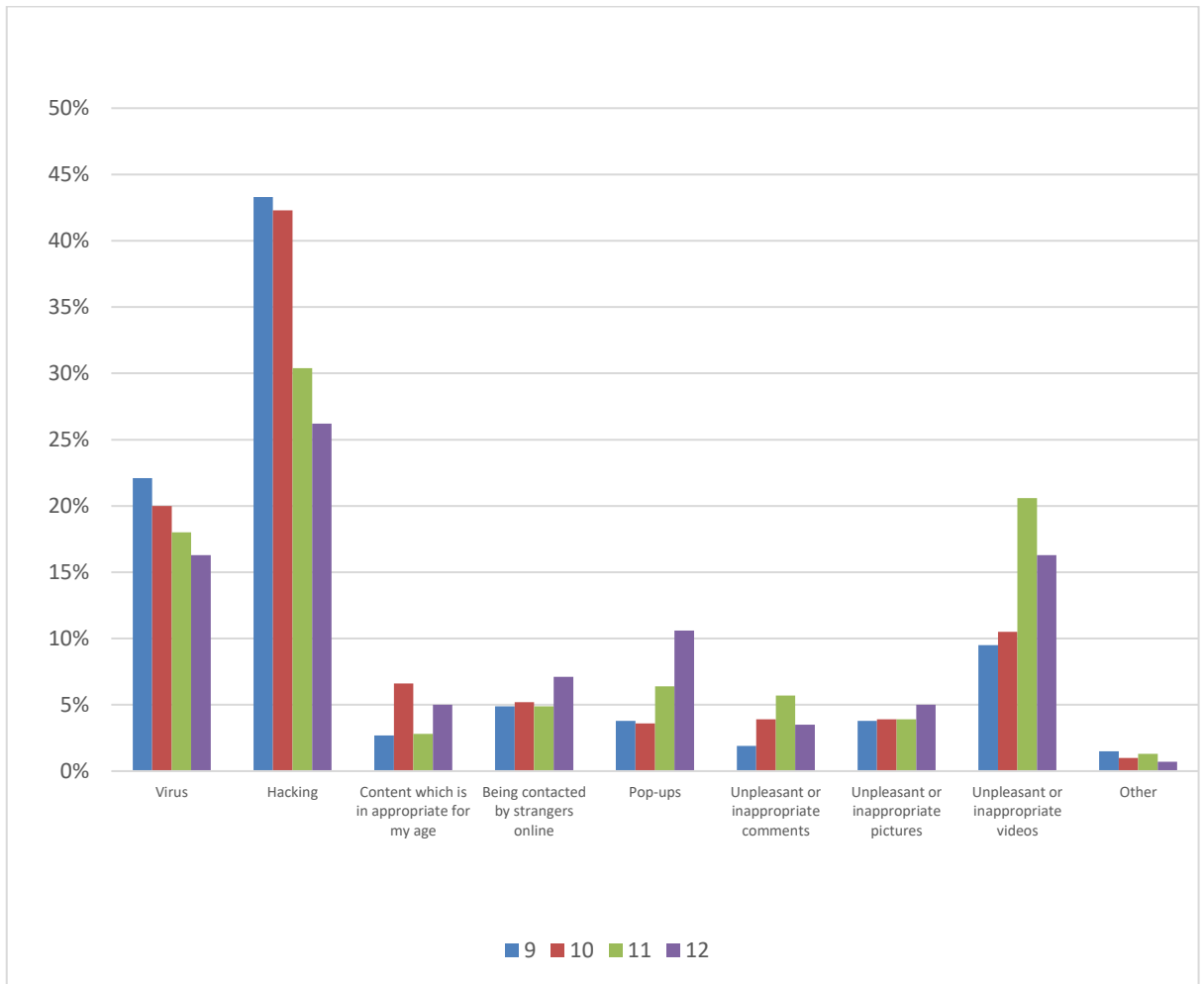
Children's Perception of the most Dangerous Online Risk



The perception of viruses as the most dangerous thing online decreases with age (Figure 5). This is possibly because it is seen as less of a threat and something that can be managed with proper anti-virus software or that can be solved through technical support. Contrastingly, the perception of being contacted by strangers as the most dangerous thing online increases slightly with age, indicating that there might be a greater awareness of this danger in the older children.

Figure 5

Perception of the most Dangerous Online Risk by age



As Figure 5 indicates, the percentage of children who perceive pop-ups as being the most dangerous thing online increases slightly with age. This could be attributed to an increased media literacy in the older children, who might understand better that clicking on a pop-up could have implications or consequences to their safety online (e.g. clicking on a pop-up might increase their vulnerability to hacking, getting a virus or being re-directed to pornographic sites).

Risk Experiences

Table 12 presents children's actual risk experiences. Children were asked to indicate which out of a list of possible risky experiences had happened to them.

Table 12*Risk Experiences According to Age*

	Child's Age				Total %
	9 %	10 %	11 %	12 %	
Virus	46.4	44.3	39.5	41.8	42.8
Hacking	14.4	15.4	11.4	16.3	13.9
Content which is inappropriate for my age	13.3	8.9	11.6	13.5	11.5
Being contacted by strangers	14.4	16.1	15.8	18.4	15.9
Pop-ups	39.2	40.0	43.4	48.9	42.2
Unpleasant or inappropriate comments	17.1	12.1	15.8	16.3	15.1
Unpleasant or inappropriate pictures	20.9	12.8	16.5	17.0	16.6
Unpleasant or inappropriate videos	20.5	15.4	16.3	14.9	16.9
Did not reply	26.2	23.9	27.9	22.7	25.7

Base: All Respondents

When analysing the risk experiences across the ages, there were no significant differences. However, there is a slight increase in the percentage of the younger children who experienced inappropriate comments, pictures or videos. This finding may mean that older children can become desensitised and would not consider such content as inappropriate as they grow older. As Table 12 shows, 25.7% of children did not reply to this question. This percentage is consistent across the ages, which might mean that in actual fact, around one-fourth of children did not encounter any of these risk experiences.

Table 13 shows the aftermath of the risk experiences, specifically how the children coped with that experience and how upset they felt about it.

Table 13*Children's Experiences of Risk, Coping & Harm*

RISK EXPERIENCE		COPING					HARM				
Which of these happened to you on the internet?		Just hoped it would go away	Spoke to someone about it	Felt Guilty or Ashamed	Phoned 179	I did nothing	Tried to solve it on my own	Very Upset	Upset	Not at all upset	Did not reply
	%	%	%	%	%	%	%	%	%	%	%
Viruses	42.8	10.8	70.1	6.1	3.8	9.9	16.2	20.0	35.6	34.3	10.0
Hacking	13.9	17.4	56.5	7.6	9.8	17.4	26.1	28.9	30.3	21.1	19.7
Age-inappropriate Content	11.5	14.3	51.4	10.5	6.7	18.1	20.0	24.6	26.2	32.5	16.7
Contacted by strangers	15.9	8.8	53.1	3.8	3.1	27.5	16.9	17.2	21.3	43.7	17.8
Pop-ups	42.2	17.5	35.9	1.7	1.2	22.6	33.3	7.1	19.5	58.4	14.9
Unpleasant or inappropriate comments	15.1	15.9	49.7	9.3	5.3	15.2	17.2	22.9	29.5	30.7	16.9
Unpleasant or inappropriate pictures	16.6	16.0	52.5	10.5	4.3	17.9	13.0	23.1	31.3	29.7	15.9
Unpleasant or inappropriate videos	16.9	13.8	45.5	16.8	6.6	16.8	17.4	33.5	22.2	31.9	12.4
Did not reply	25.7	-	-	-	-	-	-	-	-	-	-

Base for each column: The participants who ticked 'YES' for that particular risk experience

Children were given a range of coping responses to choose from. These options included the fatalistic approach ‘Just hoped it would go away’, the proactive approach ‘Tried to solve it on my own’ and the self-accusatory approach ‘Felt guilty or ashamed’. Another coping option was to ‘Speak to someone about it’. This was the most common option for European children (Livingstone et al., 2011a). Similarly, most of Maltese participants also reported speaking to someone as the coping mechanism they used most, when encountering bothersome experiences. This is a positive finding because it shows children seek support from those around them when they encounter difficulties online.

The Maltese internet helpline is part of the services provided by Supportline 179 and the survey asked children to indicate whether they had made use of this service to cope with those things that bothered them online. This was the least preferred coping method, possibly because children find it difficult to phone to seek help. It is also possible that children do not have enough awareness that this helpline is available to support them with any internet experiences they have. This might be because Supportline 179 is a generic helpline, and often this helpline is associated with seeking help in relation to abuse and violence and there might not be sufficient awareness that this is the internet helpline as well (Dinh et al., 2016). Whilst admittedly it is very difficult to measure harmful effects, children were also asked to indicate how upset they were, to try and understand the seriousness of the effect of the risk.

Technical risks, namely viruses (42.8%) and pop-ups (42.2%) were the risks most experienced by the children. 70% of children who had faced viruses said that they spoke to someone about them, indicating that they could not solve it on their own and had to seek help elsewhere. Contrastingly, there was the highest percentage of children who tried to solve things on their own when they came across pop-ups, and also the lowest percentage of children who sought help from others. It is probable that pop-ups were considered the least upsetting experience because children could solve the issue on their own. Alternatively, as suggested by Livingstone et al. (2011a), children might not seek the help of others when they

come across pop-ups because they are shy, especially if the pop-ups are related to inappropriate content such as pornographic sites.

Hacking, while also being a technical risk and considered by the children as the most dangerous thing online (Figure 4), was actually one of the least experienced by them (13.9%). This could suggest that risk perceptions are influenced by the experiences of peers (Mascheroni et al., 2014). Alternatively, the media which highlight hacking as a major risk online, can also be shaping children's perceptions.

The findings related to how children deal with hacking show mixed reactions. This is possibly because there are different types of hacking, so in some cases, children could solve it on their own (26.1%) but in most cases, they had to request the help of others (56.5%). Children do not say they felt 'guilty or ashamed' with respect to pop-ups but the percentage of children who reported feeling this for viruses and hacking was higher. This might be because pop-ups often occur spontaneously while children are doing something else, such as when playing games. On the other hand, viruses and hacking could be the result of the child's unorthodox action such as clicking on a pop-up, a link, or replying to a scam message. When they were hacked, younger children were more likely to speak to someone about it.

Children's have less experiences of non-technical risks in comparison to technical ones, hacking excluded. The percentage of children who have experienced age-inappropriate content is 11.5%. When children refer to inappropriate content, they often mean sexual images or images involving nudity. The percentage of European children who had seen sexual images online was less (Livingstone et al., 2011a). This higher percentage for Maltese children might be due to the wording of the question. Children were asked if they had experienced any form of age inappropriate content, not just images or sexual content. However, in Malta, the prevalence of the use of pornography is rather high among those aged between 18-40 (Falzon, 2018). If children use devices which other family members use to

access porn sites, they might be more likely to receive such pop-ups, especially if there are cookies saved on the device and the browsing history has not been cleared.

16% of children claimed that they had been contacted by strangers. This is comparable to percentage of European children who made contact with someone they were not acquainted with (Livingstone et al., 2011a). In the Maltese findings, only 3.8% claimed that they felt guilty or ashamed of this, possibly because they felt that it was not their fault or it was something which they themselves welcomed. Although 51.4% of the children spoke to someone about it, in comparison to the other risks, this risk had the highest percentage (27.5%) of children who did nothing about it. This could possibly indicate that they might have been looking for such contact. While strangers could be adults with malicious intentions, they could also be children their own age, seeking to make friends. In fact, 43.7% were not upset by this experience and this could be a reflection of this interpretation.

The survey asked about experiencing unpleasant or inappropriate comments to understand if the children had experiences of online bullying, and 15.1% of the participants claimed they had such an experience. This is higher than the percentage of European children who claimed they had been treated in a 'hurtful or nasty' way online (Livingstone et al., 2011a). Often these experiences happened to children while using SNS or internet messaging. The higher percentage for Maltese children could imply that some of these children were bystanders of the unpleasant or inappropriate comments rather than being the victims of such behaviours themselves. In fact, slightly over half (52.4%) of Maltese children said they were upset or very upset such comments.

Around 16% of children had the experience of unpleasant or inappropriate videos (16.9%) or pictures (16.6%). This was expected given that school work and watching videos were two of the most common activities carried out by children online, and the finding that opportunities and risk often co-occur. Children can come across inappropriate pictures when they are researching material for school, and inappropriate videos when they are using

platforms such as YouTube. 16.8% of those who had an unpleasant experience with videos reported feeling guilty about this. In comparison to the other risks, this was the highest percentage where children reported feeling guilty, possibly because they had taken a direct action to search or access such videos themselves. Around 56% of children claimed being upset because of such videos, and similarly because of pictures (54%), indicating the potentially disturbing or sexual nature of such visual content online. Over half of those who had seen such pictures spoke to someone about it (53%). Table 14 portrays the age and gender differences in the risk experiences of Maltese children. There are minor differences in the percentages between the age groups as well as between gender.

Table 14

Age and Gender Differences in Risk Experiences

Risk Experience	Child's Age			
	9-10		11-12	
	Boys %	Girls %	Boys %	Girls %
Virus	52.5	47.5	52.4	47.6
Hacking	60.0	40.0	55.2	44.8
Content which is inappropriate for my age	48.4	51.6	48.4	51.6
Being contacted by strangers	49.4	50.6	49.4	50.6
Pop-ups	48.0	52.0	44.3	55.7
Unpleasant or inappropriate comments	48.8	51.2	51.2	48.8
Unpleasant or inappropriate pictures	51.1	48.9	52.3	47.7
Unpleasant or inappropriate videos	53.5	46.5	52.4	47.6
Did not reply	42.3	57.7	38.6	61.4

A Chi-Square test was performed to test the association between the child's gender and the types of risk they experienced. Significant gender differences were found only for viruses ($\chi^2 = 12.813$, $df=1$, $p \leq 0.000$) and for hacking ($\chi^2 = 9.680$, $df=1$, $p \leq 0.002$). It might be that boys experience viruses and hacking more than girls, possibly because of the type of games they play or the nature of sites they visit. A significant association exists between the

child's gender and playing games, whereby boys play more games than girls. This could be why they have more experiences of hacking and viruses.

Digital Skills and Safety Measures

Children were asked to indicate if they knew how to perform particular skills online such as blocking someone and setting privacy settings. Table 15 presents the percentage of children who knew how to perform each skill. Consistently, the percentage for each skill increases with age, implying that the older the children are, the more able they are to perform digital skills.

Table 15

Digital Skills

I know how to	Child's Age				Total
	9	10	11	12	
	%	%	%	%	%
Bookmark a website	26.6	30.8	37.9	45.4	34.2
Block messages from someone I don't want to hear from	29.3	39.3	44.8	49.6	40.2
Find information on how to use internet safety	42.2	48.9	53.6	62.4	50.7
Change privacy settings on a social networking profile	18.3	29.2	39.4	53.2	33.3
Compare different websites to decide if the information is true	20.5	29.8	30.9	41.1	29.4
Delete 'history' of sites visited	25.9	22.6	28.1	41.8	27.8
Remove adverts, junk mail or spam	18.6	24.3	27.6	38.3	25.9
Change filter preferences	6.1	7.9	7.7	16.3	8.5
Did not reply	32.7	23.0	15.7	9.9	21.1

Upon further analysis, it is noticeable that most children do not possess the skills described in Table 14. Furthermore, 21.1% of children did not reply, which could also mean that they did not know how to do any of these things, or else that there was a literacy issue. The percentage of young children (9-10) who did not reply was greater than that for 12-year-old children, which might mean that older children are more skilled.

The total number of skills which a child had (from those listed in Table 16) was computed into a new variable. Table 16 refers to the mean number of skills for the 9 to 10 and 11 to 12 age groups. The average number of skills for children 9 to 10 is 2.12 with a standard deviation of 2.17. The mean for children 11 to 12 it is 2.91 with a standard deviation of 2.3. The mean for Maltese children is comparable to the average number of skills European children have (Livingstone et al., 2011a), however, the average is rather low. The lack of digital skills is quite disconcerting as such skills can be an important first line of defence when children face online risks.

Table 16

Average Digital Skills

	N	Range	Mean	Std. Error	Std. Deviation	Variance
Total skills 9-10	568	8	2.12	.091	2.165	4.686
Valid N (listwise)	568					
Total skills 11-12	529	8	2.91	.102	2.347	5.507
Valid N (listwise)	529					

Children were asked to indicate their preferred sources of information about online safety.

Table 17 shows that children prefer to obtain this information mostly from their parents (78%) and from schools (66%). Children seem to have a preference to learn how to be safe online interpersonally (rather than through media), and from adults (rather than from friends). Children's mental model (Breakwell 2007) of parents and educators includes an element of trust. For this reason, parents and educators need to be well-informed about online safety to be able to impart the correct information when children need their help, but as discussed in Chapter 2, techno-parenting (Yardi & Bruckman, 2011) is not easy.

Table 17*Preferred Internet Safety Information Sources*

I prefer to get information about internet safety	Child's Age				Total
	9	10	11	12	
	%	%	%	%	%
From TV	19.8	26.6	25.8	40.4	26.4
From school	59.7	65.2	66.2	75.2	65.5
From parents	79.5	80.7	75.8	74.5	77.8
From friends	16.3	14.4	17.3	20.6	16.7
Online	16.0	19.7	17.5	23.4	18.5
Other sources	6.5	9.5	5.7	5.7	6.9
Did not reply	4.6	2.6	4.1	1.4	3.5

Children were also asked to indicate which out of a list of safety activities they had performed. Similar to the previous finding related to internet-related skills, 23.7% of children did not reply to this question indicating either literacy or digital literacy issues.

Table 18 below indicates the percentage of children in each age group who have performed these safety activities. Older children seem to be more sensitive to safety issues, such as privacy settings, information in online posts and using different passwords. Setting their account to private so that their name does not come up in a search might not be something that the children are interested in doing so that they can meet new people. This is perhaps the reason why this is the measure least reported by children.

Table 18*Safety-related Activities*

	Child's Age				Total %
	9 %	10 %	11 %	12 %	
I have set auto lock with password on mobile, computer or tablet	45.6	53.1	46.1	57.4	49.4
I have set privacy settings so only friends see what you post	23.2	29.5	34.5	44.7	31.7
I have asked someone to remove a post with personal information or photo	17.5	16.4	17.0	22.0	17.6
I have removed personal information included in a post	12.5	17.4	16.8	19.9	16.3
I have set privacy settings on social networks so that your name doesn't come up on search	9.1	20.0	15.5	17.7	15.5
I have used different passwords	31.9	33.4	43.0	49.6	38.6
I have turned off/disabled cookies	19.0	24.6	25.0	26.2	23.6
Did not reply	32.3	23.3	21.6	14.2	23.7

Limitations of the tool and methodology used.

The questionnaire prepared had to be the same one for all ages, however, some questions might have been more difficult for the younger children to comprehend. The questionnaire did not ask about specific topics such as cyberbullying or sexting directly. A more operationalized definition of the phenomena was used to make it simpler for the children to understand, and to gather as much as possible the children's experiences of these risks without priming them. The problem with this is that children might be referring to other things besides the operationalised risk the questionnaire enquires about. The qualitative part that follows is aimed to provide further clarity through the focus group discussions.

When constructing questionnaires, the researcher selects what questions to ask, and makes decisions about what to include and consequentially what to leave out have to be taken. This might imply that some information relevant to the subject matter could have been excluded. The number of questions asked to children was capped in order to keep them

focused and not get bored, as this might lead them to answer questions randomly, thus introducing error.

Carrying out the questionnaires in class with the PSCD teacher might have led to social desirability bias. Research (Joinson, 1999) shows that when participants in a survey are anonymous there is less social-desirability in their responses in comparison to pen and paper responses. Nonetheless, the latter mode had to be chosen for practical and financial reasons. The teachers informed the students that their replies would be passed on to a researcher, thus putting their mind at rest that the teachers would not know how they answered. Teachers were also advised to limit and be neutral in their explanations, but children's responses might have been biased because of any explanations given. Delivering the questionnaire by the PSCD teacher was considered to be the most ethical course of action nonetheless. The PSCD lesson offered a safe space for children to discuss further any issues resulting from answering the questionnaire.

Another limitation of the survey being a self-report measure stems from the assumption that children will report the truth about their online behaviour. Being a cross-sectional survey, its relevance is also time-limited. Although these results can be used as a spring-board for further exploration, trends in young children's internet use can change in a short span of time, such as the surge in popularity of the TikTok app over the course of the study. Thus, these results need to be considered in the context they were obtained.

Concluding Remarks

The survey findings show that Maltese children have widespread internet access and they use the internet frequently, mostly from their own homes, and around half specifically from their own rooms. Portable devices including laptops, tablets and smartphones are the more popular devices which children use. The majority of children spend between 30 minutes and 2 hours online daily and those who spend more time online during weekdays are more likely to do so during weekends as well. The majority of children carry out content-based

activities online, namely playing games, school work and watching videos, and this matches the findings for European children. Participants also use several SNS despite being below the legal age allowed to be on such platforms. Four in five children do not consider the internet to be a safe place, and three in four children had experienced risks online, with the most common being viruses and pop-ups. Several children spoke to someone for support when they encountered these risks. The percentages of children who claimed to have been very upset because of these risks range from 7% for pop-ups to 34% for unpleasant or inappropriate videos. Younger children have fewer digital skills and use less safety measures and slightly over 20% of the participants do not seem to have any of the skills or use any of the safety measures asked about in the survey. This first phase aimed to understand the new media contexts for preadolescent children. It is within these contexts that Maltese children's sense-making of online risks develop. The second study adopts a qualitative perspective to listen to children's voices about how they experience these contexts and their own understanding of online risks.

CHAPTER 5

PHASE 2 – FOCUS GROUPS

UNDERSTANDING CHILDREN’S SENSE-MAKING OF ONLINE RISKS

Chapter 5. Phase 2 – Focus Groups: Understanding Children’s Sense-Making of Online

Risks

The second study aimed at understanding children’s cognitions of online risks by involving the children themselves in qualitative focus group discussions. Grover (2004) postulates that participants are the experts of their own experiences and that asking children to collaborate in the research process is a recognition of their rights. Using a pragmatic perspective, Rubleske and Berente (2017) describe phenomena as incomplete processes that are emergent, experiential and constantly evolving. When children face online risks, they construct their own understanding of them, and in acting and learning about them, they also shape them. This second phase was approached from this perspective. Children were asked to participate in a qualitative exploration of their thoughts and experiences about online risks.

Focus Groups as a Research Method

Since the subject of online risk can be a sensitive area for some children, the qualitative research phase could tap into the subtleties of children’s voices that might not have emerged in the quantitative phase (Mishna et al., 2009). Focus groups were deemed to be the best option to do so, because when children are familiar with the issues at hand, they can be engaged in a discussion (Horner, 2000). The survey verified children’s familiarity with the topic and thus, focus groups were an appropriate choice. This method is also ideal for researching social representations as it accesses the shared meanings held by the participants (Heary & Hennessy, 2002), in a context within which they occur, and a diversity of voices can be accessed (Wagner et al., 1999). Context and shared experiences are central to the study of these representations. Focus groups mimic the “routine but relatively inaccessible

communicative contexts that can help us discover the processes by which meaning is socially constructed through everyday talk” (Lunt & Livingstone, 1996, p. 85). The key characteristic of focus groups is that through interacting, participants share their thoughts, feelings and behaviours and thus producing data (Gibbs, 1997). Using focus groups with children employs a child-centred approach where the children who are the ultimate experts in their own life can make their voices heard (Bond, 2013).

Participants

When identifying a suitable number of participants for a qualitative study, Marshall (1996) suggests a sample size adequate for answering the research question, in such a way that no new data is generated when more participants are added. A convenience sample of participants was chosen from 8 schools where I had contacts. The Heads of these schools were informed about the purpose of the study and were asked to forward my request to parents, who in turn provided consent if they were comfortable that their child participates in a focus group. Once the deadline for returning the consent forms had elapsed, appointments to carry out the focus groups were set. Six focus groups with children aged 9-12 were conducted during October 2016.

Prior research suggests that four to five participants in children’s focus groups is the ideal number (Morgan et al., 2002; Hoppe et al., 1995). From my prior experiences with carrying out focus groups in Maltese schools (Smahel & Wright, 2014), the target number of participants was not always reached. For this reason, when the Heads of schools were contacted, I informed them that six to eight participants would be needed, in order to ensure that the ideal number of participants was reached. In the first school, 13 parents had consented, but when children were called for the focus group, 5 preferred not to participate because they did not want to miss out on their lessons, and the first focus group was held with 8 participants. For the next two focus groups, the maximum number of children requested (8) were selected by the school before I arrived, and all the students were present on the day and

assented to participate. In another 2 schools, I was given a list of all the children whose parents consented and asked to draw participants. To maintain consistency, I decided to draw 8 children to participate. In the last focus group, 9 parents had consented, and the headmistress asked me to carry out the focus group with all the children.

Enlisting the school's help to carry out the data collection and in the selection of participants can have both advantages and disadvantages. Primarily, children spend a considerable amount of time with their peers at school, making them an important social context. In such a context, social representations are shaped and transmitted. Children might also feel less inhibited discussing risky experiences with schoolmates, since they would already be familiar with the other participants. However, this might make them anxious about confidentiality, and knowing the other group members can also have an impact on the group dynamics (Morgan et al., 2002). Schools were also very helpful in providing a place where to hold the focus groups and having the requested number of participants. One downside of holding the discussions in schools was that in some cases I had no say in the way the students were selected. My decision to maintain consistency and have 8 participants for each group resulted in very rich discussions, but these sometimes extended beyond the hour allocated and some of the participants started to become less engaged. Transcribing focus groups with 8 participants was an arduous task and, in some instances, it was difficult to identify who was talking, especially when children did not take turns to talk.

Three of the focus groups were held with children aged 9 to 10 and the remaining three with children aged 11 to 12. Children were grouped in such a way in order to avoid age discrepancies that might inhibit the participation of younger children (Hoppe et al., 1995). Moreover, the younger participants were in primary school and those over 11 were in secondary school, and it was more practical to conduct each focus group in one school. Researchers (Heary & Hennessy, 2002; Morgan et al., 2002) suggest that mixed gender discussions can be used for these ages. Thus, for each age group, one mixed-gender and two

single-gender focus groups were conducted. The six focus groups were held in state (mixed gender) or church (single gender) schools in Malta, and children could speak in either Maltese or English, since both languages are spoken on the island. Table 19 presents the participants' demographics and pseudonyms together with the duration of each focus group.

Table 19

Participant Demographics

Mixed 9-10			Boys 9-10		Girls 9-10		Mixed 11-12			Boys 11-12		Girls 11-12	
57 mins			51 mins		90 mins		76 mins			59 mins		53 mins	
Niamh	F	10	Ivor	9	Erin	10	Kelly	F	10	Donal	12	Kathleen	11
Giulia	F	10	Tommaso	8	Eleonora	10	Alessandro	M	11	Andrea	11	Claudia	11
Jeannette	F	10	Gilroy	10	Fiona	9	Justin	M	10	Jacob	11	Sinead	11
Carlo	M	10	Gabriele	9	Valentina	10	Nuncio	M	11	Lorenzo	12	Giada	11
Jarlath	M	10	Conor	9	Norah	10	Kevan	M	11	Desmond	12	Sheila	11
Serena	F	10	Riccardo	9	Isabella	9	Marta	F	11	Piero	11	Alessia	10
Grady	M	10	Brennan	10	Ainthe	10	Siobhan	F	11	Declan	11	Aileen	11
Samuele	M	10	Giovanni	10	Arianna	10	Francesco	M	11	Simone	11	Lucia	11
												Alannah	10

Hoppe et al. (1995) suggest that focus groups with children are held in a private and informal setting, ideally with a round table where the participants can be close to the moderator who is dressed neatly yet informally. I was very careful in selecting what to wear and to ensure that the chair I used was the same as those of the participants, especially when the schools suggested using a larger office chair. This helped reduce the power imbalance between me and the participants (Horner, 2000). Four of the focus groups were held in the school's board room or discussion room. The other two were held in an assembly hall and in a chapel's balcony. The board room setting helped me position the participants as experts in a round table discussion (this will be elaborated upon in the next section). Sitting on comfortable chairs and cushions made the environment less threatening. Despite these settings, it was not always easy to have no interruptions. In fact, 4 of the focus groups were interrupted either by a teacher or another student at some point. A participant from the focus

group held in the school chapel balcony clearly expressed that she was refraining from using a rude word to describe one of her online experiences because she was in the chapel. Being inside the chapel might have inhibited the children from expressing themselves fully, despite being in a comfortable space that was usually used for informal discussions.

Preliminaries and Ground Rules

Before starting the discussion, I gave each participant a name tag, used one myself and asked participants to refer to me using my first name rather than ‘Miss’ as children often refer to female teachers. I presented myself as someone who like them was studying and that the purpose of discussion was so that I could learn from the children (Gibson, 2012), as they were the experts in that scenario (Heary & Hennessy, 2002; Porcellato et al., 2002). They were also reminded that there were no right or wrong answers and that the discussion was not a test situation. These preliminaries were aimed at minimising the power imbalance in the research situation (Horner, 2000).

Establishing trust was another important aspect for the process of the focus group discussion, since the participants did not know me. Being introduced by a teacher and reminding the participants that their parents were informed of the research and they had consented for them to participate helped this trust develop, but I also explained that I would not report what was discussed to their teachers or parents.

Next, the ground rules for the focus groups and their rights as participants were presented in simple terms to ensure that the participants could understand them (Gibson, 2012). Children were reminded that they were free to not answer any questions that they were uncomfortable with. They were also informed about confidentiality, their right to withdraw and how I would be using the data collected. At this point, the children were also told that the discussion would be recorded to help me remember what was discussed. As Porcellato et al. (2020) suggest, they were told that they could also listen to part of the recording once the discussion was over. This often intrigued the participants and also helped reinforce their role

as experts. Participants were encouraged to express themselves when they had different opinions or ideas from the ones being discussed. Finally, they were also asked to maintain confidentiality within the group and not divulge anything that was said in the group to anyone who was not part of the group discussion. This loss of confidentiality can be very risky in focus groups (Horner, 2000). Children themselves anchored confidentiality during the focus groups to the confidentiality they discussed during PSCD lessons and I used it to remind them of how confidentiality in the focus groups works.

Assent and Pre-Focus Group Sheet

Once these preliminaries were established, children were asked to give their assent (Morgan et al., 2002) to participate in the research by reviewing and agreeing to the assent form (Appendix 7) detailing all the ethical conditions that I was abiding by. Before starting the discussion, children were given a pre-focus group sheet (Appendix 8). They were presented with the list of risk perception statements in Question 15 of the Survey (Appendix 2) and asked to tick 'Agree', 'Disagree' or 'Don't Know'. They were also asked 2 open-ended questions about what they considered as 'things which are unpleasant or inappropriate on the internet' and 'the worst thing that can happen to a child their age online'. The aim of this sheet was to crystallise the way they would answer these questions to counter the groupthink effect and the pressure to conform that are common in focus groups (Horner, 2000; Porcellato et al., 2002).

Procedure

The focus group questions were short, open-ended and simple ones to be attuned to the participants' cognitive abilities (Sinner, et al., 2013). The discussion started with a warmup question meant to be easy for all participants to answer (Horner, 2000) to start creating a comfortable atmosphere. Participants were asked to introduce themselves and describe what they liked doing in their free time. This also served to check who would mention activities related to new media without being prompted. Participants were then asked

to explain what they did ‘online’ and ‘on the internet’. When this question was asked, some children spontaneously mentioned things they were cautious of. This was a great way to lead into the main section of the focus group where participants were specifically asked what they are careful of when online, what they understand by ‘unpleasant’ and ‘inappropriate’ things that can happen online, and the worst thing that could happen to a child their age online. They were also encouraged to disclose personal unpleasant experiences online and to discuss any preventive measures they used or would suggest using to avoid negative experiences online. The focus group guide is presented in Appendix 9.

Throughout the process, as a moderator I engaged in paraphrasing, summarising and asking clarifying questions to ensure that the participants’ views were being accurately reflected (Horner, 2000). When children responded without elaborating on their replies, I used follow-up questions and prompts to refer back to the topic and tried to help them elaborate without leading them. In case when participants found difficulty with articulating their answers, I helped them concretise what they wanted to say (Hoppe et al., 1995) by asking them how they would explain it to a peer or how they would teach someone how to do it. However, it was hardly the case that a question had to be skipped because the children could not answer it. Often there was a “synergistic effect” (Hoppe et al., 1995, p. 102) because one of the participants would start replying to the question, and the others continued. Occasionally, a participant would repeat what others said when they replied to a question and it could be that the participants were influencing each other’s responses. However, in these instances, when referring to the pre-focus group sheets to identify whether this could be a case of groupthink, it did not seem to be so. What the children discussed was consistent with what they wrote in the pre-focus groups sheet.

While engaging in the discussion, I tried to be as neutral as possible in my responses and withheld any verbal or nonverbal expressions of approval, disapproval or shock, as well as personal opinions. This was essential in order not to influence participants (Gibbs, 1997)

and to avoid social desirability biases. When misinformation happened, I faced an ethical dilemma whether to correct that information or refrain from doing so to maintain this neutral position and gauge what the participants wanted to say. I chose to refrain from correcting the misinformation in order not to influence the participants, with the intention of doing so during the debriefing, but it was often the case that another participant challenged that information and corrected it during the focus group.

The time allocated to carry out the focus groups was very limited (45-60 minutes). Thus, only a small icebreaker was used to get the focus group started. Even though icebreaking activities are essential for establishing trust, it was preferable to have more time devoted to the discussion. This was possible because participants in each group came from the same school, and most of them knew the other participants beforehand. Having the discussion move to a tangential topic, was also an issue because of the limited time. Gibson (2012) recommends patience when this happens, as this reflects how children think and it might still be relevant to the topic at hand. When I gauged that the discussion had strayed too far from the topic, I drew their attention and also used the recorder as a tool to remind them of the time limit of the focus group.

Ethical Issues

Ethical decision-making is an ongoing process throughout any research. Such issues need to be dealt with carefully, particularly in qualitative research, where the participants are not anonymous, the researcher interacts with them for an extended period of time, and the participants reveal personal information. Since the focus group participants were minors, attaining parental consent before engaging the participants in the research was essential. With the schools' collaboration, parents were sent an information letter (Appendix 5) and a consent form (Appendix 6) that detailed the conditions of the research. Parents were informed that their child's participation would be voluntary, and that they were free to quit the study at any time they chose without any repercussions. Parents were also told that even though the

children were participating in a discussion, their identity would not be disclosed. This meant that their names would be changed, and no identifying information (such as the school they attended or any particular information that would reveal their identity) would be divulged when reporting the study. The information sheet also explained that the discussion would be audio-recorded and only accessed by me, that no deception would be used in the data collection process and that children would not be asked to miss important core subject lessons to participate in the research.

It was only after receiving the parents' consent forms that the children were invited to take part in the focus groups. The initial step was to explain the research process to the children themselves in terms that they could understand. Once their rights and my responsibilities were explained, they were reminded that if they wanted to proceed with participation, they were to sign the assent form (Appendix 7). Most participants decided to proceed with participation. At times, it also seemed that some participants were glad to be involved in something different rather than their lessons, and I had to ensure that they were not trying to prolong the discussion unnecessarily in order to stay out of their classroom as might have happened in the focus group with the younger girls.

As Heary and Hennessy (2002) discuss, parental consent and child assent are not sufficient to address the ethical issues in focus groups. Another important aspect was to remind the children of within-group confidentiality: what was shared within the group was not to be discussed with anyone else outside the group. I also monitored the participants' stress levels during the discussion in case the participants got upset when sharing their experiences or during their interactions with others.

Data Analysis

Anonymising and Transcribing the Data

Once the data was collected, it was immediately anonymised, primarily by assigning reference numbers for each focus group and creating pseudonyms for the participants. Clark

(2006) suggests that data should be anonymised immediately after data collection. This involves the process of removing any identifying and background information so that the participants cannot be traced. Thus, children in each focus group were assigned pseudonyms. Irish and Italian names were chosen as an homage to my Erasmus+ placement in Ireland and in Italy where I transcribed and analysed the data. School names, location-related information and any other names mentioned were also removed from the data during transcription. A trail of how the data was anonymised was kept in a secure, password protected file in a separate drive that could be accessed if required.

I listened to the audio-recordings and transcribed each focus group verbatim. This helped me familiarise myself with the data. After transcribing a focus group, I listened to the recording another two times while reviewing the transcripts, in order to correct any errors. This was also an opportunity to start writing preliminary thoughts related to the data, prior to the coding process. As often happens in transcribing focus groups with children, it is not always possible to attribute dialogue to specific participants (Porcellato et al., 2002) particularly when children did not take turns to speak. If it was still impossible to identify the participant after the second review, the speaker was labelled as 'UP' – Unidentified participant. Since the discussion was the main focus rather than who the specific participants were, such extracts were still relevant for the analysis.

Thematic Analysis and NVIVO

Thematic Analysis as described by Braun and Clark (2006, 2012) was chosen for analysing the data from the focus group discussions. Even though other approaches for thematic analysis exist (e.g. Boyatzis, 1998), Braun and Clark's approach was chosen as it is a flexible approach, adaptable to different theoretical frameworks and research paradigms and I was already familiar with this analytical process. Discourse Analysis and the Interpretative Phenomenological Approach were also considered but discarded because the former focuses on the structure of discourse and the latter focuses on the lived experiences. While both could

contribute to insights about risks, I considered Thematic Analysis to be more relevant to understand children's cognitions. The method is useful for identifying and analysing patterned meanings across a qualitative dataset to provide an answer to the research question. The process of transcribing contributed significantly to start immersing oneself in the data – the first step of the thematic analysis process. This stage involves the active and repeated reading of the data to establish a familiarity with the data and to start identifying possible meanings and patterns.

The second step was to start generating the initial codes. The process of coding involves the labelling of segments of the data according into “conceptual categories” (Weitzman, 2000, p. 804). Considering the volume of data, it was decided to make use of NVIVO, a Computer Assisted Qualitative Data Analysis (CAQDAS) tool to enable better data management, accessibility, searchability and the visualisation of the research's thinking all in the same space (Weitzman, 2000). It also provides the possibility to shift between moving close to and away from the data as necessary. Being close to the data maintains the link between a code and its context, while the distance allows the researcher to make connections and abstraction (Gilbert, 2002). Once the data was imported into NVIVO, significant parts were highlighted and annotated during another reading of the data. The coding process followed.

Segments of data (sentences or phrases) were assigned labels related to the features of interest in the data. The coding process was useful for categorising the data meaningfully in relation to the research question. Braun and Clark (2006, 2012) recommend inclusivity, thoroughness and systematicity so that all the data is coded for as many fitting codes as possible. Driven by social representations theory as an analytical framework, deductive coding was used for a constructionist thematic analysis where latent meanings were identified to unravel the content of the participants' representations of risk. However, inductive and semantic coding were also used to identify the meanings present in the data at face-value.

This helped ensure that any meanings present at surface level were not ignored, as the discourse children use is also linked to their representations. The coding process resulted in 413 nodes (codes in NVIVO). After another review and some cleaning and merging of these nodes, there were 360 nodes to work with. Weitzman (2000) warns about using NVIVO as a shortcut to replace the researcher's own thinking and skills in qualitative data analysis. Having previously carried out qualitative data analysis manually enabled me to shift between using NVIVO and working manually on the data to make use of the possibilities provided by the tool but also avoid becoming "bogged down" (Gilbert, 2002, p. 218) by the coding process and to decide when to move on from coding to the process of analysing the codes.

The next stage was to look for possible themes by grouping these nodes into parent nodes according to meaningful categories. Using NVIVO, a codebook was created, and each node was assigned a description. An extract of the codebook is presented in Appendix 10. I also used the codebook to work manually on the data and reflect on the possible relationships between the different codes. Similar or related codes were collapsed while others were expanded. This process resulted in a list of candidate themes. The fourth and fifth stages of thematic analysis involved reviewing the themes and assigning a name and definition to each one. For each theme, the coded segments were reviewed to ensure that they fit within the theme, and each of them was also reviewed in relation to the data as Braun and Clark (2006, 2012) recommend. The subsequent part of this chapter presents the themes identified together with examples from the data.

Themes

Table 20 presents seven themes lifted from the data and how they were derived from parent nodes, which were identified from around 360 basic nodes in NVIVO. The themes are: 'Handle with Care', 'Tangible considered risky', 'Making risk less fuzzy', 'Perceived benefits supersede concerns', 'Knowing with confidence', 'Favouritism towards themselves', and 'The family: multiple and contrasting roles'. The sections that follow provide an in-depth

explanation of the themes together with direct quotes from the focus groups participants. The transcription conventions used are presented in Appendix 11.

Table 20*Themes identified from the Thematic Analysis*

Theme	Subthemes	Codes		
1. Handle with care	<i>Privacy risks</i>	Sharing	Asked to share information	Surveillance
	<i>Inappropriate content</i>	Explicit Inappropriate links & photos	Nudity Rude photos & videos	Rude Words Sexual & vulgar content
	<i>Cyberbullying</i>	Anonymity Insults	Negative comments online Self-confidence issues	Stalking Photo editing
	<i>Inappropriate messages</i>	Threats	“Something is off”	Blackmail
	<i>Hacking</i>	Hacking of personal data	Hacking in Games	Scams
	<i>Stranger danger</i>	Dangers when friending others Fake Profiles Meeting Offline	“Someone” “They” or “Them” Requests from Strangers	Unknown as threat Unpredictable
2. Tangible considered risky	<i>Negative reactions</i>	Being cheated or deceived Data Theft Disappointment Disgust	Disillusion Dislike Does not make sense Finding fake information	Negative reaction to content or contact Physical Effects Ruin your life Unfair
	<i>Direct consequences</i>	Getting pop ups or a virus	Being hacked or hacked in games	Malfunctioning or damaged device
	<i>Personal negative experiences</i>	Learning from experiences Experience-related literacy	Being attacked in games Being banned from games	Perpetrator is known Persistence of perpetrator
	<i>Out of the ordinary</i>	Not within their ordinary experience	Unusual	
3. Making risk less fuzzy	<i>Anchoring</i>	Parallels to the offline world Associations	Not opening doors to strangers	TV Ratings
	<i>Objectification</i>	Indicators Symbols	Intruders at home Locks signify safety	Inappropriate pictures and titles
	<i>Embellished stories</i>	Anecdotes Exaggerated	Fantastical Unclear	Use of stereotypes
	<i>Media shapes the understanding of risks</i>	Filling in the blanks Using media to learn about risks	Globalisation Hearing of Incidents	Talking Pets
	<i>Adult-talk</i>	Unwritten rules	“Nowadays”	Does not sound like a child is talking
	<i>A sense of helplessness</i>	Child portrayed as naïve Lack of Control Feeling Helpless Magical	Not reporting for fear of consequences Passive “Go on recommended”	Things can happen You never know Lack of literacy skills

Theme	Subthemes	Codes		
4. Perceived benefits supersede concerns	<i>Opportunity for connections</i>	Accepting friends in games Chatting & playing with friends Chatting & playing with strangers Collecting friends	Followers Friend requests in games Hanging out Peer pressure	Need to belong Exploring romantic relationships Possibility of privacy Connecting with celebrities
	<i>Satisfy their Curiosity</i>	Nice to know Perceiving danger but doing it anyway	Seeing photos Spying on Siblings	Reading comments Stories
	<i>Internet as a tool</i>	Information & learning Internet perceived as credible	Suggestion-Seeking Watching Videos	Playing Games Using SNS
5. Knowing with confidence	<i>Awareness of risks</i>	Consequences Dangers	Digital Footprint Safety & privacy issues	Personal Known can be a threat
	<i>Knowledge and skills</i>	Giving advice From experience	What child knows Teaching others	Technical Knowledge Technical Skills
	<i>Critical Thinking</i>	Asking for clarification Opinion about making friends online	Reflexivity Scepticism	Challenges what is said Disagreeing with participants
	<i>Preventive strategies</i>	Accessing age-appropriate content Action needs to be taken Adding no one	Checking behaviours Declines requests from strangers Non-use	Not posting Only adding real life friends Signing out
	<i>Coping strategies</i>	Blocking & reporting	Stopped using it	Unfriending
6. Favouritism towards themselves	<i>Partiality towards their own risky behaviours</i>	Answering back Attention-seeking Talking to Strangers Cheating	Consuming violent content Getting back at someone Provoking others Reacted to insults by insulting back	Underage use of SNS Rule-breaking Rule-bypassing Double standards
	<i>Rationalisation</i>	Classifying Behaviours	Justifications	
	<i>Defensiveness</i>	Mistake Never did this	Never experienced this Non-use	Not on purpose Only reason I use...
	<i>Others are at risk</i>	Judgements Assigning blame and responsibility	Peers Younger children as more vulnerable	Jealous of older children Younger selves
	<i>The internet can be cheated</i>	Providing fake date of birth Giving fake information	Lying online Mod Menus	Personification of the internet
7. The family: Multiple and contrasting roles	<i>Providing support</i>	Asking parents for help Parents "know"	Accompanying & Monitoring Role of father	Children expect support Knowing passwords
	<i>Rules and Limitations</i>	Asking permission before posting Checking behaviours	Forbidding specific activities Setting rules	Punishments Role of mother
	<i>Mixed messages</i>	Using parents' devices Parents' use of SNS	Setting up Facebook for children Parents by-passing rules	Giving them access to 18+ games Technology as child-minding tool
	<i>Risks through siblings</i>	Jealous of older siblings	Exposure to inappropriate content	Inappropriate support for online issues

Theme 1: Handle with care

The first theme portrays that children are aware of and concerned about different online risks. Through most of the activities children carried out online, they had access to several opportunities and although these were often positive and enjoyable experiences, the way children spoke about their activities online was also imbued with concerns. Children often mentioned their apprehensions related to online activities spontaneously, before being prompted by the questions to discuss these issues. When explaining what she does online, Alannah mentioned she used YouTube, but immediately referred to her cautiousness: “I also go on YouTube... but I be [am] careful what I watch”. Participants also pointed out problematic issues when discussing each other’s online activities. Ivor explained how he used Facebook and that he refrained from chatting to strangers. The other participants immediately pointed out he was too young to be on Facebook.

IVOR: I stay chatting on my Facebook but I don’t stay chatting with people I don’t know

R: OK

GABRIELE: You’re not supposed to have Facebook

UP2: True

When participants were asked about what children their age should be careful of online, they mentioned several things. The most salient ones were inappropriate content, cyberbullying, inappropriate messages, the danger posed by strangers, hacking and privacy issues. These are the risks that are frequently discussed in information and education sessions and also in the media, which might explain why children were readily aware of these risks. This also indicates that the awareness of possible risks is part of the context in which children go online and hence why they often proceed to express the need to be careful.

Privacy Risks. Children were aware of the dangers that could result when information that is shared online is accessed by people with malicious intentions. This passage from the older boys' focus group is one such example:

DECLAN: for example, on Facebook...when you kind of say, for example they say “In 1 weeks' time I'm going to Sicily” for example

DONAL: and they rob you

DECLAN: and you, in one week time...rob...they go there, see if you're at home, and they go into your house [break in] and rob you.

Cyberbullying and Inappropriate Messages. Cyberbullying and receiving inappropriate messages online were another two issues that worried children. The term 'cyberbullying' was mentioned in all the focus groups with the older (11-12 years) children, but only once in the younger children's (9-10 years) focus group. Lorenzo explained that when “you post a photo and they start laughing at you”, it is “like cyberbullying”. Younger children still flagged several aspects of online communication as a concern. These included being insulted and receiving negative comments, which might indicate that they were also aware of such risks, but that perhaps they do not yet assign the label 'cyberbullying' to such experiences. Older children also referred to being threatened, blackmailed or stalked, and the problems that anonymity could pose in such interactions. When a participant mentioned that a man had started following her on her social media accounts, Kathleen promptly explained: “he was stalking you”.

Stranger Danger. Children were aware that strangers posed a danger online. Some children spoke of the danger of being kidnapped as a consequence of meeting someone face-to-face after meeting online first. Even though strangers online are often associated to grooming and child abuse, participants mostly perceived strangers as gateways to being hacked or to getting a virus. As Sheila explains, she declines requests from strangers, “because you don't know who this person is. (...) I think that they're gonna hack me

sometimes”. There were no explicit references to grooming or the risk of sexual abuse as a threat posed by strangers. This does not mean that children were not aware of such a risk. Some children might have been aware of it but were either uncomfortable being outright about it or unsure how to explain it, as the quote below by Marta might suggest:

I think that children my age, eleven years, have to be careful...not only of eleven years...if they're... less than 18 I think they need to be careful from people that for example they don't know, because they could do any...anything to you (Marta).

Negative Reactions. In several instances, children seemed to associate the internet with negativity, and they often expressed their disappointment and disillusion about the possibility of being deceived or cheated online or when they themselves experienced it. When such experiences happened, children often experienced negative emotional states. The focus groups' findings seem to confirm the negative perception children have of the internet that resulted from the survey.

When asked to rank what they considered ‘the worst’ thing that could happen online to a child their age, an interesting contrast emerged. For some participants, the gravest experiences a child could have online were tangible experiences such as being hacked, but some other participants classified other possible incidents, such as cyberbullying as worse as the quote below shows:

R: If I had to ask you to discuss a bit the worst thing that can happen to someone your age on the internet?

JACOB: They hack you and they ban you

R: They hack you and they ban you. Andrea?

ANDREA: That...you're a victim of cyberbullying.

The reason why children have a negative perception of the internet, together with their understanding of what they consider to be the worst thing that could happen to them could be a reflection of several factors. It is possible that they are their own experiences, but also what

they learn from others and from the media could be among these factors. These issues are expanded upon in the following themes.

Theme 2: Tangible considered risky

Children's awareness of online risks seems to be brought about by different factors, and sometimes it is their own experience that gives them insight into these issues. The tangibility of these experiences leads them to consider them as risks. This is often the case with inappropriate content. In the following excerpt, Claudia explains what happened to her when she mistakenly forgot to use Kiddle, a Google-powered search engine specifically for kids: "Once I didn't go on...on Kiddle and I typed it in, the series that I wanted to watch, and there were all these pictures about women and how to find a woman online, and they really bothered me".

Direct Consequences. Children were more able to perceive risk when something had immediate effects or direct consequences. It seems that in such situations, they were also more adept at managing risk. In the survey, technical issues were consistently rated the worst thing that could happen to the participants. It seems that this might be because technical issues had direct and tangible effects on the children's online experiences. One such consequence was children not being able to use the device when it was damaged, and they could no longer use it because of viruses and hacking. Brennan explained: "And I was playing...I chatted...I chatted with someone...and they started making me a virus (...) on the tablet and then they had to buy me another tablet". While it is highly unlikely that a virus would damage a tablet beyond repair, this participant associated the damaged device which he could no longer use with the virus. This was not the only instance where a damaged device was linked to a virus. Kevan explained: "they add someone they don't know... ehm... that someone could send them a virus or something that could damage the computer". These two quotes also portray how strangers are perceived as sources of viruses as discussed in the previous theme.

Pop-ups were often accessed through games or streaming sites such as Potlocker and these pop ups would be links to “rude sites” such as pornographic sites or links that download viruses. When children explained how pop-ups work, they seemed to imply that an unknown person with harmful intent was behind such pop-ups and this resulted in harmful consequences. This personification of pop-ups is evident from this excerpt where Aine refers to them as “they”: “they say like: “do you want to get lots of money?” (...) and they say, “just write where you live”.

Personal Negative Experiences. Participants’ online interactions and behaviours that resulted in negative experiences provided them with the utmost tangible effects because they could relate to it from their own experiences. When this happened, they learnt from it and gained digital literacy skills associated to these experiences. This was evident from the nuanced way they spoke of the issues they had experienced online. Simone was very disappointed that after finally convincing his parents to give him some money for purchasing points for his FIFA game, he was hacked. However, he clarified that “they didn’t hack (...) the game itself (...) but they hacked my FIFA Points”. Nuncio related how “on YouTube, sometimes there’s a title that’s...misleading”. He was expecting to see a video about gadgets, but instead he came across a picture of “a gigantic butt of a girl”.

In response to what was the worst kind of experience that children their age could experience online, those children who had been through a personal negative experience often claimed that something similar to what happened to them was the worst that could happen to a child online.

AILEEN: A worst thing that can happen to you is like what happened to me.

R: What happened to you?

AILEEN: Another older guy can start contact... contacting you and... you don’t... and first of all I wasn’t ehm... replying to him first of all because I don’t even know

him, and secondly, he might try and find... find me and start doing... and sending me stuff.

Out of the Ordinary. Children also exercised more caution when something was not part of their ordinary online experience. They even became more risk averse. Apart from having direct consequences that resulted in damage to their device, pop-ups also interfered with what the child was doing online, creating an unusual situation which made it easier for the child to identify the possible problems with pop-ups. The following excerpt is Piero's way of explaining the issue with pop-ups.

For example, when you open a lot Potlocker, YouTube, a lot like that, the pop ups start coming up a lot, and if you don't bring them down [close them], if you don't remove them immediately, like Jacob said, a virus comes.

In Aileen's case, the 'unusual' was a 60-year old man who was contacting her on her various social media accounts. She described feeling "uncomfortable" as "it isn't usual for someone who is an old guy to add someone which [who] is 11 years old".

This theme portrays another aspect of children's online experience. When they have first-hand negative experiences, they are more knowledgeable about online risks and they also become more adept at managing such risks. This also substantiates the survey findings that risk experiences online and digital skills are often associated. The downside of this is that it seems that children seem to be learning skills through risky experiences. However, this is not entirely negative when considering that exposure to risk and resilience are related and harmful consequences are less when compared to actual risk experiences (Ringrose et al., 2012; D'Haenens et al., 2013; Livingstone et al., 2001b; Livingstone & Haddon, 2012).

Theme 3: Making risk less 'fuzzy'

When discussing how children understood risk, it was evident that they did not always have sufficient knowledge about it, but they had means to explain it in a way to make it less fuzzy for themselves and fill-in the blanks they had.

Anchoring. It seems that when referring to risk-related issues, children used anchoring to identify risk or safety-related issues through associations or parallels in the offline world. For example, the following excerpt, is from the older boys' focus group where they were discussing how to identify apps that were inappropriate for their age by comparing their ratings on the Apple Store or Google Play in terms of age ratings for 'Klassi Għalina' a local TV series.

DONAL: For example, you ha...on the right you have like...

UP4: 18+

DONAL: 18+, 12+, 13+

R: Ok, all right. So, from that you can tell if it's good for your age

ANDREA: And also, on ehm

DONAL: And you have written parent guidance

R: Parent Guidance... what does it mean Parent Guidance?

UP4: PG

UP4: PG

UP4: PG right!

R: Eh, PG. But what does it mean?

DONAL: PG, your mum and dad would know you have it.

R: Ok so if you install it...

JACOB: For example, there would be a program...for example 'Klassi Għalina': It would be PG. Your mum and dad have to be next to you.

When asked to explain what 'parental guidance' meant, not all participants could explain it. It seems that when anchoring online risks in other risks, participants were not always clear as to what this implied, similar to what Conway and Hadlington (2018) found when young people anchored cybercrime in offline risks.

One of the possible problems mentioned by children was the issue of becoming ‘addicted’ to their devices or to games such as Pokémon Go which had just had a bout of popularity some time before the focus groups were conducted. Some children mentioned accidents and deaths related to this ‘addiction’. When I asked them to explain what they meant by addiction, Jacob explained: “your eyes would be fixed on the mobile, you wouldn’t see, for example it says go right, and you keep going, bang... a car [hits you]... bye bye”. Here he was referring specifically to the Pokémon game, and he explained the result of the addiction as being too engrossed in the game that one would not notice their surroundings, such as an oncoming car. When probed further to explain what they meant by addiction, Simone just referred to drug addiction without really explaining what the term could mean in terms of being addicted to apps, games or device. He said: “Or for example a drug addict, for example he likes to take drugs, and like, he keeps doing that”. This indicates that when children anchor online concepts in offline counterparts, they might not always understand have a clear understanding of the concept.

The concept of online privacy and deciding what information to share online can be quite difficult to understand for children. In the focus group discussion with younger girls, they initially started arguing that if somebody was in a public place, such at a restaurant or on a beach, there was no harm in sharing photos online from such occasions. Arianna explained: “you can share that you are having fun at the beach... but you would not share that you are in the shower... and you take a photo of yourself in the shower”. As a follow up to this, Erin explained that she wouldn’t share something like: “I’m home alone” because of the danger it could pose when strangers obtain such information. Suddenly, the discussion then veered towards the risks of opening the door to strangers when at home alone. This is probably one way of linking the dangers of sharing photos and personal information online to a similar danger in the offline world that was easier for them to understand the risks of.

Objectification. Children seem to associate specific symbols and indicators with problematic content online. When they hear bleeped out words, they immediately understood that there are rude words that are inappropriate for them. When discussing a YouTuber's videos, Jeannette explains: "Yes, he puts a 'Teet' so that... as he would not want children to learn bad things". In another discussion about YouTube videos, the older girls mentioned that if the preview shows rude pictures or there are rude words in the title, the video is inappropriate for them. Alannah explained: "if I see like it's not appropriate, I don't click on it". It would be ideal if when children see such indicators, they stay away from such content. However, this cannot be guaranteed, especially when children are curious and they bypass their parents' rules. Giada explained that she was streaming the movie *Suicide Squad* and: "my mum doesn't let me see it, but I'm still seeing it". Moreover, not all risky content online comes with indicators that it is inappropriate for children, as it is through traffic and adverts that most sites generate revenue.

Children use other indicators for safety. They seem to associate the appearance of a padlock next to the address bar in the browser with safety: "If there is a padlock, it means it is safe". While this partially symbolises safety as it means that the communication on the particular site is encrypted, there can still be threats to information privacy and it can be risky if children equate only this with safety. Personification of specific elements on the internet is another way in which children seem to use to make their online experiences less fuzzy. Expressions such as "Google tells you...", "You ask Google", "The game asks me..." were very common in the focus groups. Sinead described the search function as being almost magical. She explained that when she types what she needs help with, "sometimes it gives me the answers".

Embellished Stories. The processes of anchoring and objectification are also evident in some of the ways in which children explained risk, which at times were unrealistic or anecdotal. It often involved recounting embellished stories they had heard, or events that

happened to distant friends or family members. Children fused real risk possibilities with exaggerated or fantastical elements, and this often resulted in incomplete or unrealistic, yet dramatic ways of understanding risks. This focus group finding corresponds to what Smahel & Wright (2014) found in children's vivid ways of explaining stranger danger, which is probably the least tangible online risk. Children filled in the gaps with other pieces of information that were obtained from elsewhere, such as media reports and possibly even from fictional stories. Giovanni narrated the following story:

Because nowadays, there's a guy in Malta, that's what happened to him. He used to chat with people, and then, and then suddenly...and then suddenly there was a person, he knew everything about this person because they used to chat and chat and he ended up killing him.

There has been no such known event locally, but in the boy's narrative, chatting led to this man's murder, without any context whatsoever.

Erin stated that her mum always stressed the importance of logging off from Facebook. Instead of understanding the possible issues related to data or identity theft, the participant claimed it was because of the possibility that "some burglar comes (...) in the house (...) and goes on the thing of Facebook". This could also be another instance of anchoring privacy risks in an offline type of risk. Aine explained that the risk with pop-ups promising money was that "instead of getting lots of money (...) they come and find her and kidnap her". Kidnapping was commonly mentioned as one of the consequences of playing online games or hacking. In the younger girls' focus group, Aine claimed she knew of pop-ups "that kidnap[s] you!". This could be an indication that the children are aware of potential problems with specific online activities, but it seems that they do not have sufficient knowledge about what could be problematic, and they fill-in the blanks with something they can understand: kidnapping. This is a rather extreme consequence that does not happen so often in relation to encountering online risks, and yet it was mentioned quite frequently. This

'story' might be a reflection of the availability heuristic (Breakwell, 2007). Information on stranger danger obtained from adults or from the media, particularly fictional media, results in unclear or unrealistic explanations of risk.

Stereotypes are another way which children used to explain risks online. In all focus groups, perpetrators were almost exclusively portrayed as unknown males by both girls and boys. Alessia referred to cyberbullies as follows: "you could give him a photo of yourself (...) And he could post it somewhere". Nuncio referred to hackers as males "it could be that if you add him, he can hack you". It was only on a couple of occasions that the participants considered the possibility that perpetrators could also be females, and this was an afterthought, thus reinforcing the consistent finding that perpetrators were often thought of as deviant males. Giada claimed that "there's something Pando on Facebook, you can't accept him. He's a hacker". After pausing for a short while, she considered the possibility of the hacker being female and retorted "Or she's". Apart from gendered stereotypes related to perpetrators, there were also a few instances where children used racial stereotypes to refer to perpetrators. Gabriele argued that it was risky to speak to people in other countries, particularly Arabs: "for example, Arabs have a culture that's different from ours, and so they might also have a way to hack as well".

Media Shapes the Understanding of Risks. The role of media in shaping how children understand risks became evident through discussions of talking pets' applications. Talking Tom, Talking Angela and My Talking Angela are apps that involve adopting a virtual pet. Those who download these apps can take care of these kittens by feeding them and clothing them. The pets also repeat anything that they hear. These apps were mentioned in all the focus groups with children aged 9 to 10 years, probably because this age group is the target audience of such applications, and also in the mixed focus group of the older cohort. Mentions of these apps was always accompanied by controversy. Some of the children claimed that these apps were used to monitor children and get information about them

because the pets had a camera in the place of their eyes. Once again, children's recounts of the consequences were rather extreme. Murders were also mentioned. Nuncio relates: "I had a friend, who said, that her cousin, had this game, emm...because of the camera, ...found where she lived, they went there, and killed her". Giovanni also mentioned that the game was dangerous because of a man who "if you are in the same country as him... he comes to kill you". Other children claimed that this depended on which app was used because there were different versions of the app while some others flatly refuted these claims. As Giulia explained, "I have MY (*emphasis by participant*) Talking Angela, and they always tell me this, I look into her eyes but I see nothing".

A possible reason why these apps were mentioned is some news items (such as the one in Appendix 12) referring to some false reports about them. Marta mentioned "they had got it on the TVM news... they said this game is not appropriate." Media can influence which risks are easily accessible because of the availability heuristic and the representativeness heuristic (Breakwell, 2007). The role of media in shaping the understanding of risks is also evident in other instances in the focus groups. Participants mentioned "hearing of incidents" and things that "did not happen in Malta", possibly reflecting the globalisation of news items. Sheila related an anecdote about blackmail she saw on TV, yet she did not specify whether she had seen this on the news or in a movie, but the details she gave seem to indicate the latter.

SHEILA: You dress up like the mail man or the pizza boy or the pizza man...

UP6: Aha and they threaten you

SHEILA: and they trick you so they say, (...) I'll wait for you so you can get your money. And you just drive her crazy till you... you get what you want

R: OK

SHEILA: And like you... I'm... I'm being honest you know... because I just saw it on TV this.

Rules and ‘Adult-Talk’. Children referred to some unwritten or assumed rules relevant to online behaviours, such as: “to be protected, they should always ask their parents before [doing anything online]” (Kelly). Children explained rules related to friending or adding people on SNS, and also ones related to chatting. The latter included ascertaining that they really knew the person whom they were talking to, being careful whom to talk to and not talking to strangers. When participants claimed they spoke to or played games with strangers, they also explained what rules they abided by. As Andrea explained, “if there are people that you don’t know, you [should] be careful of them and not tell them some personal things”. Gabriele claimed that he did chat with strangers, but that “if I see that they are not chatting OK with me, I stop”.

Another way in which anchoring was evident was from how participants expressed themselves in a way that mirrored how adults talk. It is possible that these rules are taken up from the adults around them. Some examples of this ‘adult-talk’ were evident in how children spoke of “nowadays” and compared the present-day technological affordances with “the past” even though they are too young to remember this themselves. Claudia mirrored her mother’s words that a regular phone with the basic functions of texting and calling “is fine”, despite making it clear that she would have liked a to have smartphone. When discussing the possibilities of photo-editing and the problems it could cause to children, Francesco explained: “because nowadays, with the technology we have, you can do anything. And you can make it look well [appear real]”.

A Sense of Helplessness. At times, children seemed to lack valuable insights about how things work online and the consequences of their online behaviours, indicating that their media literacy skills were not adequate for the experiences they were having. Nuncio thought that for each and every video uploaded, there was a reviewing board that assessed whether specific videos were adequate for children. He explained: “There’s like a board... that sees what’s there on the internet, and for example, they say: *This video is not good for kids of this*

age group". Jeannette indicated that she does not have enough knowledge about buying apps and mistakenly thinks that WhatsApp would use up her phone credit if she had to pay for it.

Filling in the gaps can make risk more relatable or less threatening. However, this function of social representations might be adding to children's confusion. The findings by Conway and Hadlington (2018) confirm that anchoring cybercrime in terms of traditional crime often led to gaps in their knowledge and unclarity. It is possibly why participants sometimes felt that in the online space things happened magically and that there was little they could do to safeguard themselves. Participants expressed a sense of helplessness and disempowerment in relation to their online experiences, particularly if they thought that online things just happened. Occasionally participants considered themselves as naïve because of their age, which might also make it difficult for them to feel empowered. Alannah described the difficulty of untangling oneself from a bullying situation, because "it's not easy to get away". Arianna referred to the fear of the consequences of reporting someone online. This sense of helplessness could be related to the finding that fear often blocks action when facing risks (Breakwell, 2007).

Children seem to be making sense of risk by filling in the blanks or piecing information from different sources together. While this could be due to insufficient digital literacy skills, it could also be related to the child's cognitive development. Irrespective of the reason, these gaps in knowledge that result in embellished stories hinder the children's ability to properly assess risk. At times children underestimate what is risky, but in these cases, it seems that children are blowing risk out of proportion and have heightened fears of being kidnapped or killed. In other circumstances, when they act on stereotypical beliefs, they might be unable to assess who could be a danger to them. What children seem to be saying is that the internet is a mean magical machine and that they as children are powerless in comparison. This could dampen their openness to exploration and experimentation, and also make them

feel rather disempowered to act when something happens, because of the irrational fears and unfounded beliefs that take over.

Theme 4: Perceived benefits supersede concerns

When participants discussed what they found enticing in new media, they also recognised inherent problematic issues. Yet, it seems that when the activity in question was something they enjoyed, children still dared to carry on with it, irrespective of the possibility of it being unsafe. This theme corroborates Youn's (2005) findings that benefits perceived are more important than the risks perceived when understanding children's online risk behaviours. The affect heuristic might be impacting children's risk perceptions.

An Opportunity for Connections. One of the aspects children found rather attractive was the possibility of connecting to others. Several games have the possibility to add friends to one's profile to play together and chat. Sometimes they chose to add whoever sent them a friend request irrespective of whether they knew the person or not, in order to have friends with whom to play. Participants often acknowledged the danger in this but tried to find ways to manage the issue. One such strategy described by Lucia and Giada was to not include a photo on their profile, thinking that this made it safe to add anyone. This is also another way children fill-in-the-blanks to make risk more understandable.

LUCIA: I play RoBlox, but RoBlox I accept everyone 'cause like you'll be less... like a character, like and... you don't need to show your face

GIADA: They can't see you

R: OK

LUCIA: So... And I accept everyone, 'cause sometimes, like... my friends would not be online, so like... if someone will be playing my game, aw... a game that I like... so I like... I just join them.

The opportunity for connection that RoBlox provides Lucia with, supersedes the risk of adding strangers and the children justify their behaviour because they used a misguided solution of not adding a profile picture.

Justin explained his distress when he had to deactivate his Skype account because of someone who was persistently calling him. He had to remove Skype from his tablet but reinstalled it on his phone. Justin claimed he “felt worried” but when probed to explain why, he specified he was “worried...because...I removed [lost] my followers...who were like most of them friends”. It appears that he was more distressed he lost all his connections rather than because of the harassment incident.

Participants seemed to recognise the danger of accepting strangers as friends but were also aware that their peers probably did it for the benefits attainable from increasing their number of friends, such “to get likes” on their profile. This danger was also acknowledged for chatting with strangers. While most participants steered away from this, Gabriele did not. However, he still acknowledged the potentially problematic aspect of his behaviour and proceeded to explain how he “checks their profile and looks out for anything suspicious when talking to strangers”.

The pressure to join social media was discussed in all the focus groups with younger children. Jeannette explained how she badgered her mum to set up a Facebook account because “almost everyone has it”. Similar discussions took place about WhatsApp and the internet in general. Children wanted to be like their other friends and have access to these communication tools to not feel left out. Some expressed frustration at their friends for not being up to scratch with using these tools. Jeannette complained about Giulia because whenever she sent her a message through WhatsApp, she never saw it.

Some of the accounts from the girls’ discussions seem to indicate that particular social media activities are motivated by their interest in exploring romantic relationships. Erin relates how one can befriend “a guy who is very good looking” because maybe “someday you

would like to marry him or stuff like that” only to eventually find out it was “a fake profile, it won’t be real”. This portrays the role social media could have in children’s development. They provide the possibility for making connection and exploring with identity and intimacy. However, these are also risky opportunities as they can pose other dangers to children.

The possibility of privacy that SNS afford is also particularly alluring for girls. In the following dialogue, the girls referred to their wish to have their own account, as using a parents’ account would permit the parents to know what they are doing. Even though they did not explicitly state it, the non-verbal behaviour in this account hinted that there was more to this than they were actually stating. The girls might have felt inhibited to share more about the matter because this was a mixed focus group or that they were afraid to share the truth, indicating a limitation of the focus groups.

R: OK. And why don’t you want her [your mother] to see what you do?

SERENA: Because

JEANNETTE: For example, if it’s something private, maybe

R: What is something private, Jeannette?

JEANNETTE: Maybe who knows... you’re messaging your girl friend

SERENA: To organise a surprise for our mothers for example

JEANNETTE: Eh

R: OK

SERENA: Like that, something like that

R: And only this would be something private, or something else as well maybe?

No one replies... some laughter.

Other children used social media to connect with popular people, such as stars on Musical.ly, popular YouTubers, footballers on Instagram or accounts and fan pages on Facebook. Children are lured with the possibility of connecting with their idols. Francesco recounted that sometimes, some accounts of famous footballers are fake. After they get a

large number of friends or followers, they change the account name: “you would have liked it because it belongs to a player or it’s about football or so, or about games, and then... you end up... I mean... they start posting things that we don’t want to see... that are not good for us”. Similarly, Siobhan explained how after adding “stars” and several people on her Musical.ly account, she started receiving “comments that I didn’t quite like”. The allure of connecting to celebrities can expose children to risks if these accounts do not belong to whom they claim to be.

A Way to Satisfy their Curiosity. Children’s curiosity often led them to ignore their concerns and even parental restrictions. Sometimes this curiosity led them to spy on their parents’ or older siblings’ social media profiles whenever they had access. Isabella explained that her sister once told her about a boy who fancied her. When Isabella told their mum about this, her sister did not share anything else about it, but Isabella said: “I try to find out... I stalk her”. At other times, they not only watched videos online but also wanted to know more. As Valentina explained “I enjoy going to the comments to know... know... know what it is”. In Giada’s case, she was using a site to stream *Suicide Squad* a movie rated PG-13 and explained how because of her curiosity, she ignored her mother’s rule:

It has nothing wrong, but it has a lot of wars and I’m... I’m seeing it on 123Movies... there’s a lot of movies, and my mum... my mum doesn’t let me see it, but I’m still seeing it (...) because I am curious what happens.

Internet as a Tool. Children often perceived the internet as being a credible and good source of information. In several instances, children mentioned using the internet to find information for their homework or school projects and to learn more about their interests. Siobhan referred to the possibility that something found on the internet might not necessarily be true. On the other hand, Justin was explaining that the Talking Angela app asks for your bank account and that he “heard it on YouTube... and although not everything is true, I believe this”.

What children enjoy doing online is often fun and can involve learning. Yet, these enticements also hold the potential for exposing them to various contact and content risks. This refers to the concept of risky opportunities (Livingstone, 2008) which describes how opportunities often entail an aspect of risk. The enticements and possibilities for exploration offered by the internet often lead children to dare and experiment with risky matters. However, decreasing the possibility of risks is not a viable solution, since this would also reduce children's access to opportunities. Thus, when children experiment with risk, it would be more helpful if their environment supports their experimentation while also providing them with digital literacy skills. In this way, they would be able to manage risky opportunities without placing themselves in harm's way. This suggestion has profound implications for parents, families and teachers. It is not always the case that children's explorations are sufficiently supported by adults who possess and promote digital literacy.

Theme 5: Knowing with confidence

Children discussed their apprehensions about several risks (Theme 1), but these concerns seemed to co-exist with different elements of media literacy. The previous themes featured children's helplessness when they did not fully understand something, and how they filled in the blanks to help them make sense of risk, which often resulted in unclear understanding of risks. The current theme portrays how children's awareness, knowledge and critical abilities lead them to confidently take specific actions to prevent or cope with troublesome issues online.

Awareness of Risks. Children were mindful of the risks and dangers present online and of the possible consequences such as addiction, cyberbullying, harassment and the risk of suicide. In the older boys' discussions Donal referred to "people who committed suicide" as a result of online bullying. When asked to elaborate on this aspect he continued: "there would be people who stay insulting you and so on and you are keeping everything inside. You're like a balloon, if you keep blowing in air, at some point it will explode". There were no

known local cases of cyberbullying resulting in suicide, which further evidences how children's awareness of risks is shaped by news media.

Participants eagerly shared with others their own knowledge about being prudent when navigating the online world. When Tommaso discussed the option of unfriending and Ivor expressed that he did not know how to do so, Giovanni promptly explained: "you click on their profile, and you make unfriend". Jarlath warned the other participants: "what you don't know, you... you cannot make them friends (...) because you wouldn't... know whom you are mixing with". While the 'unknown' was almost always considered perilous, there were instances where the children also grasped the possibility that someone who was known to them could also pose a threat.

Because it does not necessarily have to be someone you don't know... it could be a friend... your greatest friend and tries to do bad things... he tries to do bad things to you. It would not be that... He wouldn't be someone you don't know. It could... it could be anyone... anyone can do that to you. (Francesco)

Participants were also aware of digital footprints. They discussed the dangers of sharing one's location, but not just. Francesco was aware that when posting something online, the context also provided information to the audience:

Because if you use musical.ly... you take a video and you lip-sync and so on, but you have to check what's behind you. For example, you could have a painting, that is from your grand grandparents [an antique] and costs a lot of money...you have to be careful. They could come and rob you, or do something bad, take all you have in the house (Francesco).

He emphasised that even posts that could be "just for fun", could convey additional information that might lead to negative consequences if it ends up in the wrong hands.

Children explained the negative consequences of sharing, especially when what was shared

reached unintended audiences, also in terms of the permanence of online sharing. Alannah stated that anything that is online “you can’t erase it; it stays there forever”.

Knowledge and Skills. In each focus group, there were participants who had technical knowledge and skills. The way they spoke demonstrated an understanding of aspects such as modifying the search history, security and age-appropriate sites. Serena explained how she uses a child-friendly search engine in order to avoid inappropriate content: “you write Kid-Rex, and like a site made on purpose comes up and if it is not good for children, he blocks it for you”. Sometimes it was their direct experience that taught participants how to be cautious, as in Siobhan’s case, who received comments “that were not nice” on Musical.ly and “because of that now I always put them all private”.

Critical Thinking. Apart from technical know-how, participants also displayed their critical thinking abilities, when they commented on specific issues or about their peers’ practices such as collecting likes. Critical of the practice of collecting likes, Francesco posed the question: “Because then, what are you going to do with the likes and shares you get?” Children also approached media content with scepticism and stated they did not believe whatever they watched on YouTube. In some instances, participants challenged each other with contrasting opinions or downright disagreement, particularly when they discussed making friends online or being careless when adding friends. Alessia commented adamantly: “I don’t really agree with this... that... that you make friends from over the internet”.

Preventive Strategies. As a preventive measure to avoid negative experiences online, participants often mentioned that they refrained from using SNSs, particularly Facebook, and they also avoided posting specific information that could reveal personal or private details. Participants also mentioned their resolve to access age-appropriate content: they used restricted modes, cleared histories and avoided videos with rude words in the title. Desmond explained how “YouTube you put restricted mode on, and... eh... he tries to block the bad stuff for you and so on”. Claudia tried to modify YouTube's recommendations by adding

content that is child-friendly rather than the more adult content her brother seemed to be watching.

...there's this tab, recommended... and my brother, when he sees on the computer, a lot of these stuff come up about all the different things, and I try to fill them up with more kid's stuff, and you know... the recommended, so it will be not be with these things, the pictures will be nice ones, I like to see like... top ten Disney songs...

(Claudia)

To avert negative outcomes, participants who used SNS claimed that they only added real-life friends on their accounts and that they declined request from strangers. When they received phishing emails they ignored or deleted them. Children also mentioned some strategies to check whether a particular app was safe for them to use or whether a person was who they were claiming to be online. For instance, Andrea suggested that when talking to a stranger online claiming to be a child, there was a strategy one could use to check if the person was really a child. "You ask him to send you a photo, touching his ear... his left one with his right hand". He explained that if the person was not really a child, they would not be able to do send such a photo, because "if they go on Google [to search for such an image], there are not many photos like that". Marta was aware that some star profiles on Musical.ly were not genuine and she checked the profile picture and the account thoroughly before adding someone: "even from the followers you recognise [if they are genuine], if for example one has 100 and the other one has 10 million". To ensure games were safe, Ainhoa suggested "if you go on a game, you should read some... some comments of it and make sure".

Coping Strategies. When participants encountered problems online, one of the strategies used to cope with the issues was to discuss it with someone. More often participants took matters in their hands and they deactivated accounts, updated their privacy settings, uninstalled apps or stopped using them altogether. They also blocked or declined requests

from strangers or chose to ignore or not reply when they spoke to them. Participants also deleted or unfriended people on their friends list who behaved strangely.

they are sending... all the time... they are all the time sending things that don't... I...

I...am not supposed to see. They are sending things... qeq that... private parts... and I deleted the account and I didn't go anymore... (Francesco).

To a lesser extent, some participants used confrontational coping strategies such as answering back or else acting out aggressively when playing games. When playing Grand Theft Auto (GTA) Brennan was being asked questions by a stranger: "he came online... and he came next to me... and he asked me "where do your parents live?" "what are their names?" and so on and I had hit him with a car".

While not all the strategies and actions that children used to deal with problematic issues online were always constructive, these findings nonetheless show the importance of media literacy. When children were sufficiently media literate, they were more adept at handling the difficult situations they came across through taking specific actions to deal with or prevent negative experiences. This theme seems to contrast the ones presented so far, and this indicates a possible plurality of children's cognitions about online risks. The current theme indicates that even though online risks can be a threat to children's safety, knowledge can help children manage their own negative experiences confidently. While the media panics refer to real risks, they often exaggerate its nature. Instead, focusing on educating children can be more beneficial especially because children can also help their peers.

Theme 6: Favouritism towards themselves

Some ways in which the children spoke about their online behaviour or the way they claimed to act online conveyed the impression that children had self-serving biases or thought that they could be immune to risks. This perceived invulnerability is also reflected in the way they positioned themselves vis-à-vis others and these self-other stances reflect some of their social representations of online risks. This theme was also discussed in Farrugia (2018).

Partiality Towards their own Risky Behaviours. Children did not consider their own questionable online conduct as problematic. This included talking to strangers, insulting others and violent content. When others engaged in such behaviours, children were quick to judge them, but when they carried out such behaviours themselves, they justified their behaviour. The participants who admitted to chatting with strangers, claimed that this happened only “occasionally” or “rarely”. Ivor said he chatted with his older sister’s friends because they gave him attention and said he was “cute”. This attention is probably the benefit that he attained from the chatting with older people (as discussed earlier in Theme 4) and thus, he did not perceive it as problematic: “I stay chatting with my sister’s friends, but my sister does not let me chat with her friends, and I know them, because they start telling me “you are so cute””.

Some of the participants revealed that they occasionally answered back, got back at someone and insulted back when they were targets of online harassment. While they condoned this behaviour when it came from others, and it sometimes upset them, some participants did not hesitate to do so to others. Conor had no qualms in provoking Real Madrid fans on Instagram, but then he sounded upset that someone insulted him back: “And I went and said: “you’re gonna lose” they had that uhm list... Real Madrid, I told them “you’re gonna lose”. And there was one man he was all the time insulting... insulting”.

A particularly troublesome finding is that some children were very nonchalant about violent content online. They spoke about it as if it was something normal and not problematic. The younger boys discussed GTA 5 and the violence it contains. Tommaso, who was the youngest participant in the group, asked shockingly “is this true?” when the other boys spoke about the violence this game contained in a very matter-of-factly way and even laughed about it. Desmond justified playing violent games by explaining that even though he had been playing GTA since he was 4 years old, he did not think it affected him: “I used to play GTA

San Andreas, a very old one, (...) when I was four years old and I've never seen it affect me". These comments show how some participants felt they were immune to violent content.

This aloofness when faced with violence was not only a characteristic of male participants. Giada described *Suicide Squad*, a film rated PG-13 which she was streaming online, as "nice", despite its violent and gory content: "It has a lot of wars in *Suicide Squad*... it's nice" and later on she continued: "it has nothing wrong, but it has a lot of wars". Participants often laughed when discussing violence, yet this seemed to be a different laughter in comparison to when they referred to sexual content. Rather than being awkward laughter, this sounded more like cheeky laughter, almost approving of the behaviour.

As the above examples indicate, sometimes participants spoke of how they broke the rules or found ways to bypass rules such as age limitations. Donal explains how "Instagram does not ask you" about your age at sign up stage. This loophole makes it easier to bypass the age restriction. Gabriele explained how he gives minimal information when he is requested to give personal details: "I give them something small, I don't give them much... because they can give you a virus, hacks, they can do to you many [things]". Riccardo explained how he set up his Facebook account and "I did [put] 45" when he was asked about his age. To bypass the age restrictions Gilroy said, "I put my father's date [of birth]". It seems that participants were aware of the rule, but felt that it somehow did not apply to them.

Rationalisation and Defensiveness. When rule-breaking or rule by-passing occurred, coincidentally, children often rationalised or were defensive about why they carried out specific behaviour, and this was a common feature in all the focus groups. The excerpts below portray some defensive statements made by participants. Even though Simone who was 11 years old at the time of focus group had been using Facebook since he was 6 years old, he claimed it was "only to play games". Similarly, Riccardo (9) has his own profile but "I use it for games only" and "I never went on it". Norah, after eventually admitting that she did have a Facebook account, went on to say: "I'm not one of those crazy about it *mockingly* "Hello,

hello” ... I haven’t put a photo... I never put a photo (...) it’s been two years since I put a photo. I don’t know the password” as if to rationalise that even though she does have an account, she uses it responsibly.

Jeannette described going on YouTube and seeing pictures and photos [referring to the thumbnail previews] that would be “naked for example” and then immediately retorted: “I’ve never seen them” implying that she does not watch such videos. Giada explained that she only watched YouTube only if it was “appropriate” for her. These ways of rationalising or defending their online behaviour might be considered self-serving biases through which children justify their own inappropriate behaviours online as Conway and Hadlington (2018) found.

Others are at Risk. The self-serving biases children might have, are also evident through the way they spoke of others as being more at risk. Children often used a judgemental tone when discussing some aspects of their peers’ behaviour online. For instance, children used several negative adjectives such as “bad”, “not nice”, and “not good” to express their opinions about peers accessing inappropriate content. They also expressed disdain at peers who collected likes and referred to adding as many friends as possible as being careless. Nuncio argued “you shouldn’t add friends like that carelessly, because if you don’t know him...” – hinting at the potential danger of befriending strangers. They were quite critical of such behaviours and commented that they would only “add friends to see who has the most” (Francesco) and that this was dangerous.

Another aspect present in the data is the way children assigned responsibility or classified behaviours as responsible or irresponsible. Andrea explained that a negative experience online “could be your fault” as a result of sharing information. As a strategy to stay safe online, Arianna suggested being “responsible” and she explained that this meant: “if I do not know him, I will not go and just friend him”.

While they did sometimes consider their own naivety, they also expressed concerns for their own peers who could come across troubling issues online such as when playing the game 5 nights at Golden Freddy's. Giovanni expressed concern that due to the scary nature of the game, "some of the kids, they do not sleep because they play it". Similarly, Kevan warned that "if the kids are on... I don't know... Facebook... they add someone whom they do not know... umm... that someone can send them some virus or some bad thing that can damage the computer". When referring to 'the kids' children seemed to be distancing themselves from them, rather than acknowledging that they were their peers. They did not seem to consider that they themselves were as susceptible to these risks as their friends.

Participants also treated younger children as more vulnerable than them and they often adopted a protective stance in their regard. Siobhan explained: "I think children my age and those younger than me should be careful of cyberbullying". Jacob who was 11 years old admitted to playing GTA, which is rated 18+ and involves violence and sexual content such as going to strip clubs. However, he does not play it when his 2-year-old cousin is visiting in order not to influence him: "when my cousin visits, he is like 2, for example what I say, he always repeats, so I don't play it". While Marta acknowledged she is still too young (11), she also referred to younger children being less mature in comparison to her age group thus alluded to their increased vulnerability: "we are young, but if she is younger (...) she would not be as mature as we are". Here Marta is claiming children her age are more mature than their younger peers, despite being only 11, and "an innocent girl" would not know that she should not share personal information online.

Participants often referred to older children as being more knowledgeable than them. However, they also expressed jealousy for the privileges they enjoyed and seemed to expect that they should be treated similarly. Valentina was jealous of her 13 year-old brother because her mother did not check on what he did online, while she checked what she did: "to my brother she doesn't check, and to me she checks". Later Valentina explained that she was

hiding her Musical.ly account from her mother, and her friends commented that she posted a considerable number of videos. This is another instance where participants felt that different rules should apply to them.

The Internet can be Cheated. Children also seemed to believe that it was possible to cheat the internet. As already mentioned, providing fake information and dates of birth or lying online were commonplace behaviours. This could also be another form of the self-serving bias or it possibly indicates lack of awareness about the traceability of online behaviours. Older boys also spoke of installing Mod Menus (which are small programs that change the way a game works) to modify GTA to their advantage such as to “give them cars, change number plates....” (Desmond) which could be contributing to their perception that they can easily find way around online rules.

The manner in which children spoke about the internet or platforms such as Google sounded like they personified and attributed sentient qualities to them. When referring to a game they say “it controls you” or how Facebook “he wouldn’t know” if you lie about your age. When you don’t know something you “go ahead and ask Google” and “it gives you answers” and various applications “tell you” things. This domestication of the internet was evident in all the focus groups and it could be one of the reasons why children feel they can cheat it, because they consider it familiar.

Theme 7: The family: Multiple and contrasting roles

This theme describes the different and often contrasting role that families had when accompanying the research participants when they are online. On the one hand, most families took on a protective role and mediated the child’s activities using different modes of mediation. At the same time, some parents sometimes gave children mixed messages through the way they used the internet or online devices themselves or how they gave children access to SNS or inappropriate content.

Providing Support. Children in all the focus groups explained that they turned to their parents when they needed help online. Children explained that their parents knew what apps they were using, sometimes accompanied them while they were online and that they sometimes carried out online activities together, such as researching upcoming family trips. Some children also said that their parents knew their passwords and that they spent time teaching them about the internet. Grady explained that he seeks his father's support to avoid making mistakes: "Because sometimes, when I think I'm making a mistake (...) I ask my dad".

Children considered adults as experts, more knowledgeable and as reference points, and did refer to them when they needed help. This helped them feel safe online. Arianna explained that she felt safe online because of her mother's involvement: "I have Messenger, she [my mother] checks it for me as well... Facebook... she checks it for me ... I mean she checks everything for me. I know I am on the safe side". Siobhan was using Musical.ly and when she started receiving inappropriate comments, she sought her mother's advice:

Because when I had Musical.ly. Because I had it the first time, when I had Musical.ly, I had started adding, for example some stars and so on, that would be... and after it was like everyone trying to add you, you always add, add, add, and... there were... there were some comments that I didn't quite like. I told my mum and she said, "better delete it". (Siobhan)

Seeking parents' support was mentioned by several participants as a way to stay safe online. Some participants also explained that they encouraged other family members (cousins) and friends to seek their parents' advice when they were using the internet and came across situations that they did not know how to handle. This reinforces the expert status children assigned to parents. This shows that apart from trustworthiness, expertise is another aspect of the mental model (Breakwell, 2007) children have of parents. It is encouraging that children attribute expertise to their parents, but this does not imply that all parents help their children.

It could be that some participants' parents were not able to help, them and the children did not speak up. Sometimes children expressed disillusionment when parents did not act according to the expertise that they attributed to them. Jeannette referred to her father as having a "bad habit" of adding strangers to his Facebook. Children also felt disillusioned that some other adults did not have children's best interests at heart. Francesco was disappointed that at school "they could not be bothered" about bullying situations and Declan explained that if a child went to buy a game rated 18+ the vendor "would still sell it to you [to the child]". This shows how children want to be able to refer to adults for help and support about being online. Yet, children themselves realise that not all adults are able to provide them with this.

Rules and Limitations. Apart from these enabling mediation strategies, some parents also engaged in more restrictive forms of mediation which included checking children's accounts and what they posted, setting rules about watching or engaging with specific (often age-inappropriate) content, setting rules about the use of SNS, and punishing rule-breaking. Alannah's father made it a point to check her and her brother's profile: "every once in a while, my father checks... ehm... goes into my profile and checks what's going on, even my brother's". Some children were not always happy with this type of mediation, particularly when these involved checking what they were doing online or when parents treated their older siblings differently. Jeannette explained she was allowed to use her mother's messenger, however, she did not like this, because her mother could check what she was doing and she explained that if it was "something private" she would not want her mother to know about it. Valentina also did not like her mother checking on what she did online, and she explained that this bothered her because she did not want her mother to discover she was using Musical.ly.

Sheila's mother set rules about what Sheila could watch online and when she ignored these rules, her mother demanded that Sheila abide by these rules or there would be consequences to such behaviour:

...my mother came and watched it, she told me... “see that you don’t dare to see it again, because you get” ... what do you get? “You’ll stay at home for a whole week (...) You don’t go out with friends. You won’t use your phone for a week”.

Children’s contributions to the focus groups indicated that mothers often assumed the role of setting rules and limiting online behaviours more often than fathers. Fathers using restrictive mediation strategies were only mentioned occasionally only in three out of 6 focus groups, in comparison to this role being taken on by the mother which was mentioned in all focus groups and in several instances. Mothers seemed to be more involved in mediation practices while fathers often helped children with practical matters, such as providing help with research or technical support as Giovanni explains:

my dad tells me (...) on the tablet, or tablet this key to sign into your profile and I go to ask my father, I tell him “what do I press for this one, decline or accept?”, because he, he almost knows. (Giovanni)

Mixed Messages. Families sometimes take on contrasting roles. In Norah’s case, her mother was aware of the age restrictions for Facebook but created an account for her. She knew her password, checked her profile, was aware of what went on, and helped Norah where necessary. Initially Norah did not admit that she had a Facebook account. It was only halfway through the focus group, and after she once again asked the group to re-commit to the confidentiality agreed upon at the beginning of the focus group, that she admitted she had a Facebook account. Norah explained how she felt caught in a double bind. She did not like admitting to having a Facebook account against the rules, for fear that her mother would tell her off, but then she felt guilty if she lied about it.

NORAH: Even though for example they tell us “rules are rules”, there will still be some children who will have it [Facebook]. Now I, I feel guilty that I did it as well.

R: You feel guilty that you did it

NORAH: But then after

R: Why do you feel guilty?

NORAH: Because even for example, even for example some people ask me, I feel like... when.... for example, I... I was going to tell you no [that I don't have Facebook], but after I feel guilty because I would say, I lied.

R: OK

NORAH: But after, if I tell... for example if I tell my mum that I told you, I'm afraid that my mum will be angry at me.

This was not the only occurrence. There were other children who said that their parents set up SNS profiles for them. This means that parents helped children bypass age restrictions. Marta told the group that her mother set up her Facebook account and also followed what she did there: "My mum knows everything, including all the passwords. She had set up my Facebook". While following children on their SNS profiles is a positive aspect of parental mediation, it might also be sending mixed messages to children about bypassing rules and it could be modelling inappropriate online behaviours.

On the other hand, even though to a lesser extent, families were sometimes the ones that exposed the children to risks. Often parents allowed their children to use their devices or their SNS accounts. Jacob for instance used his mother's Facebook account to play, and while this is not necessarily dangerous, it can be still considered questionable as children can have access to all the content of the adult's profile. Eventually Jacob went on to set up his account as he enjoyed the games. Conor, a nine-year-old boy explained that his father was a gamer, and it was his father who gave him a game rated as suitable for over 18 years: "My father gave me Hitman because he plays". Although this was an isolated incident in the focus groups, it might not be the only instance, given that the generation who grew up with video games and consoles are now becoming parents themselves.

Another way in which parents made children liable to risks is when they used technology as a child-minding technique, even though there were only a few occurrences of

this. Ivor explained that after his mum created his Facebook account so that so he could speak to her when he and his sister were alone, he then started using it for games and chatting:

IVOR: I had made it when I was 6, as she told me: “make a Facebook so that when...”

R: Who told you?

IVOR: My mum... “so that when you are with your sister, you talk to me and so on” ... and then she made one for me, and then I started playing and then I added a friend from my other school and I used to stay chatting with her.

Grady sounded dismal when he disclosed he is a latchkey child and even though he mentioned asking his dad for help, he expressed disappointment when he has no one to ask for help from when he encountered problems online: “If I’m alone I wouldn’t know what to do, because sometimes, they leave me... they leave me... they leave me home alone almost every day”. Apart from not having anyone to seek help from, Grady’s comment portrays how some parents use technology as a child-minder. While it is unreasonable to expect parents to be constantly with their children when they are online, leaving them with unsupervised access to technology can be problematic. Children can encounter risks without having anyone to turn to for immediate support.

Siblings Exposing Children to Risks. Within families, siblings also sometimes exposed children to online risks. Often this was age-inappropriate content that was of a sexual or disturbing nature (such as horrific or frightful scenes). Aileen got the idea to watch scary movies from her older sister. In another instance, Sheila explained how her sister tricked her into watching a sexual video online.

She [my sister] told me that I would watch it if I can... and she told me come next to me so we can watch it together ... I went slowly slowly... I thought we were going to watch Barney with my little dog... And all of a sudden, she just clicked on this film that I told you about... and I saw... these people my goodness doing... *pauses*... this I mean... I can’t do it... I can’t say it [referring to sexual scenes]. (Sheila)

Apart from exposing children to inappropriate content, siblings sometimes also modelled negative ways of dealing with online situations. Sheila was being harassed by a boy who was telling everyone they were dating. After telling her sister about this, Sheila explained that her sister “came [online] and told him a bad word”. Although she sought support from her sister, the solution her sister provided was not ideal as it neither solved the problem nor taught Sheila how to manage the situation constructively.

While families are often a safe space and source of support for children, families can also be an environment where children sometimes get mixed messages about dealing with online situations. This might be an indication of the uncertainties that parents face when supporting young children online, even more so when within the family there are children of different ages and different personalities which would require parents to adapt their mediation strategies according to their children’s circumstances.

Limitations

Despite the many benefits of focus groups, there are also some limitations pertaining to this method and some are related specifically to this research. These will now be presented together with ways in which I tried to counter these limitations. As a qualitative tool focus groups are inherently not intended to be representative of the whole population. However, this does not exclude the possibility of using findings from this tool to understand more in depth how this age group make sense of their own online experiences.

Apart from the parents who consented to the research, some parents did not give their consent. This introduces a form of bias in the data collection because some of the children’s experiences go unrepresented. Another bias could have been introduced by the way the school selected children for participation, particularly if the schools chose those participants whom they thought would be the ‘best ones’ to take part in the discussion. Although I tried to be involved in the selection process by using a ballot system (as was done in 2 schools) with all the children whose parents consented, this was not always possible. In 2 of the 6 schools, I

was presented with the focus group participants upon my arrival. In another school, I was told that only those consent forms were received.

During the discussions, some children might have felt uncomfortable sharing specific aspects of their online experiences as was about to happen with Norah in the younger girls' focus group, who was initially uncomfortable disclosing she had a Facebook account despite being underage. There could be several reasons for this social desirability bias. Children might not have felt they could trust the group or me enough, especially if they considered me to be in a position of power. The school context might also have been a hindrance to children fully expressing themselves, especially if they misconceived my role as one who would be reporting back to the school. To counter this, I often reminded participants that the discussion was confidential, that my aim was to learn from them, and that there were no right or wrong answers. To counter the effect of groupthink, I used the pre-focus group sheet to help crystallise the participants' thoughts and also reminded them they were free to share differing opinions and disagree with the group discussion.

When preparing the questions, I kept the language as simple and neutral as possible to ensure not to bias the participants' responses through the way the questions were asked. Nonetheless, one of the limitations of focus groups is that the time spent with participants is limited, and the limited amount of questions might have not included the full extent of their experiences. In 5 of the focus groups, the main language used was Maltese, while the participants preferred to use English in one of the focus groups. As expected, there was also some codeswitching in all focus groups. I coded the data using English, and thus I had to ensure that the participants' words were coded according to the codebook prepared in the coding process to avoid translation errors. Another limitation that is related to the coding and data analysis processes can be due to my own biases and perceptions. I tried to bracket my own position presented in Chapter 3 as much as possible to safeguard the children's voice throughout the research.

Being a female could also introduce another limitation to the participants sharing their experiences freely. Boys might have not felt comfortable sharing their online experiences with a female researcher, especially if these related to inappropriate online content or pornography. I could have opted for a male co-leader to counter this issue. However, from previous experiences, having two facilitators can make the children feel less at ease, and thus I opted against this, but paid attention to establishing a safe and trusting environment, particularly during the boys' focus groups.

Rigour and Trustworthiness of the Research Process

Although the concepts of reliability and validity are not always considered adequate for qualitative research, this does not absolve the qualitative researcher from being thorough and transparent, as a minimum during the data analysis (Welsh, 2002) but ideally throughout the whole research process (Crawford et al., 2000; Tobin & Begley, 2004). In 1985, Guba and Lincoln introduced the notion of trustworthiness as a non-positivistic alternative to reliability and validity to ensure rigour in qualitative research. Trustworthiness ensures that the researcher's decisions are evidenced thoroughly so one can judge the quality of the research. Trustworthiness is achieved through a set of four criteria related to the credibility, transferability, dependability and confirmability of the research. Rolfe (2006) argues that the diversity of qualitative research necessitates more than following a set of criteria. The researcher also needs to adapt these criteria to the specific research project. Thus, notions of rigour are not rejected but incorporated within the epistemology and the aims of the study (Tobin & Begley, 2004). Several authors have elaborated these four criteria and how to put them in practice (e.g. Koch, 2006; Shenton, 2004; Crawford et al., 2000). The following sections explain the decisions I made to authenticate the rigorousness of the research process for the focus groups study.

Credibility

Shenton (2004) lists several practical suggestions to establish credibility. In this phase, credibility relates to how the research process is truly relevant to understanding children's representations of risks in new media. The relevant suggestions proposed by Shenton (2004) were taken into consideration for the research at hand. When considering the data collection method, focus groups were chosen not only for their relevance to the study, but also because they have been utilised in comparable research projects with children, such as in the qualitative phase of EU Kids Online (Smahel & Wright, 2014). Being part of this research team, I am also familiar with the culture of the research participants. This familiarity and the possibility to conduct focus groups in schools allowed for a prolonged engagement with participants and trust could be established easily. While 8 child participants in each focus group was not an ideal number to manage the focus group discussion smoothly, having many participants also contributed to the study's credibility, because there were more sources of data. Establishing preliminaries, ground rules, obtaining assent and the pre-focus group sheet were all measures aimed at making the participants comfortable in the research setting and to encourage honesty.

Throughout the research process, I also kept a reflective journal where I recorded my thoughts and decision-making processes to ensure ongoing self-awareness (Koch, 2006). As part of this journal, immediately after finishing each focus group, I wrote my reactions and comments about the discussion to record any thoughts and observations that might be relevant to the research and analysis.

Credibility is also ascertained when saturation point is attained, and no more new data is generated when adding further group discussions (Lunt & Livingstone, 1996). Choosing to conduct 6 focus groups was initially a pragmatic decision since only six schools accepted to participate. However, by the fifth discussion it became evident that no new concepts were

emerging (Morse, 1999), thus reaching saturation point. I felt comfortable ending the data collection after the sixth focus group.

Checking the findings with the participants can be another means of establishing credibility, but it was logistically impractical to ask the participants to hold another discussion about the findings. Thus, to counteract this limitation, I ensured that I was paraphrasing and checking my understanding during each discussion itself.

Transferability

One way to establish transferability is to use a research process that fits the research aim (Koch, 2006). Focus groups were deemed appropriate for the second study because of children's familiarity with the topic and the possibility of accessing shared meanings as detailed in the first section of this chapter. Focus groups are a space where social thinking can be accessed, because the group's collective and subjective aspects of their norms, beliefs and values are brought to the fore (Gruev-Vintila & Rouquette, 2007).

The reader can also evaluate the transferability of the study from the contextual information provided about the participants and the data collection. Although the findings from this qualitative study might not be transferable to all children or have statistical significance, the raw and authentic data provides in depth information and provides what Grover (2004) refers to as "social significance" (p. 86). In depth exploration of children's lived experiences gives children the possibility to present their own views about matters that concern them.

Dependability

Dependability is parallel to reliability in quantitative research. This notion can be problematic in qualitative work, as establishing reliability can interfere with the interpretative processes involved. For instance, I decided to be the sole coder for this work, given that I had done all the background reading and was immersed in the data. I felt that this would be the best way to do justice to the participants' experiences, as a new coder would not have my

same background (Morse, 1999). Aiming to establish inter-coder reliability could have resulted in a superficial interpretation of the data. Since qualitative research focuses on the participants' subjectivity and the multiple constructions of reality, multiple coders might not arrive at the same conclusions (Rolfe, 2002) and to establish criteria for coding would imply imposing a specific interpretation of the data.

Reliability coding is when an important moment in the data is coded in the same way consistently. When the data were first annotated and then coded, the annotation and coding matched. Even though I was the only one coding, this can still be considered as a form of dependability.

Another measure of dependability requires that the participants' subjective viewpoint is maintained and that data is not invented, misrepresented or incorrectly recorded (Carcary, 2009; Fereday & Muir-Cochrane, 2006). Using NVIVO helped me remain as close as possible to the participants' own words. Excerpts from the focus group discussions were presented together with the themes, to help the reader contextualise the findings.

Presenting a decision trail is often recommended as the means to ensure credibility. Such a trail describes the theoretical, methodological, and analytical decisions (Koch, 2006) made by the researcher, to ensure that the reader can grasp and check these decisions (Rolfe, 2002). The different stages of research constitute the physical audit trail, while the development of the researcher's thought is the intellectual audit trail (Carcary, 2009). Audit trails are often recommended for qualitative research, and since I was keeping a reflective diary, all the decisions taken throughout the different phases of this work were recorded. These are described in the relevant chapters, and a table with the audit trail for the entire thesis is also being presented in Appendix 13.

Confirmability

The last criterion for establishing rigour requires the researcher to ensure that the analysis is grounded in the study's context and that any interpretations provided are logical

and close to the participant data. I was aware of and explicitly stated my position (Shenton, 2004) to ensure that this does not impact the decisions made and the interpretation of the findings. Nonetheless, complete objectivity in qualitative research is neither possible nor expected as the researcher is an integral part of the research process. Cutcliffe & McKenna (2004) argue that the focus should be on the 'fit' and 'grab' (p. 128) or how useful the study is, rather than targeting objectivity. Thus, the analysis of the findings is as close as possible to the participants' own words but also informed by the literature referred to. I understand that ultimately, it is the reader's appraisal of my qualities as a good researcher (Rolfe, 2002) that can really establish whether I was sufficiently rigorous in carrying out this work. The measures presented in this section, together with the decisions taken that are presented throughout the work and the audit trail in Appendix 13 aim to establish that trusting me as a researcher is indeed warranted.

Conclusion

Children's cognitions about online risks reflected awareness and perceptions of these risks that were derived from different sources. It seems that what children learn from their own experiences of these risks, from peers, family members, the media, together with what children like to do online and their own biases bring about varied cognitions despite preadolescents being in the same age group. This lay thinking about online risks has practical value and points to the process of representation; and the intra-group differences warrant further exploration.

CHAPTER 6

**PHASE 3 – LATENT CLASS ANALYSIS
EXPLORING INTRA-GROUP DIFFERENCES**

Chapter 6. Phase 3 – Latent Class Analysis: Exploring Intra-Group Differences

The findings from the first two phases show that children had a widespread and frequent access to the internet mainly from their own home, in their own room and using portable devices. Children did several things online, with the main activities being playing games, school work and watching videos. In these contexts, children were conscious that online risks exist and they can be dangerous. The use of SNS increased with age, and around 4 in 10 children claimed to have invented a date of birth. Only 1 in 5 children considered the internet to be safe and this negative perception was also evident in the focus group discussions. Technical risks were considered more dangerous than non-technical ones. Fewer children had experiences of non-technical risks, but several had experienced technical risks, mainly viruses and pop-ups with material that made them feel uncomfortable.

Often when children had negative experiences themselves, they were very knowledgeable about specific risks. However, not all children had sufficient information about online risks, and children filled in the gaps they had in several ways, such as through what they learn from parents and from the media. Moreover, children's thinking about online risks seemed to be impacted by self-serving biases, namely that they are immune to online risks, and this was especially so if they perceived attainable benefits. However, some other children seemed savvier than others, and were more confident online.

The survey findings provide specific insights into children's online experiences and their risk experiences. The focus groups add more depth to these insights by bringing to the light the variety of cognitions that children hold about online risks and also the diversity in how they experience these risks. Although there are commonalities in children's experiences,

these intra-group differences could be based on specific characteristics. Further exploration of this is possible through the pragmatic paradigm adopted in this research. The survey data presented in Chapter 4 contributes greatly to understanding the online experiences of children aged 9 to 12, and thus, it was decided to investigate these differences using the survey data. In the first part of this chapter, the survey data was explored with the aim of identifying whether any groups or categories exist in the data. Four distinct groups were identified. In the second part, these categories were presented to children to investigate whether children would associate themselves with these categories with the aim of corroborating the four categories identified.

Part 1 - Latent Class Analysis of the Survey Data

The survey data was analysed using Latent Class Analysis (LCA). LCA provides a way to report about the “unobserved heterogeneity” (Jung & Wickrama, 2008, p. 303) in the population for categorical variables. It classifies respondents into groups (the latent classes) according to their response patterns on a number of categorical variables (the manifest variables). LCA categorises participants into classes and the categorisation is based on the premise that individuals belonging to one class would be more similar than the ones in other classes, which could have implications for interpreting the findings. LCA estimates the size of each class together with the probability for each participant to be in each class. In this case, LCA was used to understand whether children can be classified according to characteristics which emerge from the responses to the questions chosen for the analysis.

The items from which the latent classes were extracted were those items in the survey that were considered directly related to risk. These 27 variables, presented in

Table 21 had a binary response (Yes/No). Specifically, these variables were the questions from the survey focusing on children’s risk perceptions, risk experiences, skills and safety measures used. Variables 1 to 8 from Question 15 investigated the children’s

perceptions of risk, while variables 9 to 16, from Question 18, dealt with actual experiences of risk online.

Table 21

Manifest Variables

Variable Number	Statement	Question Number	Related to
1	It is important to use privacy settings	15a	Perceptions of risk
2	The internet is a safe place for children their age	15b	Perceptions of risk
3	It is safe to meet new people over the internet	15c	Perceptions of risk
4	I would be willing to meet someone over the Internet	15e	Perceptions of risk
5	There are no risks when posting photos of oneself on a social network	15d	Perceptions of risk
6	It is fine to post things publicly on social networking sites	15f	Perceptions of risk
7	I am not worried about the personal information there is about me on the Internet for others to see	15g	Perceptions of risk
8	Others may post photos of me without my permission	15h	Perceptions of risk
9	Virus	18a	Experience of risk
10	Hacking	18b	Experience of risk
11	Content that is inappropriate for my age	18c	Experience of risk
12	Contacted by strangers online	18d	Experience of risk
13	Pop-ups	18e	Experience of risk
14	Unpleasant or inappropriate comments on the internet	18f	Experience of risk
15	Unpleasant or inappropriate pictures on the internet	18g	Experience of risk
16	Unpleasant or inappropriate videos on the internet	18h	Experience of risk
17	I know how to block message from someone I don't want to hear from	22b	Skills related to the internet
18	I know how to find information on how to use the internet safely	22c	Skills related to the internet
19	I know how to change privacy settings on a social networking profile	22d	Skills related to the internet
20	I know how to delete history of sites visited	22f	Skills related to the internet
21	I know how to change filter preferences	22g	Skills related to the internet
22	I have set auto lock with password on mobile, computer or tablet	23a	Safety measures employed
23	I set privacy settings so only friends see what I post	23b	Safety measures employed
24	I asked someone to remove a post with personal information or photo	23c	Safety measures employed
25	I have removed personal information included in a post	23d	Safety measures employed
26	I use different passwords	23f	Safety measures employed
27	I turn off or disabled cookies	23g	Safety measures employed

These 16 variables reflect children's attitudes towards risk and their experiences of risk. Variables 17 to 21 from Question 22, asked about skills related to the internet, while variables 22 to 27 from Question 23 asked children whether they employed safety measures. These factors reflect children's abilities to manage and cope with online risks. These questions were chosen because during the focus groups, it was observed that even within the same age group (9 to 10 or 11 to 12), children had different perceptions of risks, risk experiences and levels of skills.

LCA also used the covariates presented in Table 22 in order to find a fitting model. These included the number of devices children used to access the internet, the time they spent online, the types of accounts they had, whether they had invented a date of birth, their age, gender and whether they had seen the logo of the local SIC. They were chosen because they were considered possible factors which could predict children's behaviour with respect to risk.

Table 22

Covariates

Covariate Number	Description	Question Number
1	The sum of the devices ticked.	7
2	Amount of time spent online during weekends	10
3	Amount of time spent online during week days	9
4	The sum of general accounts chosen. Facebook, Twitter, Skype, Google/Gmail/ and Ask.fm were considered to be general accounts	12
5	The sum of picture accounts chosen. Tumblr, Pinterest, SnapChat and Instagram were considered as picture accounts.	12
6	Asked whether the child used an invented date of birth online	13
7	The number of game accounts each child had. ClubPenguin, MiniClip, PlayStationNetwrok, MSN/XboxLive and ClubNintendo were considered to be game accounts.	12
8	Child's gender	1
9	Child's age	2
10	Whether the child had seen the BeSmartOnline! Logo	24

The number of devices used, the amount of time spent online, and the number of picture, game and general accounts were included because a higher value for each of these would indicate more activities carried out online, and possibly more exposure to risks. Inventing a date of birth online was chosen because it often indicates that the children have used SNS. Moreover, awareness of the Besmartonline! logo was chosen as it could indicate children's exposure to safety messages. Age and gender were included to understand their role in any differences identified among children.

The LCA model

The **poLCA** package from the **R** statistical software was used (Linzer & Lewis, 2011). The binary responses for variables 1 to 27 were the manifest variables which poLCA used to construct a latent class model. The covariates presented above were also included in the model to identify which of these were significant predictors of class membership. The procedure does a regression analysis in order to estimate how these covariates predict latent class membership. The command issued to R is presented in Appendix 14.

Four different models with four different number of classes ($k = 2, 3, 4$ and 5 classes) were re-estimated twenty times and from these twenty trials the one which gave the best estimate of the maximum likelihood was taken. The re-estimation is a measure of good practice so that the analysis is conducted from 20 different data points to ensure that the procedure gives an accurate result. Picking the best out of each set of twenty models therefore resulted in one model for each value of k . Other parameters given by the models were then used to decide which of these would be the final model with the optimal number of classes.

Nylund, Asparouhov & Muthén (2007) reviewed different information criteria to identify the best one for identifying the optimal number of classes. The Bayesian Information Criterion (BIC) was deemed to be the best one to determine the number of classes and interpret the data, as it yields the correct model more consistently in comparison to the other criteria. When the research question, parsimony, theory and interpretability are also

considered, the smallest value of the BIC gives the ideal number of classes (Jung & Wickrama, 2008). In this case, the model was computed with 2, 3, 4 and 5 classes. The lowest BIC occurred with 4 classes (Table 23). The model with 4 classes was selected as the one that fitted the data best. Adding more classes would have given no further insight in understanding how the respondents could be classified based on their responses to the twenty-seven binary response questions in the model. The model with four classes was therefore chosen to be the model on which the analysis will be based.

Table 23

BIC Values

Number of Classes	BIC Value
2 Classes	26792.99
3 Classes	26384.49
4 Classes	25839.45
5 Classes	26309.03

The **poLCA** procedure estimated the population shares of each class which are presented in Table 24. Class 2 had the smallest number of children while Class 4 contained the largest group.

Table 24

Estimated Class Population Shares

Class 1	Class 2	Class 3	Class 4
28.7%	10.9%	21.4%	39.0%

Table 25 below portrays the response patterns for the four latent classes with the twenty-seven manifest variables that were included in the LCA. In this table, for every row (each corresponding to one of the twenty-seven statements), the percentages denote the proportion of respondents in each class who replied “Yes” to that statement.

Table 25*Percentage of Each Class who would Respond 'Yes' to Each Statement*

	Class 1	Class 2	Class 3	Class 4
	YES	YES	YES	YES
Perceptions of risk				
1. It is important to use privacy settings on Social Networking Sites	67%	81%	75%	50%
2. The internet is a safe place for people my age	23%	39%	16%	16%
3. It is safe to meet new people over the internet	14%	19%	8%	5%
4. I would be willing to meet someone I made friends with over the internet	10%	18%	8%	4%
5. There are no risks when posting photos of oneself on a social network	11%	23%	7%	4%
6. It is fine to post things publicly on Social Networking Sites	11%	25%	3%	2%
7. I am not worried about the personal information there is about me on the internet for others to see	11%	24%	11%	5%
8. Others may post photos of me without my permission	8%	15%	4%	2%
Risk Experiences				
9. Viruses	48%	63%	36%	37%
10. Hacking	22%	34%	11%	4%
11. Seen content which is inappropriate for my age	18%	39%	4%	2%
12. Being contacted by strangers online	20%	56%	13%	2%
13. Pop-Ups	55%	64%	41%	26%
14. Unpleasant or inappropriate comments	25%	49%	8%	1%
15. Unpleasant or inappropriate pictures	27%	47%	10%	2%
16. Unpleasant or inappropriate videos	28%	52%	10%	2%
Skills				
17. Block messages from someone you don't want to hear from	50%	86%	58%	12%
18. Find information on how to use internet safety	61%	91%	57%	30%
19. Change privacy settings on a social networking profile	41%	84%	50%	5%
20. Delete 'history' of sites visited	38%	75%	31%	7%
21. Change filter preferences	9%	44%	5%	<1%
Safety measures				
22. Set auto lock with password on mobile, computer or tablet	59%	83%	60%	28%
23. Set privacy settings so only friends see what you post	0%	100%	0%	100%
24. Asked someone to remove a post with personal information or photo	22%	57%	19%	3%
25. Removed personal information included in a post	20%	81%	19%	<1%
26. Used different passwords	54%	75%	48%	13%
27. Turned off/disabled cookies	31%	48%	24%	12%

The Four Classes

In view of the proportions given in Table 25, these four classes can be described as follows:

Class 1: Children in Class 1 perceive some threats online and they have some risk experiences. They seem to have more risk experiences related to unpleasant or inappropriate content, including comments, pictures and videos. They have a moderate amount of skills, and use some safety measures. Since they seem to lack knowledge, but nonetheless explore and experiment online without sufficient skills or safety measures, they will be referred to as the *Audacious Explorers*.

Class 2: It seems that respondents in this category perceive the least threats online, despite being the ones who experience most risks. Children in this group are those who have most skills and also apply the most safety measures in comparison to the other three classes. These children seem to be those who experience most risks, but are also the savviest, and thus they shall be labelled the *Savvy Adventurers*.

Class 3: Children in this class perceive the internet as having more threats than their peers in Classes 1 and 2. They also have less risk experiences when compared to these two classes. Despite being very similar to Class 1, it is noteworthy that their risk experiences related to inappropriate and negative online content are less. This class can be labelled as *Ambivalent Users* since they have some awareness of safety, and seem to stay away from danger.

Class 4: Children in Class 4 are a stark contrast to those in Class 2. Children in this class perceive the most threats online and they have the least risk experiences among the four classes. They are also the least skilled and those who are least likely to employ safety measures, except for privacy settings on SNS. Since they seem to be the most cautious respondents, they will be referred to as *Cautious Players*. The characteristics of each class are summarised in Table 26.

Table 26*Summary of LCA Descriptions*

	Perceive the internet as risky	Have risk experiences	Have skills	Use safety measures
Class 1 – Audacious Explorers	Slightly	Moderate, mainly content-related risks	Moderate	Some
Class 2 – Savvy Adventurers	No	Most	Most	Most
Class 3 – Ambivalent Users	Moderately	Moderate	Moderate	Some
Class 4 – Cautious Players	Yes	Least	Least	Few, mainly related to SNS use

Regressing on the covariates

The LCA process uses a logistic regression analysis to identify which of the covariates presented in

Table 22 best predict the likelihood that a respondent would be in each of the other classes in relation to a reference class. This was computed with each of the classes set as a reference class in relation to the other 3, and the significant ($p < 0.05$) covariates were identified. Further information about the logistic regression is presented in Appendix 14. Results show that 6 out of the 10 covariates were found to be significant, making class membership dependent on the significant covariates presented in Table 27.

Table 27*Significant Covariates*

Covariate Number	Description
1	The number of devices used to access the internet
4	The number of general accounts the child used
5	The number of picture accounts the child used
6	Whether the child used an invented date of birth online
7	The number of game accounts each child had
10	Whether the child had seen the Besmartonline! logo

When taking Class 1 (Audacious Explorers) as a reference class, respondents are more likely to be in Class 2 (Savvy Adventurers) if they have widespread accessibility to the internet through more devices, and a high number of both picture and general accounts. These predictors, which indicate that children carry out more activities online, seem to characterise more experiences of risk, but also more skills and safety measures. An increased access to the internet and SNS, despite exposing children to more risks, is also related to children being more adept at being safe online.

Participants are more likely to be in Class 3 (Ambivalent Users) if they had used an invented date of birth. This possibly indicates a greater presence on SNS which could explain the higher use of safety measures related to SNS. Having seen the BeSmartOnline! Logo increases the likelihood of being in Class 4 (Cautious Players). This could imply that being cautious online is related to children have received some training in online safety. More information about the significant covariates when the other classes are taken as reference classes is available in Appendix 14.

The following tables and figures give an overall interpretation of how the significant covariates predict class membership. For a given covariate, the table presents the predicted probability (by the model) that a participant is in each of the classes for the different possible values of the covariate. These probabilities are calculated from the log odds ratio given by the regression model using Formula 12 of Linzer and Lewis (2011).

Devices Used.

Table 28 shows how the number of devices a participant has access to, predicts membership in the latent classes. As illustrated in Figure 6, which is a graphical indication of Table 28, the most noticeable effect that access to devices has on the probabilities of class membership is that those children who have a greater access to devices are more likely to be in Class 1 (Audacious Explorers) and less likely to be in Class 4 (Cautious Players). Less

access to devices for children in Class 4 seems to be associated with less risk experiences, but also with having a negative perception of the internet, being less skilled and not using safety measures. Cautious Players seem to be quite sheltered, and while this can be positive, it is not entirely so. Their lack of skills might hinder their access to opportunities, and the development of resilience.

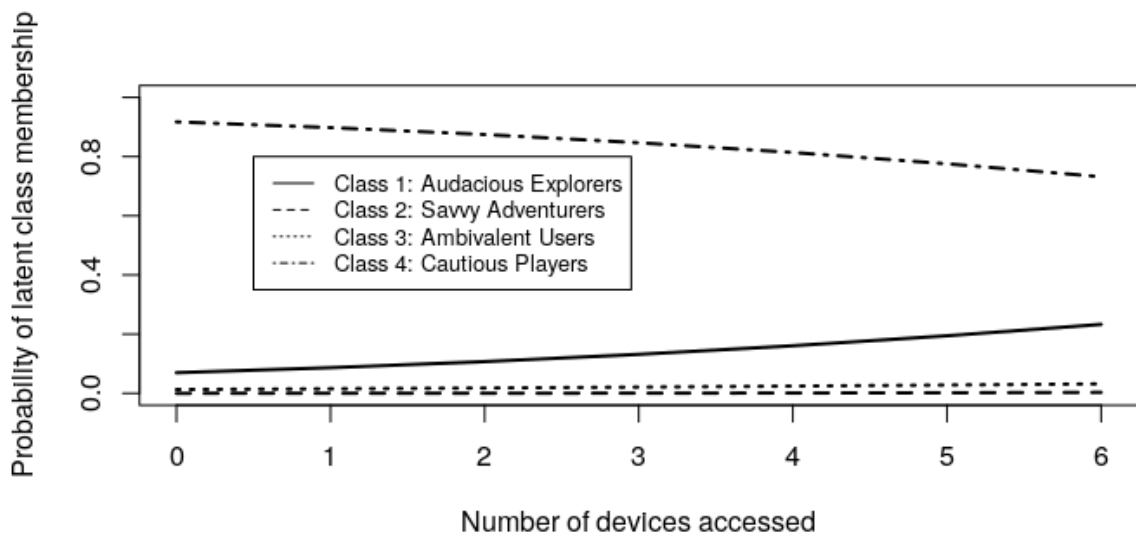
Table 28

Probabilities of Class Membership for Number of Devices Used

Number of devices	Class 1 Audacious Explorers	Class 2 Savvy Adventurers	Class 3 Ambivalent Users	Class 4 Cautious Players
None	0.070	< 0.0005	0.013	0.917
One	0.086	< 0.0005	0.015	0.898
Two	0.107	< 0.0005	0.018	0.874
Three	0.132	0.001	0.021	0.847
Four	0.161	< 0.001	0.024	0.814
Five	0.195	< 0.002	0.028	0.775
Six	0.233	0.003	0.032	0.732

Figure 6

Number of Devices Accessed as Predictor of Latent Class Analysis



General Accounts Used. The number of general accounts held by a participant as predictor of latent class membership is considered next. Table 29 gives predicted probability

of class membership depending on the number of general accounts held, and Figure 7 gives a graphical representation of these probabilities.

Table 29

Probabilities of Class Membership for Number of General Accounts Held

Number of general accounts	Class 1 Audacious Explorers	Class 2 Savvy Adventurers	Class 3 Ambivalent Users	Class 4 Cautious Players
None	0.111	< 0.0005	0.024	0.865
One	0.205	0.001	0.047	0.746
Two	0.338	0.003	0.085	0.574
Three	0.481	0.007	0.131	0.381
Four	0.590	0.017	0.174	0.218
Five	0.644	0.007	0.131	0.381

Figure 7

Number of General Accounts as Predictor of Latent Class

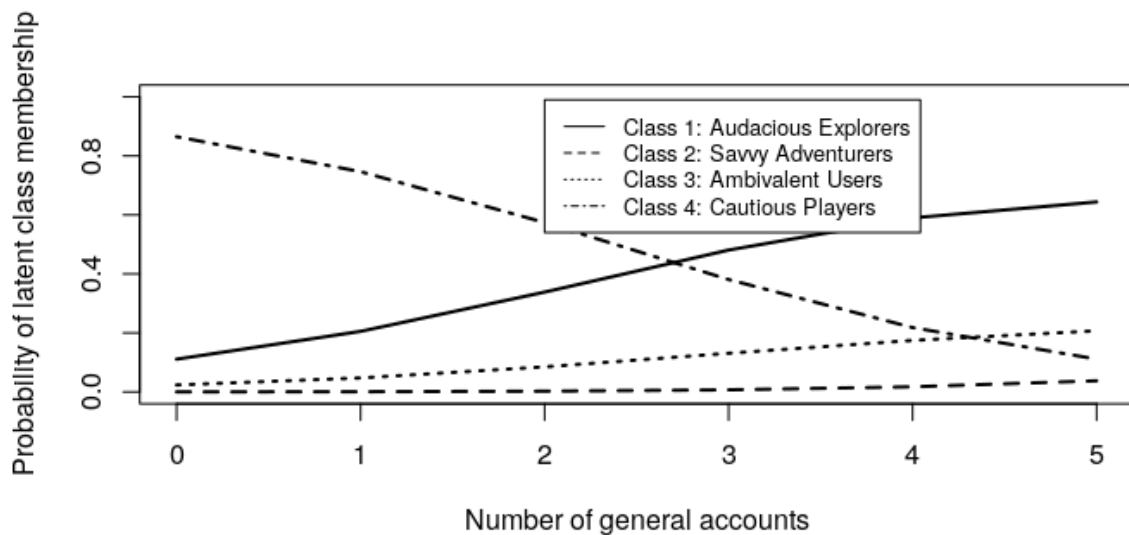


Figure 7 clearly shows that the number of general accounts children have has a very distinct effect on the probability of membership for all of the four classes. A greater number of general accounts held by a respondent makes them less likely to be in Class 4 (the Cautious Players). On the other hand, more general accounts held, indicate a greater probability of

being in Class 1 (Audacious Explorers). This difference in effect is so marked, that although the probability of membership in Class 4 is the highest, since this is the largest class, for participants who hold four or five accounts it is more likely that they are in Class 1 than in Class 4. This is evident from where the lines for each class intersect on the graph.

The probability of being in Classes 2 and 3 also increases with number of accounts held, but the effect is less here since these are small classes, especially Class 2. However, among participants who hold five accounts, probability of being in Class 3 even exceeds that of being in Class 4. This shows that those respondents who had less accounts on platforms like Facebook, Twitter, Skype, Google, Gmail and Ask.fm, which is a possible indication that they do less activities online, were more likely to be more cautious online. Doing less activities online is usually associated with encountering less risks online, but probably also to having less skills, which is reflected in the profile of children in Class 4 – Cautious Players.

Picture and Game Accounts. Table 30 and Figure 8 give the results for the covariate which counts the number of picture accounts held.

Table 30

Probabilities of Class Membership for Number of Picture Accounts Held

Number of picture accounts	Class 1 Audacious Explorers	Class 2 Savvy Adventurers	Class 3 Ambivalent Users	Class 4 Cautious Players
None	0.074	<0.0005	0.0176	0.908
One	0.097	<0.0005	0.028	0.874
Two	0.126	<0.0005	0.044	0.830
Three	0.159	0.001	0.067	0.772
Four	0.197	0.002	0.101	0.700

Figure 8

Number of Picture Accounts as Predictor of Latent Class

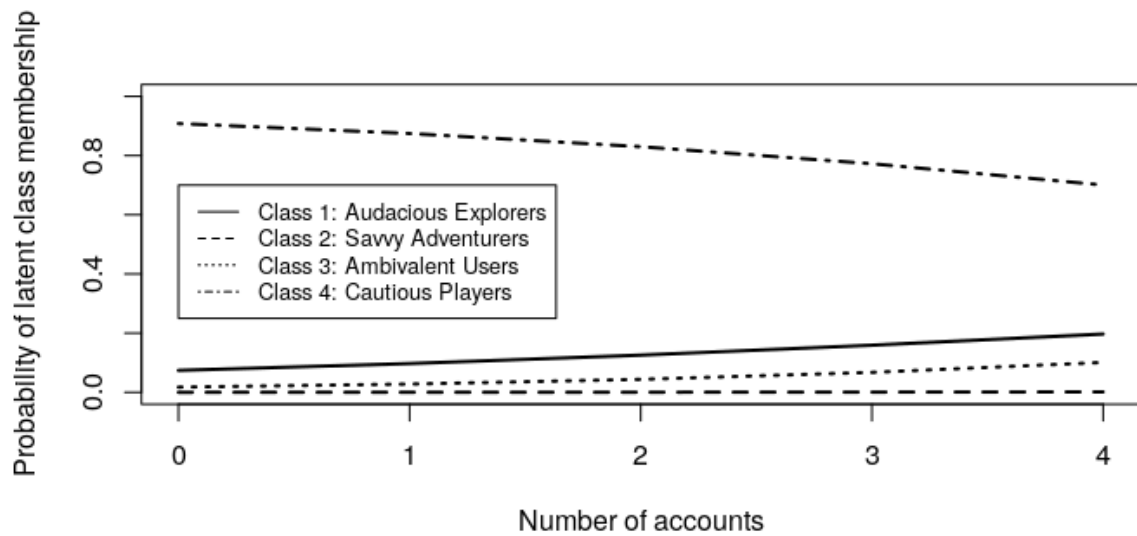


Table 31 and Figure 9 give the analogous information for the number of game accounts held.

Table 31

Probabilities of Class Membership for Number of Game Accounts Held

Number of game accounts	Class 1 Audacious Explorers	Class 2 Savvy Adventurers	Class 3 Ambivalent Users	Class 4 Cautious Players
None	0.091	<0.0005	0.015	0.894
One	0.144	<0.0005	0.019	0.837
Two	0.210	<0.0005	0.025	0.755
Three	0.320	0.0001	0.030	0.649
Four	0.438	0.001	0.034	0.526
Five	0.562	0.002	0.037	0.399

Figure 9

Number of Game Accounts as Predictor of Latent Class

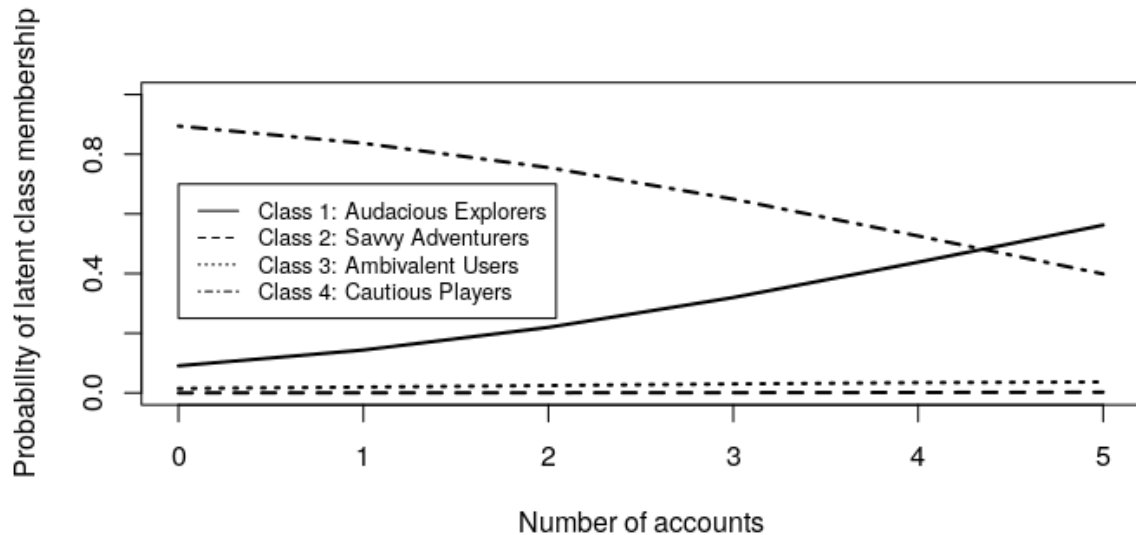


Figure 8 and Figure 9 tell a similar story as that for the number of general accounts. Having more picture and game accounts decreases the probability of being a Cautious Player but increases the probability of being in the other classes. Once again, this shows that children who are cautious (Class 4) seem to do less activities online.

Invented Date of Birth. Table 32 and Figure 10 present the probabilities of class membership for those who used an invented date of birth and those who did not. There is a difference between Class 4 and the other three classes. Using an invented date of birth decreases the chances of belonging in the cautious group (Class 4), while it increases the chances of being part of the Audacious Explorers (Class 1) and the Ambivalent Users (Class 3). It does not seem to have an effect on membership in the savvy group (Class 2). This further shows that children who are cautious do not use an invented date of birth online. This could be because they are the group who are least likely to have accounts on the different platforms investigated. On the other hand, the children who are more daring online and who

are exposed to some risks (Class 2 and Class 3) are also the ones who are more likely to invent a date of birth.

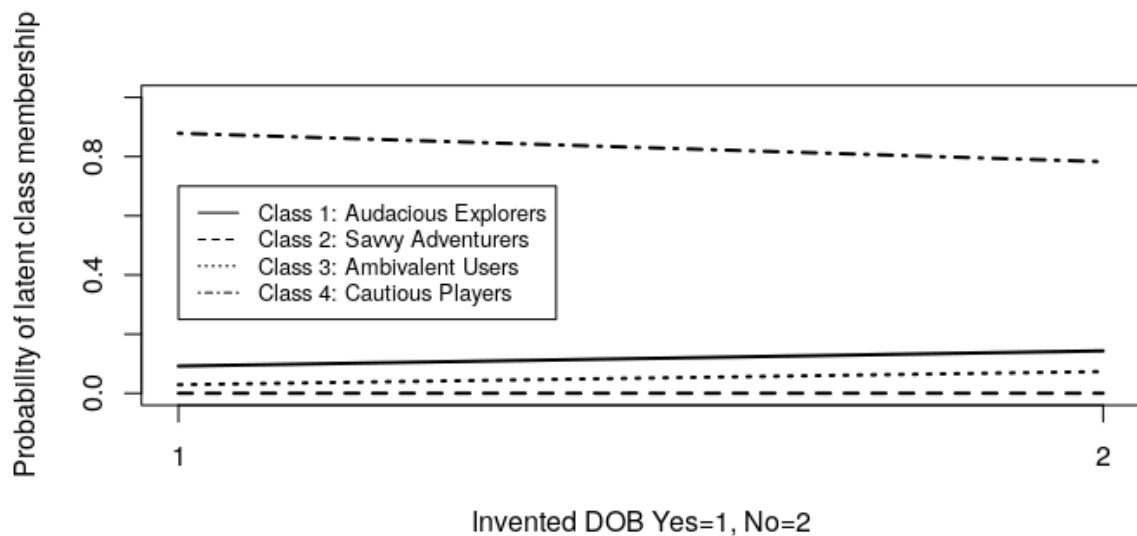
Table 32

Probabilities of Class Membership for Invented Date of Birth

Invented date of birth	Class 1 Audacious Explorers	Class 2 Savvy Adventurers	Class 3 Ambivalent Users	Class 4 Cautious Players
Yes	0.092	<0.0005	0.029	0.878
No	0.144	<0.0005	0.074	0.782

Figure 10

Invented Date of Birth as Predictor of Class Membership



BeSmartOnline! Logo. The final significant predictor investigated is whether the children had seen the BeSmartOnline! logo (Table 33 and Figure 11). Having seen the logo could imply that the children had been exposed to online safety information through sessions in schools or otherwise. There is a slight difference in whether participants had seen the logo or not. The odds of being in Class 1 among children who have seen the logo is slightly more

than it is among those who have not seen the logo, while the odds of being in Class 4 among children who had not seen the logo were slightly higher than those who had seen the logo.

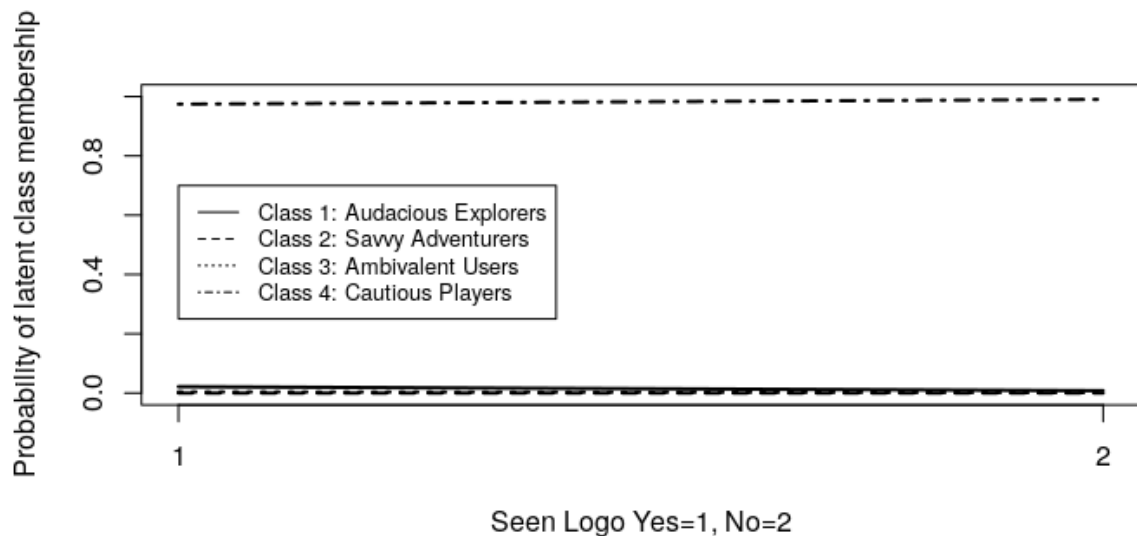
Table 33

Probabilities of Class Membership for Seen Logo

Seen logo	Class 1 Audacious Explorers	Class 2 Savvy Adventurers	Class 3 Ambivalent Users	Class 4 Cautious Players
Yes	0.022	<0.0005	0.004	0.974
No	0.008	<0.0005	0.001	0.991

Figure 11

Seen Logo as Predictor of Latent Class



The covariates that were not found to be significant also have implications to be considered. For instance, demographics (age and gender) are not significant predictors of children's perceptions and experiences regarding the use of the internet and the risks involved. This implies that their patterns of internet use are more important to fully understand their risk-related experiences. The time spent online was not one of the significant predictors either. This supports the recent emphasis on the role of the context and quality of

screen use, rather than on the amount of time spent online (Blum-Ross & Livingstone, 2016). It implies that there needs to be an increased effort in promoting parents' and professionals' understanding of what children do online, rather than how much time they spend engaged in online activities.

Summary of the Main Findings

The findings from the LCA can be summarised as follows:

- There seem to be four classes of children based on participants' risk perceptions, risk experiences, skills and safety measures.
- The Audacious Explorers (Class 1) experiment online and come across online risks, mainly related to inappropriate or unpleasant content, but do not have sufficient knowledge of online safety.
- The Savvy Adventurers (Class 2) perceive the internet quite positively, have the most experiences of risks, but are also the children who are most skilled and apply more safety measures.
- The Ambivalent Users (Class 3) have some negative experiences but also some awareness of online safety.
- The Cautious Players (Class 4) are the children who perceive the internet most negatively. They are the ones who have less risk experiences, and are also the ones who are least skilled and the least likely to employ safety measures.
- Class membership depends on 6 significant covariates. These are the number of devices used to access the internet, the number of general, game and picture accounts the child has, whether the child has invented a date of birth online and whether the child had seen the Besmartonline! logo.
- Age, gender and the time spent online are not significant in determining class membership.
- Children who carry out more activities online have more experiences of risk, and are also more knowledgeable.

- Children who have a negative perception of the internet, are less skilled, carry out less activities online and have less risk experiences.

These findings reinforce the association between exposure to risk and resilience (Livingstone & Haddon, 2011b; Ringrose et al., 2012; D’Haenens et al., 2013). Even though the class of Savvy Adventurers is the smallest of all the four classes, it is clear that children who have more risk experiences are also those who possess better risk management skills. Rather than helping children avoid risk, it would be better to ensure that they possess sufficient digital literacy skills to help them manage risk. The Cautious Players, despite having the least risk experiences, are the least adept at managing risky situations online and this could have repercussions for their online safety. Children in this class are the ones who are most likely to have seen the logo of the BeSmartOnline! programme, which might imply that they have been given some training in online safety. However, the direction of this relationship cannot be determined from this analysis. It is not clear whether children are cautious because they have learnt about online safety or whether they seek information about online safety because they are concerned about safety. This calls for ongoing evaluations of the efforts of the Maltese Safer Internet Centre to ensure that while children are taught about online safety, they do not miss out on opportunities that the digital world could provide.

Efforts to teach digital literacy need to take these findings into consideration. Most children go online and feel ambivalent about online risk, yet they are neither savvy enough nor cautious enough. Digital literacy education needs to support experimentation and addresses their ambivalent feelings, while focusing on educating children about values and principles rather than merely being a list of permissions and restrictions. In an ideal world, digital literacy education is driven by the children’s own needs and experiences rather than by a set curriculum. If the children’s knowledge, skills, attitudes and values are evaluated, digital literacy education can be targeted towards their current stage. However, the current digital

literacy education provided is cross-curricular and it would be very difficult to assess children's skills and provide focused interventions that build on their current knowledge.

The first part of this chapter showed that children are not a homogenous group, because they have different risk perceptions, risk experiences, skills and they also differ in how they use safety measures. The findings confirm that resilience develops where children have more access to opportunities, and also more experiences of risk. Children who experience less risk also have less opportunities and less skills. In fact, the four categories of children identified depend mainly on the type of internet access children have, the activities they carry out and the safety information they have. Contrary to the common understanding, age, gender and the time spent online were not significant predictors for these categories.

Part 2 - Corroborating the Latent Class Analysis

The four classes were extrapolated from in-depth analyses of the survey data. In the second part of this chapter, another study was carried out where children could be involved in reviewing and corroborating the legitimacy of the four classes. This second part was also relevant in view that the survey data was collected early in the research process, and more recent data would give these findings more weight. Thus, the study being discussed in this section aimed at investigating whether the classes identified from the survey would be identified with another group of participants and can be generalised. The main research question for this study was: Do children aged between 9 and 12 years recognise and identify with the 4 classes resulting from the LCA?

Method

Constructing the Tool. Four child profiles (A, B, C, and D) were created based on the response patterns that discriminated the latent classes from each other. Each of the profiles corresponded to one of respective classes discussed above: A referred to Audacious Explorers (Class 1), B referred to Savvy Adventurers (Class 2), C referred to Ambivalent Users (Class 3) and D referred to Cautious Players (Class 4). The profiles were written in a child-friendly

manner, while remaining as true as possible to the classes identified. In order to make sure that they accurately portray the four classes, these profiles were given to a second researcher who was familiar with the LCA data and asked to identify the classes from each description. As a result of this process, the description of classes 1 and 3 which were very similar were clarified further. These descriptions are presented in Table 34 below.

Table 34

Descriptions of the Latent Classes

<p>A. Maria is curious about the internet, but thinks it is not always safe for a child her age. She is unsure about how to stay safe online. While using the internet she has seen some comments, pictures and videos that she thinks are not good.</p>	<p>B. Maria knows how to use the internet very well and she does many things online. When using the internet, she often had experiences that were not so nice. However, she knows what to do to stay safe online.</p>
<p>C. Maria is curious about the internet, but thinks it is not always safe for a child her age. She is unsure about how to stay safe online. While using the internet she has sometimes had some bad experiences online such as ads popping up when playing a game or doing something online (pop-ups).</p>	<p>D. Maria is very careful when she uses the internet because she is afraid. She thinks there are many things online that she needs to be careful of. She does not remember anything bad happening to her when using the internet.</p>

An exercise was prepared based on these descriptions (Appendix 15). Participants were asked to read the four profiles and choose the one with which they identified with most. They were also asked to think of a friend they know well and place him or her in one of the four profiles and explain why. Participants were only asked to explain ‘why’ in the case of their friends, so that they did not need to be defensive when explaining the reason why they chose a letter for themselves. Explaining their choice for their friends would serve as a way to give reasons for their choices without having to explain this about themselves.

Following this, the children were asked four questions. These questions were related to risk perceptions, risk experiences, digital skills and safety measures. These four themes were the factors on which the four classes were constructed. The rationale behind using these

four questions was to identify whether a similar pattern of responses found in the LCA could be identified in the new cohort of children. Two versions of the exercise were prepared, one for boys and another for girls. Since children had to identify which profile they associated with, they were given the exercise corresponding to their gender to avoid gender bias. Both versions were created in English as well as Maltese. This was done together with an author of children's books, to ensure that the language used in the exercise was age-appropriate.

Ethical Considerations. A proposal was then sent to FREC (1395 05.04.2019) for ethical approval, which was received on the 18th June, 2019. The proposal included all the details pertinent to the data collection and the research tool, together with the information letter for Directors and Heads of schools (Appendix 1), the information letter and consent form for parents (Appendix 1), and the children's assent form (Appendix 1).

Pretesting. Following ethical approval, the exercise was pretested with 9 children who were asked to fill in the exercise individually. After finishing the exercise, they were asked to discuss whether there were things that they found problematic when filling in the exercise. Four minor changes were suggested, however none of these related to the profile descriptions. The exercise was finalised for data collection and the final versions of the exercise are presented in Appendix 15.

Data Collection. The data was collected between July and October 2019 from two summer schools, two youth groups and two schools where I had contacts. After the Head of the school or director of the group gave permission for the research to be carried, the information letters and consent forms for parents were distributed. The research was carried out with those children whose parents consented that they take part. The exercise was administered to children in a group (e.g. classroom). First, the purpose of the exercise was explained to the children and then they were asked to read the information on the assent form and confirm whether they were interested in participating. Once the assent forms were collected, those children who assented were given the exercise to work out individually in the

language they preferred (Maltese or English). The exercise was carried out with 207 children. The data was inputted and analysed using SPSS. The participants' ages and gender are presented in Table 35.

Table 35

Age and Gender of Corroboration Exercise Participants

			Age					
			9	10	11	12	Missing	Total
Gender	Boy	Count	10	12	50	8	2	82
		% of Total	4.8%	5.8%	24.2%	3.9%	1.0%	39.6%
	Girl	Count	51	47	12	15	0	125
		% of Total	24.6%	22.7%	5.8%	7.2%	0.0%	60.4%
Total	Count		61	59	62	23	2	207
	% of Total		29.5%	28.5%	30.0%	11.1%	1.0%	100.0%

Findings

Children Recognise the Latent Classes. Participants seem to recognise and identify themselves with the descriptions presented in the exercise. The majority of children ($n = 183$) chose one of the descriptions. A Chi-Square analysis of the descriptions chosen for themselves was significant ($\chi^2 = 55.2$, $df=4$, $p \leq 0.000$), implying that this was not due to chance. However, there is a sharp contrast between the Estimated Class Population Shares of the LCA resulting from the survey (Table 24) and the results of this exercise. Over one-third of the children in this exercise chose description B (Class 2) as the one that best describes them or their friend. In the LCA, this class had the lowest population share. These comparisons are presented in Table 36. Moreover, fewer children in the exercise chose descriptions A and C (Classes 1 and 3) in comparison to the LCA. This could be because these descriptions contained specific references to inappropriate comments, pictures, videos

and pop-ups. Children might have been affected by social desirability biases when filling in the exercise. A similar bias was identified when children discussed their own online practices in the focus groups. There was clear evidence of self-serving biases. This could explain why in the corroboration exercise, when describing themselves, a larger percentage of children chose description B, which mentions knowledge, and why less children chose descriptions A and C, which mention risky experiences.

Table 36

Frequencies of Class Chosen for Self and Friend Compared to LCA Estimated Class

Population Shares

	Letter Self		Letter Friend		LCA (from survey)
	Frequency	%	Frequency	%	%
A (Class 1)	22	10.6	20	9.7	28.7
B (Class 2)	77	37.2	74	35.7	10.9
C (Class 3)	29	14.0	27	13.0	21.4
D (Class 4)	55	26.6	60	29.0	39.0
None	24	11.6	26	12.6	-
Total	207	100.0	207	100.0	100.0

Children are More Likely to Have Friends Who are Similar to Them. A Chi-Square analysis of the description participants chose for their friends was significant ($\chi^2 = 55.8$, $df=4$, $p \leq 0.000$) implying that this choice was also not due to chance. Table 37 compares the description children chosen for themselves to the one they chose for their friends. The results imply that children are more likely to have friends with similar characteristics. The Chi-Square test was significant ($\chi^2 = 86.8$, $df=16$, $p \leq 0.000$) indicating that there is an association between how children describe themselves and how they describe their friends. They were more likely to choose the same description for themselves and their

friends. For descriptions B and D (Class 2 and Class 4) more than half of the children classified themselves and their friends using the same description. This could reflect the false consensus effect, where children think their own behaviour is more typical than it actually is. This could also be another manifestation of the self-serving biases. When they described themselves as knowledgeable, they would want to be associated with friends who were like them. When they described themselves as cautious, they did not want their friends to be portrayed as better than them.

Table 37

Crosstabulation of Letter Self with Letter Friend

			Letter Friend					Total
			A	B	C	D	None	
Letter Self	A	Count	5	6	3	8	0	22
		Expected Count	2.1	7.9	2.9	6.4	2.8	22.0
		Standardized Residual	2.0	-0.7	0.1	0.6	-1.7	
	B	Count	5	41	6	15	10	77
		Expected Count	7.4	27.5	10.0	22.3	9.7	77.0
		Standardized Residual	-0.9	2.6	-1.3	-1.5	0.1	
	C	Count	3	6	14	3	3	29
		Expected Count	2.8	10.4	3.8	8.4	3.6	29.0
		Standardized Residual	0.1	-1.4	5.3	-1.9	-0.3	
D	Count	6	16	2	28	3	55	
	Expected Count	5.3	19.7	7.2	15.9	6.9	55.0	
	Standardized Residual	0.3	-0.8	-1.9	3.0	-1.5		
None	Count	1	5	2	6	10	24	
	Expected Count	2.3	8.6	3.1	7.0	3.0	24.0	
	Standardized Residual	-0.9	-1.2	-0.6	-0.4	4.0	0.0%	

More than expected, those children who indicated that none of the descriptions fit them, were also likely to say so about their friends. Part of this group could be the small percentage of children who use the internet less than their peers. Children might also have chosen 'None' if they were uncomfortable relating themselves to one of the descriptions, however, this would not explain why they would also be more likely to choose the same for

their friends. However, the false consensus effect and the self-serving bias explained earlier would also explain this finding.

The standardised residuals presented in Table 37 indicate how many standard deviations away from the mean an expected score is. Large standardised residuals indicate a considerable difference between the actual and expected counts. A positive value means that the actual count is higher than the expected and a negative value indicates the opposite. Observing the standardised residuals for children who chose description B, all of the values for the descriptions they chose for their friends (bar the same description B and None) are negative. This means that children who classify themselves as Savvy Adventurers are less likely to have friends who are more cautious or have negative experiences online, which could confirm the hypothesis, that children often have peers who are similar to them. It could be that associating themselves to children who are savvy feeds their self-serving biases.

Children who considered themselves to be cautious (D), were least likely to choose friends who encountered some negative experiences such as pop-ups (C). This could be a further indication that children often associate with peers who are similar to them and who did not have negative experiences. However, a similar pattern would be expected for description A, which also mentions negative experiences, but this was not the case. Even though the numbers are rather small, this indicates the complexity of the children's online experiences.

Children's Claims about Risk Experiences Suggest Self-Serving Biases. When running the Chi-Squared test for the letter that the participants chose for themselves and Question 5, the only significant association was in relation to Question 5b – “I have had unpleasant or bad experiences online” ($\chi^2 = 44.9$, $df=16$, $p \leq 0.000$). The results in Table 38 indicate that the majority of those who opted for description B (Class 2 – Savvy Adventurers) claimed that they had very few or hardly any risk experiences. This is unlike the LCA profile of the Savvy Adventurers (Class 2) who had the most risk experiences. This result could reflect the children's self-serving biases when selecting a description for themselves.

However, children who chose description C had more risk experiences. This is also unlike the LCA profile of Ambivalent Users (Class 3). This group actually had less risk experiences and this could contradict the claim that self-serving biases were present.

Table 38

Crosstabulation of Letter Chosen for Self with Negative Experiences Online

			Q. 5b I have had unpleasant or bad experiences online					
			Very often	Often	Very few	Hardly any	Missing	Total
Letter Self	A	Count	0	2	12	8	0	22
		Expected Count	1.2	2.4	8.2	10.1	0.1	22.0
		Standardized Residual	-1.1	-0.3	1.3	-0.7	-0.3	
	B	Count	5	4	36	32	0	77
		Expected Count	4.1	8.6	28.6	35.3	0.4	77.0
		Standardized Residual	0.4	-1.6	1.4	-0.6	-0.6	
	C	Count	4	10	7	7	1	29
		Expected Count	1.5	3.2	10.8	13.3	0.1	29.0
		Standardized Residual	2.0	3.8	-1.2	-1.7	2.3	
	D	Count	2	5	16	32	0	55
		Expected Count	2.9	6.1	20.5	25.2	0.3	55.0
		Standardized Residual	-0.5	-0.4	-1.0	1.3	-0.5	
	None	Count	0	2	6	16	0	24
		Expected Count	1.3	2.7	8.9	11.0	0.1	24.0
		Standardized Residual	-1.1	-0.4	-1.0	1.5	-0.3	

Children's Perceptions of Risk are Consistent with the Description Chosen. The results related to children's risk perceptions seem to be consistent with the findings of the LCA (Table 39). Children who chose descriptions A (Audacious Explorers) and C (Ambivalent Users) did not agree that the internet is safe. From the children who chose description D (Cautious Players), more than expected disagreed that the internet is safe. Children who chose letter B (Savvy Adventurers) agreed that the internet is safe. While these results need to be interpreted with caution because the Chi-Square analysis only verges on being significant ($\chi^2 = 26.1$, $df=16$, $p = 0.053$), it can be debated that a p-value which is only slightly higher than 0.05 might still indicate significant associations.

Table 39*Crosstabulation of Letter Chosen for Self with Perception of Risk*

			Q. 5a I think that the internet is safe					
			I agree very much	I agree	I do not agree	I totally disagree	Missing	Total
Letter Self	A	Count	1	5	15	1	0	22
		Expected Count	1.0	7.3	9.7	3.9	0.1	22.0
		Standardized Residual	0.0	-0.9	1.7	-1.5	-0.3	
	B	Count	7	28	29	13	0	77
		Expected Count	3.3	25.7	33.9	13.8	0.4	77.0
		Standardized Residual	2.0	0.5	-0.8	-0.2	-0.6	
	C	Count	0	9	15	4	1	29
		Expected Count	1.3	9.7	12.7	5.2	0.1	29.0
		Standardized Residual	-1.1	-0.2	0.6	-0.5	2.3	
	D	Count	1	17	21	16	0	55
		Expected Count	2.4	18.3	24.2	9.8	0.3	55.0
		Standardized Residual	-0.9	-0.3	-0.6	2.0	-0.5	
	none	Count	0	10	11	3	0	24
		Expected Count	1.0	8.0	10.6	4.3	0.1	24.0
		Standardized Residual	-1.0	0.7	0.1	-0.6	-0.3	

Gender Differences in Children's Responses. Further Chi-Squared tests were performed on combinations of the variables for age, gender, letter self and letter friend. Table 40 shows these results. The associations between the child's gender and the letter chosen for themselves and their friends were significant.

Table 40*Chi Square Tests for Age, Gender and Letters Chosen for Self and Friend*

Pearson Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Age * Letter Self	26.06	16	0.053
Gender * Letter Self	21.82	4	0.000*
Age * Letter Friend	23.51	16	0.101
Gender * Letter Friend	13.81	4	0.008*

*p ≤ 0.000 (significant)

Table 41 shows that girls were more likely to choose description D (cautious) for themselves while boys were more likely to choose a description other than D for themselves. This could indicate that girls are, or claimed to be more cautious online while boys are, or claimed to be more reckless. These findings reflect the gender differences identified by Livingstone and Helsper (2010) that boys are more exposed to online risks.

Table 41

Crosstabulation of Gender with Letter Chosen for Self

			Letter Self					
			A	B	C	D	None	Total
Gender	Boy	Count	7	35	10	12	18	82
		Expected Count	8.7	30.5	11.5	21.8	9.5	82.0
		Standardized Residual	-0.6	0.8	-0.4	-2.1	2.8	
	Girl	Count	15	42	19	43	6	125
		Expected Count	13.3	46.5	17.5	33.2	14.5	125.0
		Standardized Residual	0.5	-0.7	0.4	1.7	-2.2	

Boys might be more likely to tell each other what they saw online to show off. This is evident from boys' claims (Table 42) that their friends were less likely to be cautious (description D) and more like to have had some risky experiences (descriptions A and C). The opposite is true for girls: their friends were more cautious (description D) and did not engage in risky behaviours (descriptions A and C). The values are lower for description A. This could be because the description refers explicitly to inappropriate comments, pictures and videos, and children might not admit to their friends that they came across such content. It could also be the result of social desirability biases when answering the exercise.

Table 42*Crosstabulation of Gender with Letter Chosen for Friend*

			Letter Friend					
			A	B	C	D	None	Total
Gender	Boy	Count	9	27	16	15	15	82
		Expected Count	7.9	29.3	10.7	23.8	10.3	82.0
		Standardized Residual	0.4	-0.4	1.6	-1.8	1.5	
	Girl	Count	11	47	11	45	11	125
		Expected Count	12.1	44.7	16.3	36.2	15.7	125.0
		Standardized Residual	-0.3	0.3	-1.3	1.5	-1.2	

Descriptions in the Open-Ended Question Match the Characteristics of the

Classes. The open-ended question where participants were asked to explain why they chose that description for their friend was also analysed. Each statement was assigned a keyword or phrase that summed up its gist. For instance, the explanation “because she tells me she is very careful [on] online and very careful [when] playing or watching videos online” was assigned the keyword ‘Caution’. Where possible, these keywords were then revised and grouped according to similarity. While it was not possible to conduct a Chi-Squared test because of the several keywords identified, Table 43 shows some interesting patterns.

The keyword ‘Caution’ was predominantly identified in children who chose description D (Cautious Players). The keyword ‘Know-how’ often resulted from explanations of children who chose description B (Savvy Adventurers) for their friends. While children might have been primed by the four descriptions presented, even other keywords seem to fit the respective class. ‘Lack of internet use’ and ‘Friend had negative experience’ were related to description C, who are the children who often encounter technical risks online. ‘Lack of fear’ and ‘Responsibility’ were associated to choosing description B – the Savvy Adventurers. These children perceive the internet as safe and have both risk experiences together with the skills to manage these experiences.

Table 43*Crosstabulation of Keywords with Letter Friend*

Keyword	Letter Friend					Total
	A	B	C	D	None	
Carry out activities together	0	5	1	1	0	7
Caution	4	10	4	32	3	53
Curiosity	1	0	1	0	0	2
Fear	2	0	1	2	0	5
Friend asks for help	0	0	1	1	0	2
Friend does not like the internet	0	0	0	0	1	1
Friend experienced risk but knows how to be safe	0	4	0	0	0	4
Friend had negative experience	1	3	5	0	0	9
Friend had no negative experience	0	0	0	2	0	2
Friend has adult supervision	0	1	0	2	0	3
Friend is similar to me	2	7	2	2	1	14
Friend said this description is like them	0	0	2	1	0	3
I know my friend	2	1	0	0	0	3
Know-how	0	24	0	4	0	28
Lack of internet use	1	0	0	4	3	8
Lack of knowledge	1	0	0	0	0	1
None of these describe my friend	0	0	0	0	2	2
Other reasons	2	4	4	5	3	18
Responsible	0	5	1	2	0	8
Sharing	1	1	0	1	1	4
Unafraid	0	2	0	0	1	3
Unsafe	2	1	5	0	3	11
Do not know	0	2	0	0	5	7
Missing	1	4	0	1	3	9
Total	20	74	27	60	26	207

In the LCA, there were no extreme differences between the Audacious Explorers and the Ambivalent Users except for the types of risks that children were exposed to. This was reflected when preparing the descriptions for A and C respectively. It could be that because the differences between these two classes are not clear cut there are no keywords that stand out for these two classes as in the case of descriptions B and D.

Limitations

The corroboration exercise has some limitations that should be considered when analysing the results. The profile descriptions were based on the different response patterns identified in the LCA. In order not to influence the participants' responses, they were designed to be as simple and as neutral as possible, and thus, some nuances between the classes might have been lost. To mitigate this, Question 5 was included to identify whether

the description chosen by the children matched their actual risk perceptions, risk experiences, digital skills and safety measures. A question about each of these (Q. 5a-d) was asked in order to compare the letter chosen to the response patterns.

Children were provided with the option to choose 'None' if they felt that none of the descriptions were relevant to them or to their friend. In the pretesting all children selected a letter for themselves and their friend. In hindsight, the option to choose 'None' could have been removed from the main exercise as it might have led to some participants taking the easy way out instead of picking one of the descriptions. However, when considering that around 12% ($n = 24$) of children chose 'None' either for themselves or their friends, the possibility that some of the participants chose this as an easy way out is low and it is possible that they truly felt that none of the 4 categories depicted them. This finding corroborates the existence of the 4 classes identified through the LCA. Since only 12% could not identify with one of the classes, it confirms that children recognise and identify with these 4 classes.

The exercise was intentionally planned to be as brief as possible. Participants were asked to think of a friend. It was assumed that most of the children aged between 9 and 12 would have friends of their same age. However, it could be the case that some participants were referring to children who were outside the age bracket of the study. This was an oversight when preparing the exercise.

A convenience sample was chosen for this study. Boys and children aged 12 are slightly underrepresented, but since age and gender were not significant predictors of class membership, this was not considered as an issue that would impact the results.

In the data collection phase, some children could be seen discussing with others while working out the exercise. While they were reminded to work individually, the conversations they had with each other could have influenced their answers.

A final limitation refers to the comparisons drawn between the results of LCA from the survey (Part 1) and the ones from the corroboration exercise. It is important to note that

the participants were two separate groups of children who were asked different questions and thus, the interpretations provided are tentative for this reason.

Conclusion

Based on children's risk perceptions, risk experiences, skills and safety measures used, four classes were identified. These were labelled as Audacious Explorers (Class 1), Savvy Adventurers (Class 2), Ambivalent Users (Class 3) and Cautious Players (Class 4) according to the patterns identified through the LCA. A corroboration exercise was carried to explore whether at a distance of around 4 years from the first analysis, children could recognise and identify with these classes. Children did recognise these classes but there were some noticeable differences. The resulting class sizes in the exercise were different from the ones in the LCA particularly with respect to Class 2 – Savvy Adventurers which was the smallest class in the LCA (10.9%) but the largest one in the corroboration exercise (37.2%). This could imply that children's savviness in relation to digital media has increased or that children were influenced by their self-serving biases in their replies, similar to what was discussed in the focus group findings. The findings from this phase confirm that children's online experiences are rather complex and several factors need to be considered in order to fully understand their experiences. Children's social representations of risk develop within this complexity. The following chapter presents these representations through an integration of findings from the three research phases, and discuss their implications for online safety.

CHAPTER 7

DISCUSSION AND CONCLUSION

Chapter 7. Discussion and Conclusion

Addressing the Research Gap

The aim of this research is to understand preadolescents' social representations of online risks. Online risks incorporate content, contact and conduct risks as classified by Staksrud and Livingstone (2009). These categories refer to technical risks such as pop-ups, viruses and hacking, and non-technical or interpersonal risks such as cyberbullying, stranger danger, sexual content and communication, and violent or other inappropriate content. The premise is that the way children represent or make sense of online risks influences how they behave online: what opportunities they engage in, the safety measures they employ, the risks they come across, how they react to them and where they seek help. It is through understanding the variety of children's cognitions about risk that their online safety needs can be addressed.

Children can learn self-management strategies they can use but adults around them, parents and educators alike, also have a role in addressing their safety needs. The choice to carry out this research with children aged 9 to 12 was because this age-group is often caught between the ages of childhood and adolescence, and few research studies focus specifically on these ages. Preadolescents are not necessarily more at risk than other ages. However, the age limit for most SNS is 13 years and as evident from this research, children younger than 13 are present on SNS, either with or, even worse, without their parents' permission. This has significant implications for preadolescents' online safety and makes it important to understand them as a separate group. To my knowledge, there are no other studies that apply

the theoretical framework of social representations to the study of preadolescents' understanding of online risk.

Summary of the Main Findings

The findings confirm that Maltese preadolescents between the ages of 9 to 12 years are frequent internet users with a widespread internet access from several places through several devices. This access includes portable and mobile devices that makes their internet use private and personal. The findings also show that despite all the participants being below the age of 13, they still use SNS. As a result, they have access to opportunities, but this also increases the probability of encountering online risk. In fact, three-fourths of survey participants indicated that they had negative experiences online. Children perceive technical risks to be more dangerous than any other risks. Preadolescents' internet use, their perceptions of online risks, risk experiences and their skills, all contribute to their representations of risks. They seem to have a predominantly negative perception of the internet.

Children attribute different meanings to online risk, and they understand that going online will also mean coming across risks. It is positive that children are aware of this. However, those children who are hyperaware of online risks, might become afraid of using the internet. This finding might imply that the way online risks are explained to children should not increase their fears of using the internet, particularly because fear is found to block action in the face of risk (Breakwell, 2007). Children find it easier to conceptualise those risks that have more tangible effects or those which they have had experiences of. When children have gaps in their understanding of risks, they anchor and objectify these risks or find other ways of filling in the gaps, such as by using what they learn from friends, adults and the media. Yet when they have the right knowledge and skills, they are very confident about their online behaviours. On the other hand, children seem to have misconceptions or self-serving biases which are evident from the way they position themselves vis-à-vis others. These biases could be influencing how they behave online. While families often take a protective role, they

are also giving out mixed messages to children, such as when they help them set up SNS profiles with a fake date of birth.

The variety of cognitions children have about online risks can be related to the different categories of children identified. These vary according to children's risk perceptions, their online risks experiences, the skills they have and the safety measures they use. Two distinct categories are the Savvy Adventurers (Class 2) who are more skilled and the Cautious Players (Class 4) who are very careful online. The other two categories of children, the Audacious Explorers (Class 1) and the Ambivalent Users (Class 3) do not perceive the internet as safe and have limited skills and encounter different types of risky experiences online. The main difference between the two is that Audacious Explorers encounter more inappropriate or unpleasant material online. The differences between these four groups are not brought about by age or gender, which means that one of the solutions for helping children needs to be a shift from focusing solely on demographic factors.

Children aged 9 to 12 recognised these four categories, and the majority of them could associate themselves with one of the categories. However, children participating in the LCA corroboration claimed to be savvier than those who participated in the survey from the first phase of the research. This can be an indication that children's digital skills are increasing. Alternatively, children could have responded in ways that confirmed their self-serving biases when explaining their online behaviours, which might be a possibility as the focus groups findings suggest.

Children's Social Representations of Online Risks

When discussing online risk, the connected child is often categorised as being either in danger or as engaging in dangerous behaviours (Holloway & Valentine, 2001). However, understanding children's agency in relation to how they engage with technology can be more useful. Online risks are rarely inherent within the medium, but as evidenced by the findings, they often result from the diverse ways children interact with technology. While the EU Kids

Online classification of risks as content, contact and conduct risks is a useful conceptualisation, the way children understand these risks is diverse. What follows is a presentation of the different social representations identified together with further discussion of salient issues that ensued from the findings. This discussion applies the principles of abductive reasoning, intersubjectivity and transferability proposed by Morgan (2007) within the pragmatic paradigm, to analyse the intricateness of children's cognitions of online risk.

From the few studies found analysing children's social representations of risks, it seems that the cognitions children hold about risks, influence their risk perceptions, and when these are incorrect, they hinder their ability to make informed decisions and to feel empowered (Goodwin et al., 2004). The findings in the present study show that children have varied representations of online risks which are likely to be influenced by their experiences and their social contexts. This section will attempt to identify possible social representations of online risks by presenting codes and metaphors that portray how children make sense of online risks. The implications that these could have on how to approach online safety will also be discussed.

Representational Field

The representations are derived from an engagement with the data, particularly the qualitative study as explained earlier in the methodology chapter. The diversity and sometimes contradicting representations identified point to what Rose et al. (1995) termed the representational field. Not all preadolescents have the same representations of online risk. However, this 'representational field' where a degree of consensus exists, enabled a common ground where children could share their views of online risk. The findings from the LCA confirmed that despite being in the same age group, intra-group differences are present among preadolescents. Gender and age were not significant predictors of these differences which confirms that as Bauer and Gaskell (1999) argued, social representations do not depend solely on such group characteristics. Some of the findings question Duveen's (1996) argument that

children do not simply adopt the representations available to them. Indeed, when children do not have sufficient information, they seem to be absorbing the representations accessible to them. However, this could also point to cognitive processes which are not sophisticated enough for children to distinguish between the signified and signifier, which would need further exploration to understand their impact on children's social representations.

Metaphors and Shared Meanings

Two groups of metaphors were identified. The metaphors of online risks represent the ways in which children think about specific aspects of online risks. The second group of metaphors are related to the internet. Children's thoughts and feelings about the internet inherently also contain their representations of how risks are related to the online experience. Besides the metaphors, some shared meanings which refer to children's ideas and common understanding of online risks will also be presented to further flesh out the representational field. As Lauri (2009) argues, metaphors can powerfully convey the meanings attributed to novelty. Some of these metaphors derive from children's own words during the focus group discussions. Others were identified through my reflections on the findings of this research, with the aim of presenting images that reflect how children think and feel about the online world and its risks.

Metaphors of Online Risk

The metaphors that represent online risks and their explanation are presented in Table 44. These are expanded upon in the subsequent sections. Where possible, I will also attempt to identify which of these representations could pertain to each of the four latent classes identified.

Table 44*Metaphors of Online Risks*

Online risks as...	Explanation	Class
A bad guy	Children anchor online risks in other stereotypes they have of danger.	Ambivalent Users Cautious Players
A red flag on a sandy beach	Children are aware that risks are an inherent part of going online.	All Classes
A hot surface	Children realise the danger when risks are tangible, or when they have direct experiences of them.	Audacious Explorers Savvy Adventurers Ambivalent Users
Singing a song in a foreign language without knowing all the words	Children fill in the blanks when there are aspects of risks that they do not fully understand	Cautious Players
A game of dodgeball	Children believe they are immune to risks and that they will not be affected by them.	Audacious Explorers Ambivalent Users
A trapdoor they know about	Children who are skilled are confident online and they can manage risks.	Savvy Adventurers

Online Risks as a Bad Guy. Children see online risk as a bad guy. This unknown male is either a burglar, a kidnapper, a hacker, or a murderer, and is wearing a mask or disguised as a pizza delivery man or as a mail man. This man appears friendly, but is ready to pounce on them when they least expect it and wreak havoc in their lives and steal from their home, kidnap them, or murder them. Through the mask or disguise, the man can hide his real intentions in order to be able to learn about them, get access to their safe spaces and then cheat and deceive them. For children, online risk is like an intruder in their safe space, and online safety means keeping this bad guy out. The padlock, which implies encrypted communication on websites, is a symbol that children associated with safety. Through using the padlock, they can keep the bad guy from coming into their safe space.

This representation indicates that children objectify online risk as being a person and anchor their understanding of the dangers in stereotypes of shady figures, from what adults

explain to them and from what is available to them in other forms of media, such as villains in movies. While there could be some elements of truth in this representation because strangers can pose a danger to children, it also includes fantastical or exaggerated elements that might be hindering children's adequate assessment of online risks. This might be an example of how children engage with a social representation (ontogenesis) without being the ones to have created such representation (sociogenesis). From an adults' point of view, the representation that results does not sufficiently reflect the real nature of the online risk and thus leads to inadequate ways in which children can protect themselves online. It could also be that for children 'online' and the 'internet' are so intangible and abstract, that one way in which they can objectify this is to attribute to them human characteristics they can relate to. This is also evident from how children attribute human characteristics to Google or YouTube.

Online risk as a bad guy can be a representation held by the children who are less savvy, such as the Cautious Players (Class 4) because they have a negative perception of the internet and they have less skills, but it could also pertain to the Ambivalent Users (Class 3) who are often unsure about online safety.

Online Risks as a Red Flag on a Sandy Beach. Children's awareness of online risks can be compared to red flags on a sandy beach that indicate dangerous water conditions. Like going to the beach is a fun activity, children enjoy spending time online and they like the internet; it is also a useful tool. However, at times, upon arriving to the beach, there is a red flag indicating danger. At other times, when lifeguards are not on duty, there are no flags to indicate safety or danger, but children are still aware that the sea could be dangerous. They are conscious that risks are an inherent part of going online, and like the red flags signal, they know they need to be careful of these dangers before venturing for a swim. Children acknowledge the potential hazards they can find online, which include strangers, cyberbullying, inappropriate content and privacy risks among others. When children go to the beach, they are often accompanied by adults, and when adults see the red flags, they would

not allow their children to swim or leave their sight. However, adults might not always be able to accompany children online in the same way.

This representation shows that when children go online, they have an awareness that online risks exist, and being aware of these dangers has a positive aspect, as it can lead children to use safety precautions and be mindful of how they behave online. On the other hand, children could also be hyperaware and overly cautious, and this can instil a sense of fear that could diminish their motivation to explore the opportunities provided or take preventive action. Online risks as a red flag is a general representation that can be pertinent to all the 4 classes of children. All children, in different ways, were aware that there are red flags to be careful of online and were conscious that online safety is necessary.

Online Risks as a Hot Surface. Children also see online risks as a hot surface. When a hot surface is touched, the consequences are immediate, one is burned, and it is very easy to understand the danger. Once they have been burnt by the hot surface, they become more cautious of touching such a surface again. Similarly, those children who have been ‘burnt’ by the online risk are deliberately more attentive of such dangers. While this corresponds with findings that having experienced a risk enhances risk perception (Mascheroni et al., 2014; Smahel & Wright, 2014) having to experience the risk in order to be aware of it, can be an issue for younger children. Unless the surface is touched, the danger remains unseen, and if children need to experience the specific risk or its consequences to be able to conceptualise it as a risk, they can get harmed. If there are no other indicators that there is danger, a hot surface can result in significant burns. When the risks are tangible, either through their own personal experience, that of a peer, or else because they have to face consequences, it becomes less abstract, and children are able to perceive the risk better. This finding confirms that when children experience a risk, the discourse about the risk changes, which could indicate that the representation of the risk also changes in relation to that experience (Gruev-Vintila & Rouquette, 2007 & Thornberg & Knutsen, 2011).

The representation of online risks as a hot surface can pertain to most classes. It applies particularly to children who are Audacious Explorers (Class 1) or Ambivalent Users (Class 3) who have some risk experiences, and possibly to the Savvy Adventurers (Class 2), the ones who have the most risk experiences of all. This representation could imply that most children can understand the significance of specific risks better if they are concrete. This can be challenging, given the virtual nature of online environments, and because often, the risks are shrouded in fun, entertainment and exploration. It would not be ideal to teach children about online risks by exposing them to these risks in real life, because they could get burnt.

Online Risks as Singing a Song in a Foreign Language Without Knowing All the Words. When children sing songs, they do not always know all the words, particularly if it is a song in a foreign language. For the words they don't know, they often draw on a familiar language and they try to assimilate the pattern of sounds in the song to known words or phrases. They fill in the gaps with words that are already in their known language set. Similarly, when there are aspects of risks they do not fully understand, children fill in the blanks with information available to them which is not necessarily relevant to the risk, which can be compared to them trying to sing a song in another language but with words they invented or used from their native tongue. Children seem to be singing the whole song, but the words are incorrect, like when they use incorrect information to explain online risks. This information is often obtained from news media, fiction, and from friends' anecdotes. When they fill in the blanks with this information, the risks are anchored in this information and they become less threatening because there are less unknowns. These elements seem to have become part of the common sense thinking that children use to relate to their environment (Sammut et al., 2015). The unfortunate aspect of this is that such heuristics can hinder children's ability to assess the true nature of online risks.

When they fill in the gaps with incorrect information, children can either underestimate the risk or dismiss it. Alternatively, as evident from the focus groups, it more

often occurs that they blow it out of proportion and have unfounded fears, such as fears of being kidnapped and killed. Just like when children use other words and the song sounds complete, filling in the gaps creates a coherent story, but with incorrect information. This way of filling in the gaps can misplace their attempts to stay safe online. They can give importance and direct their safety measures to risks that do not warrant such importance and ignore the ones that they need to be aware of. As the focus groups show, when risks are blown out of proportion and children have irrational fears, they experience a sense of helplessness, rather than actively seeking to mitigate the risks. This is consistent with the findings that fears often hinder taking action when faced with risk (Breakwell, 2007).

This way of conceptualising risks might be pertinent to children in Class 4 – the Cautious Players who have less risk experiences but also less skills. Their lack of skills could be influencing children's critical abilities to assess risks rationally and challenge the information they come across. Not all children are able to question whether the song just sounds right, or whether the words are also correct. However, even children who belong to other classes might be using information from various sources to create a complete picture of the risks they do not understand.

Online Risks as a Game of Dodgeball. Children also seem to see online risks as a game of dodgeball, and they are better at this game than others: they can dodge the ball much better than others can. Children position themselves as better off than their peers when facing online risks. They seem to think that unsuitable behaviours online carried out by others are more problematic than when they engage in similar behaviours themselves. The optimistic bias (Breakwell, 2007; Cho et al., 2010) and self-other positions (Andreouli, 2010; Markovà, 2015) could pose a greater threat to children as they create blind spots and impact how children behave. When children feel invulnerable or think that they are less susceptible than others to online perils, they do not engage in safety behaviours. For instance, in the focus group discussions, some children did not consider sharing information about themselves

online as inappropriate. If they do not consider themselves as susceptible to online risks, because of self-serving biases or other factors, they would not consider oversharing of personal information as risky and they would not be able to fathom the issues related to such behaviour. The Audacious Explorers (Class 1) and the Ambivalent Users (Class 3) both have some risky experiences online and not sufficient skills, and thus the representation of online risks as a game of dodgeball could be relevant for these two classes.

Self-serving biases were identified from the focus group discussions and the results from the LCA seem to confirm the presence of these biases. What is being termed as self-serving biases in children's cognitions of online risks in this work, could be biases, but they could also be part of a maturation process or cognitive development that still needs to happen. These lay interpretations could mean that children have sufficient skills and also blind spots, but it could also mean that these blind spots are related to a lack of skills. Further research would identify whether the children still think they can dodge the ball if they possess relevant skills or whether this bias persists irrespective of skills. However, given that an awareness of cognitive biases does not even make adults immune to them, irrespective of whether children have sufficient digital skills or not, they do not only need to become aware of these biases but also be taught strategies to counteract their impact on their online behaviour. The findings by Cho et al. (2010) about adults' optimistic biases have significant implications for risk prevention which can be applied to children. Primarily the effectiveness of warnings is questionable, because this is more likely to influence the way children perceive others' vulnerability rather than their own vulnerability. When children think they can dodge the ball, they might not use tools available for their online safety, as the biases makes them feel invulnerable.

Online Risks as a Trapdoor they Know About. In contrast to the previous representation, the children who are skilled and have an awareness of online risks see them as a trapdoor they can easily avoid because they know about it. This knowledge enables them to

avoid falling into traps they come across online and react confidently and safely. Class 2, the Savvy Adventurers, are more likely to view risks as a trapdoor they can avoid, because they venture online, encounter risks, but their skills help them stay safe. Children in this class still have risk experiences online, and this cannot be ignored. Despite this, the Savvy Adventurers have the tools to manage them. An internet without risks for children is inconceivable, but with the proper tools, children can avoid the trapdoor and navigate safely.

Children using the internet and having skills that match their online exploration can be compared to them walking on a stage and they are fully aware that there is a trapdoor. This implies that children would have learnt both how to use the internet and also the related safety skills. The survey findings show that older children are more adept at using safety skills, which means that there might be younger children who are making use of online platforms without the relevant safety skills. The finding that three-fourths of children have experiences of online risk can be concerning. Even though having had risky experiences online does not directly result in being harmed by them (Livingstone et al., 2011a), such experiences are inherently precursors to harm, and the younger children are more likely to be harmed. Even when the younger children venture on the stage, they need to know of the trapdoor and what to do to avoid it.

Metaphors of the Internet

Children's cognitions related to the internet also reveal how they understand online risks. Each metaphor of the internet presented in Table 45 is explained in further detail below while also attempting to identify to which class of children it could apply to.

Table 45*Metaphors for Online Risks*

The internet is like...	Explanation	Class
A knife	Children see the internet as a useful tool which can also be used in a negative way.	Savvy Adventurers
A magical mean machine	Things seem to happen magically when they are online, but not all these things are good for children.	Cautious Players
A magnifying glass	Children explore and satisfy their curiosity online but at times they come across what burns them.	Audacious Explorers
A chain	The internet is a place for connections, but at times, these connections turn out to be dangerous for children.	Audacious Explorers
A tug of war	Children feel like they are pulled in opposite directions when they are online	All Children

The Internet is Like a Knife. Like a knife, children consider the internet to be a useful tool. However, they anchor their understanding of the internet in a widely disseminated metaphor that a knife is good or bad depending on how it is used. They understand that the knife can be useful in the hands of those who need to use it as a tool. For those who want to learn, explore and have fun, the internet can be good. In the hands of those who have bad intentions, the knife can be a deadly weapon. Similarly, those who use the internet to watch inappropriate material, to bully others or to talk to strangers are using this tool in a negative way. Moreover, when they are online, children are also interacting with other children or adults who might be using this knife in either of these two ways. Even if they themselves are using the internet sensibly, others around them might not be doing so, and thus this could result in problems. This awareness seems to be a characteristic of the Savvy Adventurers (Class 2) who seem to have more knowledge of online risks than their peers. They know first-hand that the knife can be used negatively.

The Internet is Like a Magical Mean Machine. On the other hand, some children do not consider their own or others' agency when using the internet. Instead they see the internet as a magical place where things happen. It feels like they believe that behind the curtain, very much like the Wizard of Oz, there is someone making things happen. Although these are often good things, sometimes the magic is the work of a dark wizard and bad things happen to children. This perception of the internet as a magical place, at times leaves children in awe, but when bad things happen, children are disillusioned, hurt and often feel powerless. This representation seems to be characteristic of the Cautious Players (Class 4) who very often play it safe online because they feel it is a dangerous place for children. They are often helpless when faced with online risks, because they do not have sufficient skills.

The representation of the internet as a mean magical machine is evident from the way in which children seem to relate to the internet and their devices, particularly for aspects they do not understand. They often tend to personify them making the abstractness of platforms like 'Google' or 'YouTube' more concrete, and it makes it easier for them to relate to them. Relating to these platforms as if they were persons, poses an issue that needs further research. Children could be transferring responsibility onto the 'machine' because they conceive it as a sentient authority figure, rather than being mindful that they are responsible for their online behaviour.

The Internet is Like a Magnifying Glass. A magnifying glass is a characteristic tool for scientists and explorers, or detectives. The magnifying glass functions to enlarge what it is focused on to provide a closer look and reveal more details. Children use the internet to explore and learn. The magnifying glass helps them focus on such experiences without prying eyes. However, at times, this exploration can lead children to focus on a bright light, and as a consequence damage their eyes. Online children can get 'burnt' from their online explorations if they come in contact with a 'bright light' or a negative experience, such as inappropriate images or videos, or material that is meant for adults. Children would have been lured in

through their curiosity or happen to stumble on such material while doing something else, and this could turn out to be a negative experience without having the proper tools to manage it.

At times, it is the children themselves who through the magnifying glass focus the sun's rays onto something causing it to burn. They can become a risk to others. However, this is something that the children are less likely to consider as suggested by their self-serving biases. The rules for online behaviour do not seem to apply to them. While they feel others should behave adequately online, they allow themselves more freedom to behave how they want online.

This representation of the internet seems likely to belong to children who are Audacious Explorers (Class 1). These children have the second highest risk experiences online, including higher content-related risk experiences and they do perceive some threats online. Driven by their exploration needs, these children occasionally focus their magnifying glass on a bright light, and they are hurt or hurt others.

The Internet is Like a Chain. Another representation of the internet that could be characteristic of the Ambivalent Users (Class 3) who perceive risks online and have some risk experiences is that of the internet being like a chain. This chain serves to link and connect people to each other. Likewise, the internet is a place for connecting with existing friends, new friends, sometimes family members and also celebrities. Children use these connections to explore their identity, make new friends and experiment with relationships. At times children come across a broken link that ruins the chain. These broken chains occasionally turn out to be a hacker, a fake profile, or someone trying to deceive them. While children are looking for the possibility of making new friends or romantic interests, they might come across these broken chains that tarnish their experiences.

The Internet is like Being in a Tug of War. The rope in a tug of war is pulled in two opposite directions by two forces. Children seem to view going online as being the rope in a tug of war with two opposing forces pulling at each end. At one end, the rope is pulled by the

possibilities of exploration, having fun, hanging out with friends, making new friends, watching videos and playing games, among other things. On this side of the rope, among these possibilities there are the 'red flags' that indicate danger and the 'bad guy' who might also be adding his weight to the pull. This is the side of the risky opportunities. On the other side of the rope, pulling in the opposite direction are children's fears for their own safety, the rules their families set, the dangers they could come across, safety measures, and what they hear in the media about online risks. This side is the safe harbour where safety is almost guaranteed. The downside of a tug of war is that only one side can win. Thus, if children remain in the safe harbour they miss out on opportunities, but if they venture to the side of risky opportunities, they compromise their safety unless they know how to handle online risks.

This representation of the internet can reflect the reality of children in the four different classes. However, for each class, the winning side is different. For the Savvy Adventurers (Class 2), the risky opportunities side is a clear winner. These children go online knowing there are risks, but also knowing how to handle them. For Cautious Players (Class 4), the safe harbour wins. Children are more concerned with staying safe and thus they are less ready to venture out exploring, or they might need some more time to feel comfortable doing so. For the Ambivalent Users (Class 3) the rope generally remains in the middle, with no side winning over the other, because the pulls balance each other out. In the case of the Audacious Explorers (Class 1), the risky opportunities side has a slight advantage over the other side, but once again, neither side is winning. Online, all children experience the pulls of risky opportunities and of safety, however, the experience of this tug of war depends on the background of the children going through it.

Shared Beliefs

Apart from these metaphors, there are also some shared beliefs that embody children's lay thinking, attitudes, and also feelings and actions towards online risks. Table 46 presents these shared beliefs and the following sections explain them in further detail.

Table 46

Shared Beliefs Related to Online Risk

Shared Meaning	Explanation	Class
Eyes on the prize	Children focus on the benefits they can attain and disregard what should be of concern online.	Audacious Explorers Ambivalent Users
Waiting for the apple to fall	Children take a passive approach when they are online rather than an active one.	Audacious Explorers Ambivalent Users Cautious Players
Hidden in plain sight	Children hint at sexual risks online, but they do not talk explicitly about them.	All Children
Cyberbullying bursts your balloon	Children link cyberbullying directly to suicide.	All Children

Eyes on the Prize. Children seem to go online wearing blinkers to anything that could potentially be dangerous, when they are focusing only on the prizes they can attain. Having fun and connecting with others, together with the positive emotions associated to them are these prizes. They become more important than the dangers of advertising, predators, algorithms, hackers and data grabbing, and children are selectively blind to these possible warning signs or safety matters because of the benefits they can attain. Children know about these risks, but rather than seeing them as dangers, they believe they are obstacles they can cheat or bypass. Children are willing to focus selectively on the benefits they can attain online, and these become more important than the dangers that should concern them, and thus they disregard them. For the sake of making new friends, children might be willing to accept anyone who sends them a friend request, including strangers who might pose a danger to

children. Even though they criticise their peers who do, they justify their behaviours when they engage in such activities. Youn (2005) identified how benefit perceptions are more important than risk perceptions when researching online privacy and adolescents, and it seems that this is also true for other online risks and even for younger children.

Some children, possibly the Audacious Explorers (Class 1) and the Ambivalent Users (Class 3), seem to go online ready to bypass these dangers, irrespective of what they are, and focus their attention solely on the benefits they can gain. Even though risks and opportunities are related, and exposure to risks is associated to resilience (Livingstone et al., 2011b), it cannot be assumed that resilience develops automatically and for all children in the same way. This lack of considerations for these dangers can create misperceptions that these risks are trivial or irrelevant, and as Goodwin et al. (2004) found in relation to HIV and AIDS, such misperceptions can hinder children's ability to make informed choices. Children need tools to realistically assess online risks, so that when they are faced with these potential dangers, they do not ignore they exist, but they know how to manage them while still attaining the prizes they seek.

Waiting for the apple to fall. The survey identified that the most popular activities with the participants were the more passive ones such as watching videos and playing games. This seems to indicate that the claim that the internet provides children with opportunities needs to be interpreted carefully. The activities that children carry out online might not necessarily be the ones that give them more opportunities. The internet is commonly used as a pastime and as a means of entertainment. This is not inherently problematic, and the role of media as entertainment and a pastime has been long-since established (Whiting & Williams, 2013). Yet, looking at the ladder of opportunities (Livingstone & Helsper, 2007), participants in this research were less inclined to engage in activities that encourage creativity and critical thinking. It seems that when they are online, children seem to consume whatever is available to them uncritically.

The focus groups findings also confirm this passivity. Children mention using the recommendations provided by YouTube to decide what to watch online. Rather than actively seeking the videos that would interest them, they rely on the algorithms that suggest videos which are similar to the content they are used to watching. These filter bubbles pose the danger that children do not take an active role to explore beyond the videos they customarily watch, limiting their exposure to new ideas and new learning. This passivity could also expose children to inappropriate content. Videos that are related to what the children are watching, but not appropriate for their age, such as adult versions of children's videos, might easily be recommended by the algorithms. Adults might not always be aware that this is happening or as Bucher (2017) suggests they might be confused by how algorithms function.

This way of interacting with the internet is likely to be present in all the four classes of children. However, although it cannot be confirmed with certainty, it is probable that those children who are more active and creative online are more likely to be from the Savvy Adventurers group (Class 2) rather than in the other classes.

Hidden in Plain Sight. Whenever children discussed the risks posed by strangers and inappropriate sexual content, they were very evasive about them. It seems like these risks are hidden in plain sight. Very often children referred to them vaguely and their non-verbal behaviour, such as long pauses, indicated they were uncomfortable around these topics. None of the participants mentioned grooming or pornography explicitly, although in the older girls' focus groups, there were some references to sexual videos. In the survey, around one-third of children tried to solve things on their own when they came across pop-ups and 2 in every 10 children did nothing about them. The reason could be that some pop-ups show sexual content, and children would not feel comfortable sharing this with someone else.

This shared belief is not being associated to a particular class, but it can apply to all the classes identified. These lack of openness about the sexual issues hiding in plain sight could be related to the participants' ages, but also to the participants' gender. Boys might

have been reluctant to talk about sexual issues because of the researcher's gender. However, inhibition to talk about sexual issues is highly likely to be a reflection of the local culture. In Malta, one way that the strong Catholic values impact culture is that often there is a lack of open discussions about sex and sexuality. Although Maltese society has become more permissive and secular, sexual taboos still permeate and sexual issues are not explicitly discussed, particularly within families with children. Sexual education in schools is also surrounded by controversy (e.g. Micallef, 2015). Within the local culture, educating children about sexuality and the human body from a young age might be considered as exposing them to a subject that is associated to later developmental stages.

While addressing sexual issues can instil curiosity in children or risk exposing them to issues such as child abuse and pornography when they are still very young (Bailey, 2011; Levin & Kilbourne, 2008), ignoring them might prove to be a greater risk to them. During one of the focus groups a nine-year-old boy spoke of strip clubs and girls wearing thongs in the game GTA, and I found this rather disconcerting. Although media effects theories are inconclusive about the effects of media on children, games can be one way through which the objectification of women becomes normalised and internalised by children. The risk migration hypothesis (Rovolis & Tsaliki, 2012) shows an association between online and offline risks and encountering sexual content online could possibly imply that the children are also facing such risks offline.

Cyberbullying Bursts Your Balloon. Children associate cyberbullying directly to suicide. As one of the children in the focus groups explained, the repeated harassment one receives online is comparable to blowing air into a balloon until it bursts. When one blows air into the balloon over and over again, the air pressure inside the balloon increases. The balloon expands until it reaches the point when it can no longer contain the air and it just bursts with a loud pop, shredding itself into pieces. This refers to the breaking point where children who are being repeatedly bullied online commit suicide because they can no longer handle the

situation. When referring to cyberbullying, the example children refer to mostly is Amanda Todd's untimely death after she was cyberbullied.

This understanding of cyberbullying, which seems to be shared by all children, irrespective of the class they belong to, does not take into consideration its other, arguably less extreme, psychological and physical harmful effects. Children consistently refer to the extreme consequence of a child taking their own life. This can be a reflection of how the media refer to cyberbullying. It is very common that when media refer to cyberbullying stories, they also refer to children who committed suicide after enduring cyberbullying. Additionally, as Young et al. (2017) found, when media reports suicides, the cause is often attributed to cyberbullying and other contributing factors are ignored. Moreover, this association could also be a result of which examples parents and educators use to explain cyberbullying to children when they are teaching them about online risks. The effects of cyberbullying on psychological wellbeing such as self-esteem and mental health can be difficult to convey to children in a tangible way, unless they are presented in a child-friendly way. However, when the effects of cyberbullying are objectified in relation to death, this can be more tangible for children to understand and it is possibly why this is the association that remains.

This association between cyberbullying and suicide clearly exposes the important role that globalised media play in shaping children's representations of cyberbullying. There are no known cases of children who committed suicide in Malta. Yet, across all focus groups, children were aware of cyberbullying stories and associated these directly to suicide. This representation conveys a powerful effect of cyberbullying and the fact that it belongs to children aged 9 to 12 years old is disquieting. Although the prevalence of cyberbullying is around 15%, it is disturbing to consider what could be going through the mind of a child who is being bullied online if they have this representation of cyberbullying.

Children and adults need media literacy skills to interact critically with news. In this way they can understand better how to ‘read’ news headlines and stories and what to look for to ensure that they are getting information from the correct sources. Stories such as the recent suicide of TV and radio host Caroline Flack attributed to the negative media coverage she received, can be used to engage in conversations according to the children’s maturity level about such issues. However, when news media is used to teach children about risks, it should be used critically to help children avoid basing their risk perceptions on availability and representativeness heuristics.

Factors that Shape Children’s Social Representations of Online Risk

The representations identified pose intriguing insights into the children’s worldview in relation to online risks. Adults seem to take for granted that children go online because they enjoy it and that they don’t think twice about the dangers. However, listening to the children’s voices challenges this assumption. Children’s representations of online risks and the internet indicate clearly that children are aware of the need to protect themselves from these risks, and that they feel the pull in different directions between exploring online and staying safe. Moreover, children are not only aware of the need to stay safe, but some of them have a negative perception of the internet and they feel quite helpless and disempowered when they think about the dangers and the consequences of online risks.

The social representations identified seem to emerge from various factors. Children’s experiences, their self-perceptions and their skills are very influential. However, findings evidence that the way children relate to others, particularly their families and peers, and the role of globalised media have an important impact on the development of these representations. The findings confirm that children’s representations arise from the way they interact with the milieu that surrounds them (Augoustinos & Walker, 1995; Ivinson & Duveen, 2005). The model presented in the literature review with the connected child at the

centre, interrelating with the immediate and wider contexts does not only impact the children's exposure to risks but also their sense-making of online risks.

As Duveen (1996) proposed, children engage with several representations available to them in relation to online risk. However, as hypothesised not all these representations are created by children specifically for online risks. When children's representations of online risks are based on stereotypes and filling in missing information, they seem to be making use of peripheral elements of other representations of risks in the physical world and adapting them to online risks. In their environment, children engage with such representations based on their own experiences and understanding of online risks and these are shared with their peers.

When children take a stance vis-à-vis others, and through this process establish their own identity, an interesting characteristic emerges. In the focus groups, children positioned themselves as better suited to handle online risks than their peers who are no different to them. Through these self-serving biases children identify themselves as competent to handle such risks. These biases are also evident in the LCA, however in this instance, children were more likely to claim that their friends were similar to them exhibiting the false consensus effect. These cognitive biases pose the need to reflect further on the role of children's cognitive development in relation to their representations.

It would also be interesting to investigate whether the representations identified remain stable over time. If the representations identified pertain to different classes as proposed, these representations might remain stable, unless there are significant changes, because it seems that class membership depends on children's patterns of online activities. However, in the short span between the survey and the LCA corroboration exercise, there seemed to be an increase in children's savviness. If this is an actual increase in savviness and not a result of self-serving biases, it might imply a shift in representations as well. A longitudinal research spanning different years could identify whether the representations of online risks identified stand the test of time or whether they change.

Implications of the Findings

The following sections will present the implications of the findings. A major implication of this work is that children's gender, age and the time spent online might not be as significant as they are portrayed to be in public discourse when discussing children and online risk. This is also evident from the varied representations identified for children within the same age group. However, the issue of whether preadolescents should be on SNS can still be discussed. Another important implication is the need to address the lack of media literacy across the different levels with whom children interact. Children are lacking media literacy skills, but so are their parents and educators. Children attribute expertise to their parents and this also brings about the implication that parents need to live up to this expectation. The digital context is as important as any other context that children grow up in. Yet, within this context, children do not seem to have sufficient role models to support them. Thus, they also need to have good digital role models to support them online. The major implication of this work is that children's online safety is a shared responsibility, and this is discussed before recommending how this responsibility can be shared among different levels in the subsequent sections.

Looking beyond age, gender and time spent online

Most research studies predominantly identify age and gender as significant elements when understanding children's online behaviours and their relation to online risk. Moreover, a prevailing belief among adults is that the amount of time children spend online is also an important factor. The findings from the LCA together with the different representations identified within the same age group challenge these notions. Specifically, the findings related to screen-time challenge an aspect of the dominant adult discourse, who are often concerned that children spend too much time online. This was not an issue that emerged from the focus group discussions with children, except for an occasional mention anchored in adults' discourse that too much time spent using the computer could damage their eyes. From the

survey, children's self-report about the time they spend online does not seem to indicate an issue of excessive use, except possibly with a small percentage of children. Moreover, the time spent online was also not a significant factor in determining children's risk perceptions, risk experiences, skills and safety measures. This corroborates the recommendations presented by Blum-Ross and Livingstone (2016) that although time spent online needs to be taken into consideration, the context in which children go online is more important.

These findings imply that when discussing online risks, it is more useful to focus on children's patterns of online behaviour and their level of maturity. In comparison to basing education according to children's age or gender, this is a more complex solution as it needs to take into consideration the different ways in which children make sense of their online experiences and online risks which were identified. This shift in focus can be considered more difficult to put into practice. For parents, it is easier to calculate the time children spend online, rather than assessing the contextual factors that impact their children's wellbeing. However, when considering that parenting and education already involve an inherent focus on the child's wellbeing, and that parents can be in the best position know what their children think and feel better than anyone else, it can become less daunting for parents to discuss online risks with children.

Should Preadolescents be on Social Networking Sites?

Despite the research participants being all below the age of 13 and legally they should not be on SNS, several participants had and used their own profile, more so in the older children's cohort. This could be an indication of the pressure children, and the adults supporting them, experience regarding their presence on SNS. This gives rise to a Pandora's Box of implications. When children set up SNS profiles without their parents knowing, they are misrepresenting their age online and this increases the probability of facing risks such as interactions with adults, who might not have good intentions. Children are aware of this risk although they do not seem to fully understand its implications, as their representation of risk

as a bad guy seems to indicate. Moreover, when children hide their online behaviours from parents, they cannot seek their support if they have problems, as otherwise they would reveal that they set up SNS profiles.

When parents help children set up SNS profiles and input a fake date of birth, they are modelling such behaviours to their children. Rather than understanding that there are rules that apply to online behaviour, children learn that online rules and regulations can be suspended or that somehow ‘the internet can be cheated’, and this contributes to children’s representations that they can dodge online risks.

The LCA findings suggest that age is not necessarily a factor which impacts online risk perceptions and risk experiences give rise to another issue. While SNS use age as a cut-off point when one can sign up for a profile, it could be argued that this could be a misguided and simplistic solution, and that the decision whether or not a child should be on a social network or not needs to be based on factors such as the child’s maturity, rather than age.

However, the prevalence of risk experiences among adolescents, the negative representations they have of the internet, and their heightened awareness of online risks, point to the question whether preadolescents’ use of SNS could be contributing to this. Another question that can be posed is whether preadolescents should be using SNS at all. This is not an easy question to pose, and it is easy to steer away from it and accept that children use SNS. However, given children’s negative experiences online, this is a solution that might be considered unless parents are sure that their child is mature enough to be on SNS. Nonetheless, this does not solve the problem for those children who set up SNS without their parents knowing. For such situations, SNS providers could introduce age-verification procedures, or the possibility of having child-profiles on SNS that eventually develop into adult profiles once the child grows older.

The Lacuna of Skills Needs to be Addressed

Children's representations show that they are conscious that going online is closely associated to risks. Some of these risks are tangible, while others are portrayed in abstract and fantastical ways that are often unrealistic. These representations imply that children need media literacy skills to be able to use new media effectively, critically and safely. When children start using the internet, they need to also start learning the related skills. As part of such skills, children need to learn about online risks in a balanced, tangible, realistic way that challenges their biases, does not induce fear, and encourages them to be online critically. Children should not first be allowed to use the internet and eventually, possibly after children have already had negative experiences or having learnt inadequate ways of behaving online, they are taught about online safety. Learning to use the internet and learning to do so safely should be considered as mutual components of the same process.

This dire need to establish or rather, re-establish media literacy education for all children is primarily important so children learn prevention and self-management strategies. This enables them to be able to avoid risky experiences online or know what to do when they encounter them. While children require adequate support structures, they also need to be equipped with skills and tools that can help them manage online risks as they are often alone when they come across risks online. Children can be the first line of defence when they are faced with online risks, and only adequate media literacy education can provide this.

The value and importance of media literacy can also be explained through the tenants of social representations theory. Once social representations develop, they become so implicit that they hardly allow critical thinking to take place. This is problematic because social representations guide behaviour. For instance, if children act on the basis of the self-other positions they hold, they can dare more if they perceive themselves to be invulnerable. Representations are adapted to children's lived experiences and reflexivity becomes necessary to bring social representations into consciousness and to challenge the misconceptions within

these representations (Markovà, 1996; 2017). Reflexivity and critical thinking are key elements of media literacy and these skills can help children become aware of their misconceptions so that they do not influence their behaviours.

Media literacy could also be useful to challenge the misconceptions present in children's representations. For instance, to challenge the belief that children are immune to online risks, using messages with real life experiences might be more effective. Rather than instilling fear, education about online risks should be realistic. This helps children understand what is problematic in specific online behaviours, rather than only understanding that there is something inherently bad about being online, without knowing exactly what it is. In fact, it is evident from children's discourse that when videos related to online safety are used in the classroom, children can relate to them and do mention them in discussing their perceptions of risk (Smahel & Wright, 2014). Making children aware of their biases and contest them can help them attain a more realistic perception of how issues like talking to strangers, hate speech, cheating, rule-breaking and attention-seeking behaviours can have serious consequences not just for others but for them as well. When children have a more realistic understanding of online risks, they will be able to engage in safer behaviours online.

The findings seem to indicate that parents also seem to be lacking in media literacy skills, but it is the teachers' lack of such skills that can be considered the most problematic. While this requires further research as it was not the main scope of this work, it also implies that media literacy education needs to be disseminated both to parents and educators, in order for children to have the necessary support. This need for digital skills often goes unnoticed because most children and adults know how to use digital devices, and this is often mistaken as having digital skills. While digital skills include such competencies, these are not sufficient for the abilities to also analyse, evaluate, interpret and create media content (Leung & Lee, 2011; Livingstone & Helsper, 2010). This is why the term media literacy is preferred, as it

encompasses all these abilities and also includes a focus on values and ethical behaviour online.

Conceptualising children as digital natives (Prensky, 2001) has been criticised because it seems to assume that children have the required digital skills (ECDL Foundation, 2014). This might be contributing to the lack of importance that is given to media literacy education. This type of education needs to be reintroduced in the curriculum for all children, considering how important it is that children are well-versed not just in using new media, but also in understanding their impact and approaching them critically. This education ideally involves children and parents, possibly engaging in shared activities and learning together, such as through online media literacy sessions. This gives tools to both children but also to parents who can acknowledge the importance of media literacy and promote communication about the topic within the family. Educators can also be involved to ensure a concerted and sustained effort to increase media education rather than it being presented in sporadic instances. However, this requires competent educators to engage children and families in this process, which also implies that educators need to possess these skills themselves and knowledge how to impart them.

From the representations identified, it seems that children are lacking skills related to the mindful use of technology, information literacy, critical thinking and digital safety skills. Ideally media literacy education should take into consideration children's maturity level rather than just their age. Instead of being over-protective or overbearing, media education should aim to instil preparedness in children and a focus on values so that when they are faced with problematic situations online, they have the necessary competence to act without being harmed. However, media literacy education needs to start when children are very young, and they start dabbling with new media. In turn this implies that parents and educators need to acknowledge the importance of this from when children are very young.

Parents Need to Live Up to the Expertise Children Attribute to Them.

The family is a place where children find both support when they are online and at times, it can also be the place where children encounter risks. At times parents set rules for their children and occasionally, they themselves model behaviour which bends these rules. A case in point is when parents do not allow children to have a profile on Facebook but they give them access to their account to play games. Parents' actions could be a result of several factors, such as lack of skills, irresponsibility, naivety, or a reflection of the possible confusion that parents might have when they are trying to help children in the best way possible. In the case of SNS, parents can set rules for when their child can start using SNS, but if they feel pressured to set up an account for them so that their child does not feel left out, it is difficult to stick to the rules. Being left out can have repercussions on the child's wellbeing. However, when members of the family bypass rules and hold self-serving biases, children observe and model such behaviours which might then contribute to the finding that children have self-serving biases in relation to online risks.

Participants mentioned on several occasions, and in all focus groups, that they often asked adults, mainly their parents, for help. In the survey, 4 in 5 children said they preferred to get information about online safety from their parents. Participants' mental model of adults includes expertise and knowledge, which is why they refer to them when they needed help. This is a positive finding, because it means that children do seek help from adults when they need it. Yet, children also have expectations about these adults' roles, because they expressed disillusion when adults behaved unwisely or irresponsibly online. This further highlights the need that parents and educators have adequate means to help children (Kim & Davies, 2017), so that the expertise children attribute to them is justified.

It was a conscious decision to focus this research only on the children's perspective, in order to give children a voice, which is often lost amidst the more dominant voices of adults and the media. However, I never assumed that the children would be separate from their

family context. This is why several of the recommendations that follow are targeted towards parents and families. However, families also need to be supported. It is impossible and unrealistic to expect families to have all the knowledge and support available for children all the time. Ideally, where parents lack skills, they are a role model for children in how they learn and seek support. Although support does exist, such as the Besmartonline! talks for parents, very often the parents who need this support do not make use of it (M. Spiteri, Personal Communication, 2016), and this could reflect the findings by Hart Research Associates (2011) that the parents' level of education impacts where they seek information. Parents are concerned about children's online safety (Farrugia & Lauri, 2018), but if supporting children online is not a priority for some parents, it might also mean that they have other more salient challenges to deal with as parents. These could be financial challenges, time, resources, and family issues among others. The challenges Maltese parents are facing, technological or other, is an area that warrants further research.

The parents who adopt restrictive mediation practices are often the ones who feel they have less skills (Livingstone et al., 2017). Children mentioned that one of the ways in which parents mediated their online behaviour was through rule-setting, and often they did not like such rules. Further research is necessary to identify whether this is an indication that parents are still unsure of how to support children online, or whether parents are exercising both enabling and restrictive practices as needed. Some focus group participants mentioned that their parents accompany them when they are using the internet, which means that there are parents who seek ways to actively support their children. The imbalance in the roles of mothers, who tend to be more restrictive, while fathers offer more practical support, is also an issue that could be researched further to identify whether this is related to skills, perceived skills, children's perceptions of the parents, gender roles within the family, or a combination of these or any other factors.

The complex reality in which children go online often requires tailor-made solutions that it sounds almost unfeasible for parents to support them. Parents need to be competent, knowledgeable and able to adapt to different situations and needs. While this is a challenge, it can be made less daunting if it is broken down into simpler steps, such as suggesting parents to take an active interest in what children do online and establishing open and honest communication regarding new media and the associated risks. This would be beneficial during preadolescence, where matters of online safety become more salient due to an increased exposure to online platforms and due to increased resistance by the children to follow their parents' rules. It is also important that parents do not remove the child's technological privileges as a punishment as the children might not want to discuss problematic matters with them for fear of not having access to the devices which connect them to their world.

Children Need Good Role Models

Parents are important role models for children. As Prensky (2011) argued, digital wisdom is taught and learnt, but for children to learn it, ideally, they need to have role models who possess this digital wisdom themselves and who can impart it, and unfortunately, this is not always the case. When parents bypass rules, ignore age-ratings for games and apps and do not have good digital literacy skills, they model such behaviours for their children as well. On the other hand, when parents model how to make good use of new media, and take into consideration safety matters, they are being good role models for their children. However, it seems that the latter style is less common among Maltese parents and most of them are rather confused about how to handle children's online behaviours. Children's contributions to the focus groups attest to this and provide further evidence to the claims made in Farrugia and Lauri (2018). It could mean that parents cannot be role models, because they themselves do not feel competent using new media and supporting their children. Parents who feel less competent are more likely to use restrictive mediation strategies while discounting active

mediation strategies. In the identity development process, when significant adults in the child's life encourage rather than restrict, this is more helpful for children to develop competence. This is also applicable to mediation practices. Restricting children from doing activities online can be counterproductive in more ways than one. Apart from reducing their opportunities, children often find ways to bypass these restrictions and can put themselves in more danger. Instead, an enabling mediation strategy such as engaging in conversations with children about what they do online, sounds simplistic, but it is a solution that can open possibilities for dialogue. When parents do not know enough about what their children talk to them about, they can also model how to look for information and what information to refer to.

Very few children mentioned they get support from their educators. This is a rather disturbing finding when considering the amount of time children spend in schools and in other non-formal and informal education settings. Only 1 in 4 of the survey participants claimed to access the internet from school, which might indicate that technological tools are not yet well-integrated in the Maltese education system. According to the findings, after parents, teachers are the second source from whom children would like to obtain information about online safety. It is telling that despite this fact, very few children actually mentioned their educators in the focus group discussions as a source of support. However, in each focus group held, children asked me whether they would be having further discussion sessions about the topic as they were enjoying it. This could be an indication that children want to discuss the role of new media in their lives in their educational context, but this need is not yet being addressed. While acknowledging that being an educator is not an easy feat, this shows the need that educators be conversant with technology and to incorporate technology and new media in their educational practices. Educators need to be supported with adequate skills and resources to be able to be reference points for children. Children need good adult role models to support them and help them reflect on the implications of what they do online. Good role models do not necessarily have all the answers, but children can also learn from what their role models

do when they are faced with such situations, especially if their guardians and educators model critical thinking abilities and a reflection on values. This can also challenge the moral relativism that is often present among peers (Hagen & Jorge, 2015), which is also evident during the focus groups when children did not consider violent content as problematic.

Children's Online Safety is a Shared Responsibility

The dominant adult discourse often points to technology or the internet as the root of anything that is wrong with children. This is because childhood is often associated with vulnerability and openness to exploitation rather than skills or resilience. However, it is hardly the case that technology is the sole problem, but it is more often the way that children use it and interact with it that creates issues. Moreover, it cannot be assumed that all risk is sought after. Risky behaviour can also be unintended. Some children might be obeying the rules and happen to be at the wrong place and the wrong time. This does not automatically result in children being harmed. Online risks, like offline risks cannot be completely eliminated, and to learn and develop resilience, children need to explore and sometimes make mistakes in a supportive environment. Within this environment, parents and educators need to engage in proper dialogue so children can become aware of these risks and start learning about them. Like a preventive flu vaccine helps the body fight a virus when exposed to it, when children know about risks, they can handle them better when they face them. Blaming technology seems to be transferring responsibility onto the 'machine' rather than assume or attribute responsibility where it belongs. Knowing how to stay safe online can prevent children from being exposed to online risks, but more importantly, it helps them manage and cope when they inevitably come across such risks. This confidence can be derived from an environment that supports them and their online explorations.

It is not just parents who are responsible for children's online wellbeing, but there are other stakeholders who share this collective responsibility. This is particularly so because parents of children whose need for support surpasses that of other children might not always

be willing or able to help them, and unless their wellbeing becomes a collective responsibility, their online behaviours might exacerbate their difficult situations or vice-versa. Like the social representations develop at the level of the child, the immediate context and the wider context, the shared responsibility to safeguard children online also lies within these three systems. This includes the wider context of regulation and policy, the immediate context through parents, peers and educators and the practices they adopt, and the level of the children themselves supported by their immediate context.

Listening to children's voices about online risk and analysing their representations of online risks, confirms the need for children to acquire media literacy skills as a buffer against these risks. These skills do not appear out of thin air, but children need to be exposed to them in their immediate context through their peers, parents and guardians, their extended family and their educators. Nonetheless, from the findings it appears that families are not always the best role models, or else they do not have sufficient resources to support children. What is even more concerning is the seeming absence of educators from this equation. While some children mentioned learning about online safety at school, this seems to be sporadic rather than a consistent endeavour, and the role educators currently have in supporting children online is far from ideal.

It is possible that it is difficult for parents and educators to take on the role of digital literacy educators because they lack the knowledge and skills to do so effectively. This would imply that digital literacy training for parents and educators is a must, and yet is not given sufficient priority. Although it might sound like a far-fetched suggestion, it could be fruitful to introduce the concept of children's online safety as part of prenatal courses for parents. This can sensitise them to the issue, particularly when it comes to their child's digital footprint, which parents can contribute to even before they are born.

Children's online safety could also be addressed during parenting courses. However, there is another lacuna in this aspect. In Malta, there are three main parenting courses

available which are offered by the Foundation for Social Welfare Services (FSWS). The first one ‘Inrabbu l’Uljedna Ahjar’ (Improving the Way We Raise Our Children) does not include any aspects related to digital literacy or online safety. The second programme ‘Parental Skills Programme for Parents of Adolescents’ is specifically for parents of adolescents who have issues with drugs and alcohol abuse. The programme includes a session about “Dealing with Peer Pressure, Media and Leisure Time”, but this does not cover sufficient content related to digital literacy. Moreover, only those parents whose children are facing issues of substance abuse would have access to these courses (Government of Malta, 2019). Finally, the ‘Incredible Years’ parenting programme aims to support distressed families where children are at risk of developing conduct disorder (Abela & Grech-Lanfranco, 2016). Parents are referred to this programme by a professional and topics include play, positive responses and regulating emotions (G. Zammit, personal communication, February 16, 2020). This means that there are hardly any courses for parents facing general parenting issues and for parents of younger children.

There also are some parenting courses organised by private entities, but these are also mainly targeted towards parenting adolescents. Moreover, the national strategic policy for positive parenting (Abela & Grech-Lanfranco, 2016) does not mention the challenges that parents face because of new media and does not provide specific recommendations in this regard. Thus, parents’ involvement in supporting their children online may be overlooked. Acknowledging the role of new media in children’s lives and the need to support parents in this aspect are crucial steps in supporting Maltese families.

Livingstone et al. (2017) found that parents use an enabling approach to digital mediation when they feel proficient. A wider accessibility of parent training would be useful for those parents who are interested in learning more about supporting their children online and striving to be better parents. Schools, local councils and local parishes can all be involved in providing such courses that target parents of children of all ages. For instance, children’s

online safety can also be discussed with parents during information sessions when their children are preparing for occasions such as receiving the Holy Sacrament or Confirmation where parents have to attend. Parent training would not completely solve the issue, as not all parents might see the need for this, but it would be a valuable resource nonetheless. Digital parenting is less daunting when it is framed as part of the general parenting strategies, and the solutions are consistent with other parenting messages such as the role of good communication within the family.

In 2019, the Ministry for Education and Employment (MEDE) introduced 'My journey' through which children in secondary schools can choose vocational subjects aside from academic ones. Media Literacy is one of the subjects. It is commendable that the subject is accessible to children, even though it is currently accessible only to those children who choose the subject. In State Schools, Ethics education is available for those children who do not study Religion. Here children are taught skills and values and the digital aspect is also included within this (L. Zammit, personal communication, March 17, 2020). Those students who do not choose these subjects do not get any training in media literacy apart from the sessions held during the PSCD lessons. While it may not be realistic to offer Media Literacy and Ethics to all students because of time constraints and the number of subjects chosen, ideally skills taught in these subjects can be included across the curriculum.

In terms of teacher training, the Faculty of Education at the University of Malta has been proactive in view of the changes related to the 'My Journey' programme and introduced the possibility of specialising in Media Literacy Education and in Technology-Enhanced Learning. The teachers who chose to specialise in these areas will be specifically trained in these aspects. Trainee teachers in other subjects also discuss issues related to media literacy (G. Cremona, personal communication, March 30, 2020). This is positive as it helps sensitise teachers to how media literacy aspects can be included across the curriculum. Every effort

should be made so that teachers are proficient in using technology to enhance the way they teach, to be role models for children and able to support them online.

Technology is often scapegoated as the source of all risks, but risks come about through the interaction with these tools, rather than just because of them. When parents cultivate good relationships with their children that include both enabling and restrictive mediation practices, they can protect them from online risks (UKCISS, 2012; Livingstone et al. 2017). Besides, educators and the education system can also contribute significantly to protect children from such risks. It would be useful to research whether parents and educators perceive a need to teach children digital skills and to whom they attribute this responsibility. Understanding their attitudes towards new media, children's digital literacy skills and online safety would prove useful to address these as a shared responsibility.

Establishing a Common Understanding of Risk

Eliminating risk is neither possible and more often than not, nor entirely useful. Acknowledging and understanding online risks can serve as an impetus to adopt precautionary measures, and exposure to online risks also has a role in developing resilience. The pragmatic paradigm adopted in this work provides objective knowledge of the prevalence of online risks that is interlinked with a subjective understanding of these risks, depending on who is experiencing them, and the several factors associated to online behaviour. This subjectivity can be what causes the distinction between the way adults comprehend online risk and the way children do. Adults and children look at online risks from their own subjective viewpoint. Adults' perceptions of online risks can reflect their motivation to protect children, the fears they pick up from the media, and their own knowledge and skills, among other factors. Children's sense-making of online risks reflects their developmental needs for self-exploration and connections with peers, their fascination with technology, their own and peers' online experiences and their own cognitive and technological skills. It is also possible that the differences in risk perceptions between adults and children result from the

different benefits they perceive. Children perceive benefits which adults might not be aware of.

Reflecting on children's representations of risks can help adults shift from their adult-centric narrative in conceptualising these risks to a more child-centred approach. This is particularly important when considering that what is obvious to adults about online risks is constructed differently by children (Wagner et al., 1999). Using a child-centred approach makes it easier to apprehend why children would be very concerned about their game profiles being hacked and that to them, talking to strangers might simply mean making new friends. Adults would not be concerned in the least about the former, but overwhelmed with concerns about stranger danger in case of the latter.

As evident from children's representations of online risks, proper assessment of these risks, is obstructed by biases, incorrect information, and lack of support or digital skills. Some children perceive risks but engage in online risk behaviours nonetheless, because some of these risks are sugar-coated with fun, connectivity, and the fulfilment of belonging and developmental needs. The way in which technological tools are designed could be an inherent aspect of technology that hinders children from perceiving risk. Coupled with the fact that fortunately harm does not always happen after a child has encountered online risk, it can be very difficult for children to fathom how a little box with a colourful screen and endless possibilities for fun and passing time could be dangerous to them.

Understanding children's diverse perspectives enables a common ground for discussion and education. This might not make adults' and children's perspectives align, but adults can learn about children's perspectives. The aim of this work was to identify children's shared representations of online risks and it seems that these vary according to specific characteristics, but surprisingly, these are mainly related to patterns of online behaviour rather than demographic factors. The following section will present recommendations for practice and policy based on children's social representations of online risks and their implications.

Recommendations for Practice and Policy

The primary purpose of this mixed methods research was to identify the way preadolescents represent online risks. The topic was chosen specifically to give a voice to children and understand their own cognitions of online risk. This contrasts the dominant discourse that often portrays children as being at risk when they are online. The premise is that children's representations of risk can impact their online safety behaviours. It is not being presumed that these representations alone result in safety behaviours or lack thereof, particularly because research about the psychology of risk often has conflicting results (Breakwell, 2007). However, since these representations develop from and reflect the children's context, they are an important factor to be considered when understanding online safety. Not all preadolescents understand online risks in the same way; despite being in the same age group, it is evident that there are intra-group differences (Potter & Litton, 1985). These cognitions reflect anchoring and objectification processes related to their own and their peers' experiences, offline risks, stereotypes, and adult and media discourse among others. Children also have a perceived invulnerability from online risks, and they position others as being more at risk than themselves. These cognitions are more common among those children who have less skills. However, not all children are naïve.

Some children possess media literacy skills that enable them to be confident and safe online. These children still experience online risks, but they have better outcomes. Media literacy skills are important and much needed, but even more important is the need that children's online safety is approached as a shared responsibility among the contexts in which children go online. These include their parents, guardians and educators, but also wider systems that include policymakers, industry and the media itself. Children's representations of online risks originate, circulate and reflect these systems and thus, shifting these representations would also require a shift in all these systems. Children particularly wish and expect adults to be reference points for them. This indicates the need that adults refrain from

assuming that children have the knowledge and skills to be online because they are digital natives and understand that they also can contribute through their own knowledge and skills to help keep children safe online.

The United Nations' Convention on the Rights of the Child (Office of the United Nations High Commissioner for Human Rights, 1989) established rights to participation, provision and protection as children's fundamental rights before the internet became widely accessible. I reviewed and reflected on the applicability of these rights in the online environment within the local context in another forum (Farrugia, 2019). However, it is worth re-stating that a concerted effort involving all stakeholders is necessary to ensure that the balance between children's rights to provision, participation and protection is maintained. The following section presents the recommendations for practice and policy that are being proposed based on the findings and their implications. Table 47 presents a summary of the findings, the main implications and the recommendations that will be expanded upon in the following sections, based on which stakeholders they are directed towards: families, educators, policy, industry or researchers.

The findings indicate a dire need for media literacy education. This is not a new concept, yet it seems that its role and importance are being hugely underestimated. Thus, most of the recommendations will focus on increasing the awareness of this need and to enhance this type of education for children, parents and educators in Malta. Given the central and pervasive role that new media have in our lives and especially in children's lives, this important aspect of education as a shared responsibility among the various stakeholders cannot be overlooked.

Table 47*Summary of Recommendations*

Finding	Implication	Recommendation
Children are avid internet users and they have several risk experiences online.	The digital context where children grow up is bringing about new challenges.	The digital context needs to be given importance from when children are born. It also needs to be researched further to better understand its significance.
Children consider the internet as a place where fun and danger co-exist.	Some children can be very apprehensive about going online and this can limit their access to opportunities.	Realistic education about online risks and having good role models of using the internet to access opportunities while staying safe.
Children have a negative perception of the internet.	Some children are hyperaware of online risks and this creates unnecessary fears.	The news media industry needs to be more balanced in how stories about children and new media are presented and children need skills to read news articles critically.
Children are more aware of tangible risks as opposed to less tangible ones.	Children are better able to protect themselves from risks that are tangible which they can understand.	Simulation games and real-life stories can be used for educating children about risks that are less tangible.
Children are sometimes misinformed about online risks.	Children do not have sufficient information or do not know how to check the information they have about online risks.	Educating children on how, where and with whom to check and verify information.
When children perceive benefits from what they do online, they are less likely to perceive the risks involved.	Children will ignore safety behaviours when they perceive they are able to attain benefits.	Incorporating critical thinking and mindful online behaviour in education.
Children have self-serving biases	They perceive themselves as immune to online risks.	Helping children become aware of these biases and how they can influence their behaviour to promote digital safety
Children who have skills are more confident online	Children themselves are the first line of defence to protect them from online risks.	Educating children about prevention and self-management strategies for digital safety can be addressed at school.
Families support children, but sometimes they also expose children to online risks.	Families are unsure about how to support children online.	Identifying ways to support parents in digital parenting is important.

Summary of Recommendations (cont.)

Finding	Implication	Recommendation
Educators are barely present in supporting children online.	Educators might not have sufficient media competencies themselves or the training to impart them to children.	Training in media literacy for educators is a must.
Children have different risk perceptions, risk experiences, skills and not all use safety measures.	Children aged 9 to 12 cannot be considered as one whole group, as there is heterogeneity among this age group.	Education interventions need to be tailor-made for the type of experiences children are having online, possibly through the use of technology itself, rather than being a one-size-fits-all kind.
The differences among children depend on patterns of online behaviours rather than on demographics or the time spent online.	Focusing on children's age, gender or the amount of time spent online is a misguided solution.	While demographic factors are important, education should also focus on children's patterns of online behaviours, by incorporating the use of technology in media literacy.
Children recognise and identify with the four main categories identified through the LCA.	These categories are relevant to understanding how children relate to online risk.	Further research is needed to evaluate the role of these classes in shaping children's representations of risk.
Children are more likely to associate themselves with peers whose online behaviours are similar to theirs.	Peers can help but also hinder their friends.	Peers can be involved in media-literacy education to increase the possibility of helping others.

Recommendations for Families

The family is the first place where children come across new media, and they are also exposed to social representations within this context. It is of utmost importance that families are sensitised to the need to enable children to explore while being safe online. The primary responsibility for this lies with parents or guardians, but siblings and members of the extended family such as cousins and grandparents could also have an important role.

Adults need to engage in active mediation strategies and talk to children about their online activities to learn about what they do and see online and spot any problems early on. Active mediation is one of the enabling mediation strategies that is used by parents who are

skilled and do not have high risk perceptions (Livingstone et al., 2017). However, this is not always possible if parents, do not have sufficient resources, namely the time and skills to do so.

Educating children about grooming and about the dangers of sexual content can prove useful when children start developing sexually and exploring their sexuality online. These topics need to be addressed with caution and not ignored, so that online, sexual risks are no longer hidden in plain sight. To acknowledge children's sexuality requires a shift in the way sexual education is carried out in the Maltese culture. An education process can help children think critically and reflect on values, instead of imparting a list of permissions or restrictions.

Sexual education needs to be evidence-based and tailor-made to the experiences and maturity level of the child. As Rovolis and Tsaliki (2012) suggest, discussions about pornography need to be part of sexual education. This can demystify the allure of sexual practices that are out of the ordinary, such as pornography and prostitution, so that when children come across such practices online, they are not taken by surprise and carried away by their curiosity. For Malta, this can be considered a controversial suggestion. One step that parents and educators can take before introducing this topic is to engage in both restrictive and active mediation behaviours such as monitoring what children do online, filtering adult content and discussing what the children see and do online. However, this presumes that parents have the knowledge and confidence to engage in these mediation practices. This is not always the case. Moreover, even if parents try to monitor their children, it is not possible to do so all the time, and children can be exposed to sexual content when they are not at home or at school, so sexual and media education that includes a focus on values has a key role. It can also be argued that sexual education should be part of education in general and treated as part of life and of human nature to shed the local taboo surrounding sex. Parents also need to be educated, particularly in relation to games and age ratings, as it seems that not all parents are sufficiently aware of PEGI ratings for games that indicate which games are appropriate for

their children, and the ones meant for adults, which often contain sexual, violent and gory content.

In light of the above and of the role parents have in supporting children it is being recommended that:

- *Parents should realise the importance of media literacy and digital skills from when children are very young, possibly before their children are born. By acknowledging new media as one of the contexts in which children will grow up and develop, parents assume their responsibility in engaging with this context and keeping children safe online.*
- *Parents should learn to be proficient in the use of new media and learn the associated digital skills to model the mindful use of technology and a critical mindset towards technology, while imparting values to their children.*
- *Parents should encourage their children to use new media to support their interests and education, while also encouraging them to take part in other 'offline' activities.*
- *Before introducing any new medium, device or app to children, parents should learn how to use it themselves and know its functions, safety features and possible issues. This includes learning about age ratings for digital games to identify which ones are appropriate for their children.*
- *Parents should lobby with the industry to ensure it provides sufficient information about use, risk and safety features of any app, device or online service that can be used by children. A group of parent activists can be established for this lobbying, and this group could endorse and recommend those providers that provide such family-friendly measures to motivate others to take this up.*
- *Parents should engage in conversations about media use with their children, so that a safe space where children can talk about any issues they face is established within the family. Parents can adapt the use of enabling and restrictive mediation strategies according to the needs and particular situation of their child or children.*

- *Parents should seek to introduce sexual education to children at an early age and according to the child's maturity so that children's curiosity is addressed through the right channels.*
- *Parents and siblings should not expose children to risks such as inappropriate content, leaving children unattended online or bypassing age restrictions to join SNS.*
- *Parents should seek physical or online sources of support when they need help with any of the above recommendations.*

However, parents cannot do all these things without adequate support and the relevant information and skills. These recommendations can be enabled through and within the model of shared responsibility being suggested in this work.

Recommendations for Educators

Given the time children spend at school and in other non-formal and informal education settings, it is also being recommended that to support children:

- *Educators should assume part of the responsibility to educate children about new media.*
- *Educators should be proficient in the use of new media and use these technologies during their lessons. Through this, educators can model how technology can be used for learning and accessing opportunities through a mindful and critical engagement with technology. Those involved in teacher-training should thus ensure that media literacy education and technology-enhanced learning are given due importance when preparing teachers and educators for their roles.*
- *Educators should engage in training to keep abreast of new developments in new media and educational technologies. This continuous professional development should be included as part of the requirements for the school to attain and maintain the e-safety label so that the educators within the school are committed to such training.*
- *Where possible, educators should involve families in their media education strategies to establish an ongoing and consistent effort to support children's online safety. Educators*

could use the Online Learning Platform used by the school to suggest activities children can do with their parents as a follow up to material discussed at school.

- *Educators should be involved in designing and implementing a campaign for parents to help them reflect on how they are supporting children online. Educators can use evidence from their experience with children to identify areas which the campaign should cover. One such aspect could include the age-ratings for games and age restrictions for other online services.*
- *Educators should develop lesson plans (that could also be cross-curricular) based on specific digital competencies and values that are identified as lacking.*
- *School Management Teams (SMT) support teachers in the use of technology in the classroom, through encouraging such use, providing examples of good practices, providing the necessary infrastructure and in training and development related to these aspects.*

Another way in which children can learn skills is through peer-led digital literacy education programmes. Research findings (Clarke, 2009; Smahel & Wright, 2014) showed that children do support each other online. This support was also evident during the focus groups. Savvy children can be trained in peer education to improve the way they provide support for their friends and classmates in learning digital skills. Children might be more open to learning if this comes from their friends. However, such peer-led programmes would need educators and peers to be trained in peer education and well-prepared, and that before they are implemented, the necessary infrastructure and support systems for peer-leaders are in place. This ensures that such initiatives are not counter-productive or cause other issues, such as the bullying of the peer leaders.

Children tend to have peers who are similar to them, and thus they are likely to have peers whose online experiences, perceptions and skills are similar to theirs, and this does not depend on their ages. This has implications for the suggested peer-led education programmes.

If the peer leaders are outside the children's immediate circle of friends, the interventions might not be as effective. Thus, if peer-led programmes are implemented, it might be beneficial to have peer leaders from different classes identified in the LCA to ensure that the education programme can trickle down to children with different patterns of online behaviours. Peer-led programmes can also help children develop self-efficacy. When they are engaged to support peers, this can reinforce their self-efficacy, and also their skills. This was found to be associated to more protection behaviours (Char et al., 2009). Thus, it is also being suggested that:

- *Educators should identify ways to involve peers in media education, ideally through a peer-led media education programme. Maltese schools would benefit from exchanges with international schools where peer-led programmes exist. Understanding how such programmes are implemented can be fruitful in adapting these systems to the local context. Training for peer leaders and teachers can be also carried out in an international context to enhance the experience. The role of child peer leaders should be acknowledged as part of the child's school leaving certificate.*
- *If a peer-led education programme is not possible, school should continue to foster an environment where peers support each other by creating collaborative activities. This can also be a way to prevent bullying. One such collaborative activity could be the school's preparations for Safer Internet Day, which is celebrated annually in February.*

Recommendations for Policy

It is crucial for policy makers to understand that for children, taking risks is a part of their developmental process (Clarke, 2009). It is encouraging to note that the National Children's policy published in 2017 mentions several policy objectives related to children and new media across different aspects of children's lives, particularly their education and leisure time (Ministry for the Family, Children's Rights and Solidarity, 2017). Based on the tenants of promoting children's holistic development and well-being, their protection, welfare and

empowerment, the policy promotes the responsible use of the internet among children and their guardians to safeguard children from cyberbullying, sexting, grooming, privacy risks, inappropriate content and other forms of online abuse. Moreover, the policy also emphasises the role of critical and creative thinking. The policy's objectives, including the ones specific to online safety are set to be attainable through collaborations with the relevant stakeholders. It is mentioned that the Office of the Commissioner for Children will be monitoring the implementation of the policy, however no other specific entities are mentioned. Ideally, the children's policy would also specify which entities will be asked to collaborate for its successful implementation. The recommendations for practice suggested in the previous two sections can also be promoted through the National Children's Policy.

Other relevant policies do not include sufficient provisos to support the children's policy. The Positive Parenting Policy (Abela & Grech Lanfranco, 2016) puts forward the need for parenting that revolves around the children's best interests. The policy is aimed at "building and sustaining a positive culture and infrastructure for parents and their children, where parents are supported in various ways to fulfil their role to the best of their abilities" (p. 6). Although the introductory statement emphasises both preventive and interventive measures to support families, there is a larger focus on interventions with children and families considered at risk. While this is commendable, there are no objectives specific to families who are not facing the problems mentioned in the policy (such as poverty and domestic violence) but who are facing day-to-day parenting issues. Moreover, the aspect of online risks as one of the issues that children and families face is completely overlooked.

The usefulness of media tools is acknowledged, as television and the internet are proposed as a modality for disseminating parenting information to parents. However, the importance of parents having awareness and training in media education is not mentioned. It is being suggested that the Positive Parenting Policy includes the following suggestions.

Given that 96% of parents who give birth for the first time attend Parentcraft courses, section 3.2 on Positive Parenting in the Health Sector could include:

- *The notion of a digital footprint should be introduced during Parentcraft courses. At this stage parents can be mindful of what information to share online about their unborn children and the children's digital footprint. This would also sensitise parents to the need for media literacy skills from when children are very young.*

As a continuation, Section 3.3 on Positive Parenting within Childcare Services and Schools could include the following:

- *Positive parenting courses should be available to all parents and efforts should be made to reach out and recruit as many parents as possible for these courses through schools, health centres and paediatricians. The courses are to include information about media literacy. Through these courses, parents can learn the tools to engage with media critically themselves and they can also learn the necessary skills to support their children as they start engaging with new media and technology. To increase the uptake of parents who attending parenting courses, parents can be given vouchers as part of their children's allowance to use on educational and technological devices for their children.*

The National Curriculum Framework (Ministry for Education and Employment, 2012) establishes the mastery of digital literacy as one of its aims. The lack of sufficient digital skills identified in children might imply that this policy needs to be re-evaluated and possibly revised. Digital literacy as a cross-curricular theme might not be well-suited for the pervasiveness of new media in children's lives. Moreover, while it is positive that 'My Journey' allows students with different inclinations to pursue VET education at Secondary School, offering Media Literacy only as a VET subject can create issues in the perception of the subject. This could impart the message that media literacy is only necessary for those children inclined to pursue VET subjects rather than for all children. It is therefore being recommended that:

- *Media education should be established as part of the curriculum for all children as an active effort to enhance children's and parents' digital skills.*
- *An information campaign is held for parents and educators to help them understand the need for media education and to instil a positive attitude towards the subject.*
- *Computer coding for children should be established as part of the curriculum to teach children digital and media literacy skills. When children learn to program, they start to understand that the internet is not magical but it is people who create the internet through writing lines of code.*

In the National Digital Strategy for Malta between 2014 and 2020, (Parliamentary Secretariat for Competitiveness and Economic Growth, 2014), it was mentioned that digital citizenship would be included as part of the curriculum where parents and educators collaborate to provide children with skills for the safe and intelligent use of the internet. The current findings indicate that there is much left to be done in this aspect and the update of this policy for the coming years could specify how this should be tackled. This policy also suggested the establishment of forum for internet safety and minors as an operational body. The MCA together with other stakeholders established the Besmartonline! for this purpose. The Maltese Safer Internet Centre (SIC) is currently in its fourth phase. Recently the responsibility for the project has shifted from the MCA to Tech.mt.

In light of this is it being recommended that:

- *The next National Digital Strategy should make provisions that the efforts to establish the SIC in Malta are sustained and the Besmartonline! project is renewed and allocated funding to fulfil its mission.*
- *The Maltese SIC should continue with its efforts to enhance online safety for children and adults alike. Particularly, it should increase its efforts to reach a wider target audience around Safer Internet Day to ensure that online safety messages reach children, parents and educators.*

- *A nation-wide e-safety campaign should be held periodically through the main TV stations but also through using adverts on social media platforms used by children. This campaign should include catchy phrases and jingles that children can remember to help them be more mindful and critical when they use the internet.*
- *Grants and funding opportunities, and possible tax benefits should be made available for start-ups, service providers and developers to enable the development of family friendly tools and measures as suggested in the following set of recommendations.*

Recommendations for Industry

Apart from the recommendations for families, educators and policy, the industry itself can contribute to this concerted effort at protecting children online. The industry also has a responsibility to assume in this regard, but often, protecting children online is not always one of its priorities, because it costs time and money to develop such systems. Nonetheless, if parents, policymakers and legislators increase their pressure on the industry, and the industry is offered some incentives in return, children's online safety becomes more of a priority.

Instead of using age as a threshold, one solution would be for SNS providers to include a digital skills assessment as part of the signing up procedure, to ensure that anyone signing up for the service, child and adult alike, has the relevant digital skills to engage in a critical way with the platform. One such assessment could be based on the 24 digital competencies identified by the DQ Institute (Park, 2019) which also take into consideration the child's maturity. Such an assessment would be useful to identify areas where the child still lacks specific skills that need to be addressed before joining a SNS. This result of this assessment would then lead the child to a skills training programme that the child can follow to learn such skills. Perhaps this is an idealistic suggestion, that might not go down well with the industry, but if funds or tax incentives are offered by the Ministry for the Family, Children's Rights and Social Solidarity service providers might be more open to developing such tools.

An alternative way for industry to support children and adults understand if the child has sufficient skills and maturity to be on SNS could be developed. This could be a self-assessment tool that helps children and adults identify areas where skills need to be developed before deciding whether to set-up SNS profiles. If they do decide to set-up SNS profiles instructional videos could be made available so that children and adults familiarise themselves with the safety features of any app or platform they use. Such videos could teach about how to use privacy settings, how to block and report unwanted contact, and how to engage with the platform critically. Children also need to learn about how apps and platforms are designed with auto-play and endless scrolling functions to keep the user engaged without being active. This helps them learn to be responsible for what they do online and encourages interactivity.

Andrews et al. (2020) identified that tools such as instructional videos and quizzes with feedback were found to be effective in influencing safety behaviours, but also concluded that one-size-fits-all solutions are not ideal. One of the contributions of the current research is the recognition that preadolescents cannot be considered as one category of children, particularly in terms of what they do online, their skills and how they think of online risks. Children also have different modalities of learning and of processing information. This implies that education and training cannot be universal, but ideally, they target different learning styles, children's different ways of interacting with technology, and the risks involved. Given that this is a difficult solution to implement, Artificial Intelligence can be put to good use for this purpose. Games can be used to teach children about online risks. Using Artificial Intelligence, these games can be programmed to adapt to children's knowledge and skills and provide content that that builds on their present knowledge and skills.

Apart from Artificial Intelligence, Virtual Reality can also be put to good use in supporting children online. Based on the representation that risks are easily understood when they are tangible, virtual reality simulation games can teach children about risks, by providing them with an immersive experience that mirrors real life. Williams et al. (2019) identified

simulation games as one way in which privacy behaviours can be taught. This can be applicable to help children learn how to mitigate online risks, as the simulation can present them with a context that resembles real life. Children can learn about risks in vivo but in this safe virtual space without being exposed to real risks.

The following are recommendations for developers and service providers that can support children's online safety.

- *Clear instructions about how to use any device or app that children can use including information about its safety features, possible risks and how to prevent them or mitigate them, and also the privacy policy should be provided. Ideally these are provided both for adults and also in a child-friendly format for children.*
- *Reporting and blocking tools should be easily accessible for children and parents and that any reports received are followed-up in a timely manner.*
- *As part of their Corporate Social Responsibility, service providers could offer training for children whereby they create accessible instructional videos that include safety tutorials for their peers. Before registering a new device or signing up to a SNS, these videos should be made mandatory so that all users are aware of the potential risks and safety features of the device, app or service.*
- *Developing virtual reality games about online risks, to teach children how to manage such risks in a realistic but safe setting.*
- *Developing and implementing age-verification strategies to ensure children are not signing up or accessing services that are not appropriate for their age.*
- *Developing platforms for collaborative media literacy education between parents and children, that are programmed to use artificial intelligence to identify children's needs and provide content to target their specific needs.*

- *The content and the platforms created to address media literacy should be accessible in English as well as Maltese, to meet the needs of those parents and children who prefer content in Maltese.*

A final recommendation is targeted towards the news industry who often uses sensational headlines that serve as click-bait, particularly where children and new media are concerned. Educational efforts can be undone by such headlines that overemphasise the risks. This can contribute to media panics and rather than disseminate accurate information, it increases parents' and children's anxieties and spreads misinformation, especially if children do not fully understand the information provided. Media contribute directly to the development of social representations and thus, it is being recommended that:

- *News media should adhere to their ethical responsibility to report news with veracity and integrity, particularly in items related to children and online risks. While they are obliged to report negative stories related to such matters, they should also present to the general public a balanced view which includes the different factors relevant to the story. They should also strive to report positive stories and examples of good practice and include information where children and parents can seek information and support if they are facing issues related to online risks.*

Recommendations for Further Research

Children have a right to be protected, and they also have a right to participate and make their voice heard in matters that concern them. Child-centred research is one way through which their voices can be heard. Primarily, the effort to identify which children are facing which risks needs to be sustained. Following the surveys conducted locally by the MCA, Malta has participated in the latest EU Kids Online survey (Lauri & Farrugia, 2020). This enables an analysis of the current situation in Malta but also a comparison with the other 19 countries which participated in the survey. Participation in comparative research on

international scale is an asset for a small country like Malta and every effort should be made to participate in such studies.

Further research into the relationship between specific representations and membership to different classes would give more insight into how to support children with different patterns of online behaviours and understanding of risk. Such a study could have children answering the same set of survey questions used for the LCA. Each participant would be assigned an identifier so that when the LCA is carried out, participants can be categorised into the respective classes. Following this step, a random sample of identifiers would be drawn from each class and these participants would also be invited to participate in a qualitative phase where social representations pertaining to each class could be analysed. Instead of the qualitative phase, children can also be given a set of statements related to the different representations identified in this research to identify whether class membership is correlated with specific representations. Such research could also be carried out with children outside the 9 to 12 age brackets to identify whether the same classes can be found or whether the results would be different.

A research gap that emerged from this research relates to children's exposure to sexual and pornographic content. Children seemed reluctant to discuss these online experiences in the focus groups, which means that children could be having such experiences and not enough is known about them. Given the lack of open discussion about sex and sexuality in the local context, further research is necessary to identify the role sexual and pornographic content have in children's lives and how this could impact their wellbeing and attitudes towards sexuality. A mixed methods research could identify the prevalence of children's exposure to sexual content online and also how they relate to and understand this content.

Another research gap identified is the need to understand the role of cognitive development in children's sense-making of risks. A cognitive assessment scale can be used together with a Likert scale with statements reflecting different perceptions and cognitions of

online risks. These can be distributed to a random sample of children to identify and correlations between cognitive development and attitudes towards online risk. Including age, gender and other demographics as other measures in this research would allow further testing of the hypothesis that such demographics are unrelated to the way children think about online risks.

Parents seem to be facing multiple challenges in supporting their children, and further research with parents is also necessary to identify these challenges and learn what strategies parents use to overcome them. A qualitative research involving both parents and children would enable the comparison of parents' mediation practices with children's experiences of risk online, to identify any associations between the two. It would be particularly useful to understand whether children of parents who use a combination of enabling and restrictive mediation practices encounter more, less or different kinds of risk from those children whose parents use one type of mediation. Based on the results from such an investigation, a survey for children and parents could be carried out to verify these findings in the population. Furthermore, researching parents' attitudes towards technology and techno-parenting can identify the challenges they face.

Further research is also necessary to identify the obstacles that educators have in supporting children online. It would be useful to identify what skills educators have, but also their perceptions of self-efficacy in imparting such skills, as this can have an important role in the support they provide. Once these obstacles are identified they can be addressed to reinforce the concerted effort and joint responsibility to keep children safe online. The 24 competencies identified by the DQ Institute (Park, 2019) can be developed into a questionnaire for adults and a child-friendly version for children to establish which of these skills children and the adults around them have. Interventions can then be targeted towards enhancing those skills which are found to be lacking. Parallel to this, systemic interviews with children who have experienced harm from online risk, and their parents or guardians, other

family members, their educators and possibly peers, would provide insights into factors within the child's environment that could impact their exposure to risk.

The Researcher's Journey

In this section, I will discuss how my thoughts have developed throughout the course of this work, how I impacted the research and how the research impacted me. I started this work from a techno-positive perspective, an attitude I feel I still possess. However, this stance is now more nuanced, and I feel that my understanding of online risks is less naïve and more realistic.

Upon embarking on this doctoral journey, I was familiarising myself with the work of the EU Kids Online network and the claims that risk, opportunities and resilience are often associated, and that risk does not directly lead to harm (Livingstone et al., 2011b; Livingstone & Haddon, 2012). These findings influenced one of my biases and reinforced my techno-positive stance. I started this research thinking that children's voices needed to be heard, because of my preconception that adults were inflating the online risks out of their fears for their children's safety. Alongside media panics, I wondered whether the perils that exist online were being blown out of proportion. While the findings show that this is partly true, this research process has challenged these preconceptions and I can now acknowledge that the situation is more complex. I understand that there are risks online, and children can come across these risks, and most children are unscathed by them. To support children, these risks need to be acknowledged across the different systems children interact with, and not ignored. Acknowledging them can cultivate a pro-active approach rather than a reactive one. This increases media literacy and builds resilience, which can shield children from being harmed when they come across risks.

I feel that my techno-positive stance was useful for listening to children's voices and experiences. Despite being an adult and a researcher, I could interact with children from a non-judgemental position and I was appreciative of the positive aspects of using the internet.

This stance also made me more attentive to the negative aspects and helped me ask probing questions so that I could understand their experiences better. I still acknowledge my position as an outsider to children's world and regardless of my efforts to suspend my biases, this might still have created some barriers for children to express themselves, particularly for boys because of my own gender.

Through the process of this research, I had discussions with children but also had the opportunity to discuss the topic with parents and educators, and this also informed my work. While I still believe in the possibilities of technology, I now realise that there are several factors that can interfere with children fully accessing opportunities and staying safe online. While children's autonomy cannot be undermined, during preadolescence they still need to learn specific skills and have adult guidance, as their technological maturation does not happen automatically when they pick up a technological device.

When people found out about my research topic, they often asked me for advice, at times about their own children, but sometimes even about themselves, often because they felt they had issues of technological dependency or that they were spending too much time on their phones. I also struggled with this during my own work; at times technology was a welcome distraction and I had to take measures such as removing specific distracting apps from my devices to help me focus. These experiences made me realise that technology can be an issue for adults as much as for children. Adults who are, or should be, more aware of themselves and in control of their behaviour struggle with technology themselves, so it cannot be expected that children will effortlessly have the tools to manage themselves. I feel it is incongruent when adults scapegoat technology as the root of all issues with children and fail to acknowledge that it also creates issues for them. Through this stance, they can fail to appreciate technology's potential or to make an effort to break it down into manageable pieces of information or steps through which they can support themselves and their children.

I am aware that I am not a parent and that I make several recommendations for parents. These recommendations might be related to one of my biases of having grown up in an environment where parents and grandparents were considered an authority. I consider parents as being part of a system where they have a very important role in helping children learn about values and how to handle themselves. Ideally this is done in an authoritative way rather than an authoritarian one, so that the children can also learn to become critical thinkers in the process.

Through the course of this thesis, I have met several parents who feel lost and helpless when it comes to their children's online behaviours. I realise that parenting is not a straightforward process and it has a steep learning curve, with good days but with a higher proportion of days where parents struggle. However, through this work, I am trying to put forward the notion that digital parenting, although it might need some additional skills, is no different than parenting. The process needs to begin early on in childhood and not after children have established set patterns of behaviour (such as when a toddler is given a phone to self-soothe) as these can become very difficult to change. Some parents themselves admit struggling with issues of dependency on their technological devices, so it is very difficult for parents to help their children when they are struggling themselves. This is not the only struggle. Parents have to juggle several responsibilities within the family, and technological mediation can be an added burden, particularly when they have children of different ages, with different personalities who require different strategies. This implies that parents also need to find support structures, to be able to find help when necessary. This is why I emphasise that children's online safety is a shared responsibility and I also present recommendations that target educators, policymakers and the related industries.

This work has also given me a newfound appreciation for quantitative research methods. The research I had carried out prior to this thesis had always been qualitative. Undertaking quantitative research felt daunting and initially I doubted its value for

understanding the human condition. Exploring the integration of both quantitative and qualitative research through a mixed methods approach based on pragmatism, has helped me appreciate the value of both methods and how they can contribute to each other. Qualitative research provided a depth and a richness of understanding of children's own experiences, and although I still feel a preference towards it, I realise that quantitative research, particularly how I applied it for the LCA is very intriguing and it also provided interesting and useful insights into children's online behaviours and the factors involved in encountering online risks.

When I was approaching the conclusion of this thesis, there was a moment where I felt like I was holding a container with different bits and pieces that I was trying to sort out. I was wondering whether, apart from some answers, I have uncovered even more questions. I found this an interesting parallel to dealing with the unknown that online risks can bring about for children and adults. Moreover, Trafford and Leshem (2008) explain how a doctoral journey begins with a research gap and that while in the end there are some answers, other gaps emerge. This work has provided insights into how children make sense of online risks, but also uncovered the need for further research about how to support children in their online endeavours and their support systems. I realise that there are no simple or clear-cut solutions, online risks cannot be avoided, and this makes the provision of a proper media literacy education a top priority.

Strengths of the Study

The mixed methods approach adopted for this work and the three different phases of research are one of the main strengths of this work. This research has also addressed the research gap that existed in relation to Maltese preadolescents' understanding of online risks. The extensive sample gives clout to the findings. Moreover, the findings in relation to this age group enabled a considerable amount of evidence-based recommendations for policy and

practice to be suggested. These strengths are presented in more detail in the sections that follow.

The Mixed Methods Approach

One of the main strengths of the research is the mixed methods design adopted. The vast majority of studies about children and online risks that were reviewed, adopted either a single approach, either a qualitative, or more frequently, a quantitative design. In this study, each phase informs the subsequent ones, and in the discussion, I could integrate data and theory together abductively. The intersubjectivity possible through the pragmatic paradigm enabled an objective analysis of the context in which children go online and where they experience risks, and a subjective understanding of their sense-making of these experiences. The survey identified that children generally have a negative perception of the internet and that 3 out of 4 children had had negative experiences online of a technical or interpersonal nature. It was through the focus groups, that the different representations children have of online risks could be identified. The negative perception was confirmed, but other cognitions, such as self-serving biases, also emerged. It would have been difficult to identify these cognitions solely through a quantitative design. Through the open-ended nature of the qualitative component, children could speak of what was relevant to them. However, it was through the LCA that the reasons why these different cognitions exist in the same age group could be explored. The LCA results challenge the misguided notions that age, gender and the time spent online are factors that impact how children understand and experience online risks and identified that children's patterns of online activities and behaviours are more important. Through a triangulation of data, the findings can also be transferable to other contexts, particularly because both the LCA findings and the focus group findings are supported by the results of the verification exercise.

Preadolescents' Sense-Making on Online Risk

As discussed, there is no research that focuses specifically on children aged between 9 and 12 years and their understanding of online risk, using a child-centred and a mixed methods approach within the Maltese context. Thus, another strength of this research is that it filled a specific void and provides children's perspective through their own voices. This contrasts the adult discourse and the media discourse which scapegoat technology. The children's perspectives are a warning that these discourses can often be limiting and reductive, and can then lead to misguided solutions to help children curtail online risk for children. Apart from this, the considerable sample size of participants in the different components of the research, and particularly in the quantitative component makes the findings reliable.

Evidence-based Recommendations for Policy and Practice

Through this research, existing policies and practices could be evaluated in light of the findings. The recommendations provided reflect the implications of these results. Another strength of this work is that these recommendations for policy and practice are evidence-based and reflect a reality that needs to be addressed, instead of being based on assumptions and the dominant discourse that is portrayed by the media. Moreover, through focusing on children between 9 and 12, the specific cognitions and needs pertinent to this age group could be singled out, and this further ensured that the recommendations suggested are suitable for their needs. I aim to present the recommendations identified to the various local entities who are in a position to implement them.

Limitations of the Study

There are also some limitations that have to be considered when analysing the implications of this research. These limitations related to the participants whose voices remained unheard, the tools used and the time lapse. Since these limitations can impact the results of the study, every effort was made to mitigate their impact.

The Participants

One limitation of the study relates to the exclusion of those children whose parents did not consent to their child's participation in the research. The reasons why parents prohibit their children from taking part can be several. While it might be that some parents fail to return consent forms to the schools by the deadlines, it can also be that parents distrust research, that they want to protect their children's privacy or else that there are other family issues or specific issues related to the topic that they do not want their children to disclose. While the latter might be only a few individuals, their stories remain untold. The survey had a substantial number of participants, so this is less of an issue for the survey, but for the focus groups and the LCA exercise, many more consent forms were distributed than the number of children who actually participated in these phases. Some children might also have been excluded from participating because of the way the teachers selected the school classes to participate. Among these untold stories, there could be children with intellectual or other difficulties, or children who are affected by the digital divide because of their socio-economic status or other factors. To identify whether these parents and children have different needs, face different challenges or have enough support, other means of exploring their experiences need to be found. One such way is the use of drawings and associative networks as suggested by De Rosa (2002) for those children with language barriers.

The Tools

Although measures were taken to ensure the validity of the survey tool, some questions might have been difficult for the younger children to understand. Although in the survey, the number of questions was kept to the least minimum possible, it was still rather lengthy, and participants could have experienced respondent fatigue. This happens when participants tire out while responding to a survey and the quality of responses deteriorates (Lavrakas, 2008). If it was clear that a child stopped answering the questionnaire, these were

discarded. However, it was very difficult to identify any other questionnaires impacted by respondent fatigue, and any such responses could have impacted the results.

When planning the LCA, the variables and covariates to include were considered carefully to ensure that they were relevant to the study's aims. The variables were those categorical variables directly related to risk, while the covariates were chosen because of their hypothesised influence on risk. These items were also discussed with the supervisors, but they were arbitrary choices nonetheless. Class membership could also depend on possible other factors that were either not included in the variables or that could have not been included because they were not asked in the survey. The tool for the LCA corroboration exercise was based on the results from the LCA. While the tool has face validity and it was pretested with children, it is acknowledged that the tool can be imperfect. One flaw is the similarity between the descriptions for the Audacious Explorers (Class 1) and the Ambivalent Users (Class 3). This was necessary as the two classes were very similar except for the different risk experiences and the descriptions had to be kept as simple as possible for children to understand and differentiate, and as neutral as possible in order not to introduce social desirability bias. It could be that the difference between Class 1 and 3 was not sufficiently pronounced in the descriptions, which also could have impacted the LCA findings.

The Time Lapse

One of the limitations of the research is the time lapse between the first point of data collection and the termination of the doctoral work. Since the research was carried out on a part-time basis, this took around 6 and a half years. In relation to children and the internet, there can be changes that happen in the span of a few years. A case in point is the Musical.ly app that children mentioned in the focus groups. This app was then merged into TikTok in 2018, and its popularity has increased rapidly, becoming the 7th most downloaded app between 2010 and 2019 (DeNisco Rayome, 2019). The children who were 9 years old during the first survey are now in the phase of early adolescence and they are not able to benefit from

the findings of this research. To counteract this issue, the data for the verification of the LCA was collected towards the end of the research process to support the data collected at the beginning of the research process. Moreover, since social representations have a relative stability over time, the data gathered remains relevant for understanding children's cognitions, particularly because children position themselves in relation to online risk with reference to the systems children interact with (Duveen, 1996; Ivinson & Duveen, 2005), and the core elements of the representations held by these systems are also relatively stable.

Through the process of this dissertation, I was involved in other related research projects. These include two national surveys with children, qualitative research studies with children and parents, an evaluation of the local helpline and internet hotline, the data analysis of a survey with Irish parents, and some publications. Since the research area is very topical, I was also involved in delivering talks to children, parents and educators. Despite being time-consuming activities, I feel that they have further enriched my understanding of the topic and contributed towards reflecting on the present research. Until the LCA and verification exercise were settled upon for the third phase, several options were considered and eventually discarded, and this took some more time than expected. However, looking back, this time was also necessary. The third phase enriches the findings from the survey and focus groups and provides insights into the variables of children's online behaviour that could impact the way they understand and experience online risk.

Contribution to Knowledge

This study has provided significant insights into how preadolescents make sense of online risks. Since these risks cannot be eliminated, and children cannot be excluded from the online environment, this understanding is very valuable for identifying how to protect children online. Through learning children's own language, this same language be used to educate and accompany them. Children can be the first line of defence from online risks when they have sufficient and correct awareness of such risks and media literacy skills.

Instead of technology being considered the root of all evil because of the risks, it would be better to accept it as another medium for communication and interaction, rather than considering it a separate world from the 'real' one. It is for this reason that it is being recommended that media literacy education is re-established. Like all media introduced in society through the ages, it has its risks, but also its benefits. Appreciating its benefits and acknowledging and understanding its risks makes it more manageable and approachable to children and adults alike.

Children are aware that there are risks online, and they express the need to be vigilant when online. Children's own experiences teach them about online risks, and children are more able to perceive risk when they can identify its effects. When children do not have sufficient understanding of online risks, they fill-in the blanks with information they obtain from their peers, adults, fiction and news sources, but this often results in unrealistic, fantastical or stereotypical ways of explaining risks.

Perhaps the most compelling and unexpected finding is the presence of self-serving biases. Children engage in some risk behaviours online because the benefits they perceive outweigh the risks. Children also perceive themselves as invulnerable to online risks, in comparison to their peers whom they consider more at risk. These self-serving biases hinder children's realistic assessment of online risks, and result in the misguided safety solutions they adopt, if they take any at all, particularly when children think they can cheat the internet. On the other hand, when children are aware and knowledgeable of online risks, they act confidently and take appropriate safety measures.

The different representations and variability within the same age group indicate that children between 9 and 12 years cannot be considered as a homogenous group. Children have different risk perceptions, risk experiences, skills and safety measures, and these differences are significantly distinct that 4 groups could be identified from the LCA which children also recognised and identified with. When children carry out more activities online, they have

more experiences of risk, but they are also more knowledgeable. Contrastingly, children who carry out less activities online have less risk experiences, but they also have a negative perception of the internet and are less skilled. These differences are not based on children's age, gender or the amount of time spent online, but on their patterns of online activities, indicating multi-faceted experiences.

The paradigm of researching new media and children seems to be shifting from researching the technological aspect towards one that focuses on the children's needs. It is evident that risk is not inherent in new media, but it is the interaction with new media and other users that brings about online risks. While children need to be consulted and involved in the discussion about their online safety to ensure that their needs are being understood, they also need accompanying and safeguarding. This collective responsibility is not always being shouldered by the different parties, partly because of the assumption that digital natives have innate skills. Children look up to their guardians and educators and these need to be good role models that children can refer to when they need. The safeguarding that can be provided by guardians and educators, the risk management which the children themselves can learn and apply, and the support the children give to each other all reinforce each other and create a ripple effect when all of these have sufficient media literacy skills. Together with the contribution of policymakers and industry, they provide a safety net for children when exploring risky opportunities online.

To present a final metaphor, children using the internet and having skills that match their online endeavours can be compared to when children learn to cross the road. Children are not first told to attempt crossing and then eventually taught to look on both sides of the road before doing so. The skill and the safety features that accompany it are taught in tandem. Similarly, when children go online, they should also start learning about online risks, how to manage them and where to seek support. Support should be readily available from their guardians and educators. Children and their support systems should be going online in an

environment where media literacy is given its due importance. This research uncovered the different ways children understand risk. Their biases and the ways in which they anchor and objectify online risks are reflected in the actions they take to stay safe online. Uncovering these ways of making sense of online risk and the variability within the same age group identified that children lack media literacy skills and this is a lacuna that needs to be addressed urgently given that it is only the savvier children who have better outcomes when faced with risky opportunities. Like the different systems contribute to how children represent online risks, the solution also lies within these systems. When these systems assume a shared responsibility for protecting children online, media literacy in its widest sense increases and children are better able at managing online risks.

References

- Abela, A. & Grech-Lanfranco, I. (2016). *Positive parenting: National strategic policy 2016-2024*.
<https://family.gov.mt/en/Documents/National%20Parenting%20Policy%20English%208.02.17.pdf>
- Adler, P., & Adler, P. (2011). *The tender cut. Inside the hidden world of self-injury*. New York University.
- Introduction of tablets is an educational project* (2014). <https://bit.ly/2Zv1c3Y>
- Agius, D. (2012, September 23). ICT - A change in mentality and lifestyle. *The Malta Independent Online*. <http://www.independent.com.mt/articles/2012-09-23/opinions/ict-a-change-in-mentality-and-lifestyle-316411/>
- American Academy of Pediatrics (n.d.) 'Media and children.'
- Andrews, J. C., Walker, K. L., & Kees, J. (2020). Children and Online Privacy Protection: Empowerment from Cognitive Defense Strategies. *Journal of Public Policy & Marketing*, 39(2), 205-219. <https://doi.org/10.1177%2F0743915619883638>
- Andreouli, E. (2010). Identity, positioning and self-other relations. *Papers on Social Representations*, 19(1), 14-1.
- Archidiose of Malta (2018). *Mal-40% jattendu l-quddies kull nhar ta' Hadd*.
<https://knisja.mt/mal-40-jattendu-l-quddies-kull-nhar-ta-hadd/>
- Atkinson, S., Furnell, S. & Phippen, A. (2009). *Investigating attitudes towards online safety and security and evaluating a peer-led internet safety programme for 14 to 16 year olds: Final report*. BECTA.

https://dera.ioe.ac.uk/1451/7/bectaresearchgrant_2009_onlinesafety.furnell.report_Redacted.pdf

Augoustinos, M., & Walker, I. (1995). *Social cognition: An integrated introduction*. Sage Publications.

Bailey, R. (2011). *Letting children be children. Report of an independent review of the commercialisation and sexualisation of childhood*.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/175418/Bailey_Review.pdf

Baldry, A. C. (2004). 'What about bullying?' An experimental field study to understand students' attitudes towards bullying and victimisation in Italian middle schools. *British Journal of Educational Psychology*, 74(4), 583-598.

<https://doi.org/10.1348/0007099042376391>

Bauer, M. W., & Gaskell, G. (1999). Towards a paradigm for research on social representations. *Journal for the Theory of Social Behaviour*, 29(2), 163-186.

<https://doi.org/10.1111/1468-5914.00096>

Beebe, T. J., Asche, S.E., Harrison, P.A. & Quinlan, K.B. (2004). Heightened vulnerability and increased risk-taking among adolescent chat room users: Results from a statewide school survey. *Journal of Adolescent Health*, 35, 116–123.

<https://doi.org/10.1016/j.jadohealth.2003.09.012>

Berger, P., & Luckmann, T. (1966). *The social construction of knowledge: A treatise in the sociology of knowledge*. Doubleday.

Berk, L. E. (2000). *Child development* (5th ed.). Allyn and Bacon.

Beyens, I., Pouwels, J. L., van Driel, I. I., Keijsers, L., & Valkenburg, P. M. (2020). The effect of social media on well-being differs from adolescent to adolescent. *Scientific Reports*, 10(1), 1-11. <https://doi.org/10.1038/s41598-020-67727-7>

Beyens, I., Valkenburg, P. M., & Piotrowski, J. T. (2018). Screen media use and ADHD-related behaviors: Four decades of research. *Proceedings of the National Academy of Sciences*, *115*(40), 9875-9881. <https://doi.org/10.1073/pnas.1611611114>

Blum-Ross, A. & Livingstone, S. (2016) *Families and screen time: Current advice and emerging research. Media Policy Brief 17*. London: Media Policy Project, London School of Economics and Political Science.

Bond, E. (2010). The mobile phone = bike shed? Children, sex and mobile phones. *New Media Society*, *13* (4), 587-604. <https://doi.org/10.1177%2F1461444810377919>

Bond, E. (2012). Virtually Anorexic—Where’s the harm? A research study on the risks of pro-anorexia websites. *Full report. November. University Campus Suffolk, School of Applied Social Sciences*. <https://www.ucs.ac.uk/virtuallyanorexic>

Bond, E. (2013). Mobile phones, risk and responsibility: Understanding children’s perceptions. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, *7*(1), article 3. <https://doi.org/10.5817/CP2013-1-3>

Borg, J. (2009). Malta’s media landscape: An overview. In Borg, J., Hillman A. and Lauri M.A., (Eds.) *Exploring the Maltese Media Landscape*, (19-35). Allied Publications.

Borg, J. & Lauri, M.A. (2006, July). *Media Education in Malta: Historical perspectives and current developments*. Paper presented at the Conference of the International Association for Media & Communication Research, Cairo.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage.

Boyd, D. (2007). Why youth (heart) social network sites: The role of networked publics in teenage social life. In D. Buckingham, (Ed.), *Youth, identity and digital media. The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning* (pp. 119-142). Berkman Center Research Publication. <https://ssrn.com/abstract=1518924>

Boyd, (2011). *How social media accelerated the uprising in Egypt*.

<http://www.fastcompany.com/1722492/how-social-media-accelerated-uprising-egypt>

Boyd, D. (2014). *It's complicated: The social lives of networked teens*. Yale University Press.

Boyd, D. & Marwick, A. E. (2011). Social privacy in networked publics: Teens' attitudes, practices, and strategies. *Proceedings of the Conference a Decade in Internet Time: Symposium on the Dynamics of the Internet and Society*, UK, Oxford, 22nd September, 2011.

Boyd, D., Hargittai, E., Schultz, J. & Palfrey, J. (2011). Why parents help their children lie to Facebook about age: Unintended consequences of the 'Children's Online Privacy Protection Act'. *First Monday* 16, (11), November 2011.

<https://doi.org/10.5210/fm.v16i11.3850>

Bradley, K. (2005). Internet lives: Social context and moral domain in adolescent development. *New Directions for Youth Development*, 108, 57-76.

<https://doi.org/10.1002/yd.142>

Branthwaite, A. & Patterson, S. (2011). The power of qualitative research in the era of social media. *Qualitative Market Research: An International Journal*, 14(4), 430-440.

<https://doi.org/10.1108/13522751111163245>

Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2): 77-101. <https://doi.org/10.1191/1478088706QP0630A>

Braun, V., & Clarke, V. (2012). *Thematic analysis*. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbooks in psychology®. APA handbook of research methods in psychology, Vol. 2. Research designs: Quantitative, qualitative, neuropsychological, and biological* (p. 57–71). American Psychological Association. <https://doi.org/10.1037/13620-004>

Breakwell, G. M. (2007). *The psychology of risk*. Cambridge University Press.

Broadbent, H., Fell, L., Green, P., & Gardner, W. (2013). *Have your Say: Listening to young people about their online rights and responsibilities*. Plymouth: Childnet International and UK Safer Internet Centre.

<https://www.childnet.com/ufiles/Have%20your%20Say%20Report.pdf>

Bronfenbrenner, U. (1974). Developmental research, public policy, and the ecology of childhood. *Child development*, 45(1), 1-5.

Bronfenbrenner, U. (1994). Ecological models of human development. *Readings on the Development of Children*, 2, 37-43.

Brysbaert, M. (2011). *Basic statistics for psychologists*. Palgrave.

Bucher, T. (2017). The algorithmic imaginary: exploring the ordinary affects of Facebook algorithms. *Information, communication & society*, 20(1), 30-44.

<https://doi.org/10.1080/1369118X.2016.1154086>

Buckingham, D. (2007). *Beyond technology: Children's learning in the age of digital culture*. Polity.

Buckingham, D., & Strandgaard Jensen, H. (2012). Beyond “media panics”: Reconceptualising public debates about children and media. *Journal of Children and Media*, 6(4), 413-429. <https://doi.org/10.1080/17482798.2012.740415>

Buckingham, D., Whiteman, N., Willett, R., & Burn, A. N. (2007). *The impact of the media on children and young people with a particular focus on computer games and the internet: Prepared for the Byron Review on children and new technology*. Department for Children, Schools and Families. <https://bit.ly/2Rh7VtY>

Byrne, S. & Lee, T. (2011). Toward predicting youth resistance to risk prevention strategies. *Journal of Broadcasting & Electronic Media*, 55(1), 90-113.

<https://doi.org/10.1080/08838151.2011.546255>

Cabello Cádiz, P. (2011). ICTs use and risk constructions by preteens and teens: Qualitative research in a low income neighborhood in Madrid, Spain. *Proceedings of the conference EU Kids Online, UK, London, 22nd & 23rd September.*

Carcary, M. (2009). The research audit trial—enhancing trustworthiness in qualitative inquiry. *The Electronic Journal of Business Research Methods*, 7(1), 11-24.

Cassell, J., & Cramer, M. (2007). High tech or high risk: Moral panics about girls online. *Digital Youth, Innovation, and the Unexpected*, 53-75.

<https://doi.org/10.1162/dmal.9780262633598.053>

Castells, M. (2012). *Networks of Outrage and Hope: Social Movements in the Internet Age*. Polity Press.

Cefai, C. & Galea, N. (2016) *Children's Worlds. The subjective wellbeing of Maltese children*. Third Monograph of the Centre for Resilience & Socio-Emotional Health, University of Malta.

Cefai, C., Cooper, P., & Camilleri, L. (2009). Social, emotional and behaviour difficulties in Maltese schools. *International Journal of Emotional Education*, 1(1), 8-49.

<https://www.um.edu.mt/library/oar/handle/123456789/6260>

Char, S., Bagchi-Sen, S., Morrel, C., Rao, H. R. & Upadhyaya, S.J. (2009). Internet and online information privacy: An exploratory study of preteens and early teens. *IEEE Transactions on Professional Communication*, 52(2), 167-182.

<https://doi.org/10.1109/TPC.2009.2017985>

Chaudron, S. (2015). *Young children (0-8) and digital technology. A Qualitative Exploratory Study Across Seven Countries*. Joint Research Centre. European Commission.

Cho, H., Lee, J. & Chung, S. (2010). Optimistic bias about online privacy risks: Testing the moderating effects of perceived controllability and prior experience. *Computers in Human Behaviour*, 26(5), 987-995. <https://doi.org/10.1016/j.chb.2010.02.012>

Christ, W. G., & Potter, W. J. (1998). Media literacy, media education, and the academy. *Journal of Communication*, 48(1), 5-15. <https://doi.org/10.1111/j.1460-2466.1998.tb02733.x>

Clark, A. (2006). Real life methods working papers: Anonymising research data. *Leeds: NCRM Real Life Methods Node, University of Leeds*.

Clark, L. S. (2013). *The parent app: Understanding families in the digital age*. Oxford University Press.

Clarke, B. H. (2009). Early adolescents' use of social networking sites to maintain friendship and explore identity: implications for policy. *Policy & Internet*, 1(1), 55-89. <https://doi.org/10.2202/1944-2866.1018>

Cohen, S. (1972). 2002. *Folk devils and moral panics: The creation of the mods and rockers*. Routledge.

Companies unite to launch the first industry-led Europe-wide principles to enhance online safety for children. (2012). <https://prn.to/3bU59V6>

Conway, G., & Hadlington, L. (2018). How Do Undergraduate Students Construct Their View of Cybercrime? Exploring Definitions of Cybercrime, Perceptions of Online Risk and Victimization. *Policing: A Journal of Policy and Practice*, 0(0), 1-11. <https://doi.org/10.1093/police/pay098>

Cranmer, S., Selwyn, N. & Potter, J. (2009). Exploring primary pupils' experiences and understandings of 'e-safety'. *Educ Inf Technol*, 14, 129-142. <https://doi.org/10.1007/s10639-008-9083-7>

Crawford, H. K., Leybourne, M. L., & Arnott, A. (2000, January). How we ensured rigor from a multi-site, multi-discipline, multi-researcher study. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* (Vol. 1, No. 1). <http://dx.doi.org/10.17169/fqs-1.1.1122>

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications.

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd Ed.). Sage.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Sage.

Cutcliffe, J. R., & McKenna, H. P. (2004). Expert qualitative researchers and the use of audit trails. *Journal of Advanced Nursing*, 45(2), 126-133. <https://doi.org/10.1046/j.1365-2648.2003.02874.x>

Darley, J. M., & Latane, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 8(4, Pt.1), 377–383. <https://doi.org/10.1037/h0025589>

Delevi, R., & Weisskirch, R. S. (2013). Personality factors as predictors of sexting. *Computers in Human Behavior*, 29(6), 2589-2594. <https://psycnet.apa.org/doi/10.1016/j.chb.2013.06.003>

De Rosa, A. S. (2002). The "associative network": a technique for detecting structure, contents, polarity and stereotyping indexes of the semantic fields. *European Review of Applied Psychology*, 52(3/4), 181-200.

DeNisco Rayome, A. (2019, December 16). *10 most-downloaded apps of the 2010s: Facebook dominates the decade*. <https://web.archive.org/web/20191218120846/https://www.cnet.com/news/10-most-downloaded-apps-of-the-decade-facebook-dominated-2010-2019/>

Denscombe, M. (2008). Communities of practice: A research paradigm for the mixed methods approach. *Journal of Mixed Methods Research*, 2(3), 270-283. <https://doi.org/10.1177/1558689808316807>

Dinh, T., Farrugia, L., O'Neill, B., Vandoninck, S., & Velicu, A. (2016). *Insafe Helplines. Operations, effectiveness and emerging issues for internet safety helplines.*

D'Haenens, L. Vandoninck, S. & Donoso, V. (2012). *How to cope and build online resilience?*

[http://eprints.lse.ac.uk/48115/1/How%20to%20cope%20and%20build%20online%20resilienc%20\(lsero\).pdf](http://eprints.lse.ac.uk/48115/1/How%20to%20cope%20and%20build%20online%20resilienc%20(lsero).pdf)

Duveen, G. (1996). The development of social representations of gender. *実験社会心理学研究*, 35(3), 256-262. <https://doi.org/10.2130/jjesp.35.256>

Duveen, G. & Lloyd, B. (1990). Introduction. In Duveen, G. & Lloyd, B. (Eds.), *Social representations and the development of knowledge* (pp. 1-10). Cambridge University Press.

ECDL Foundation. (2014). The Fallacy of the 'Digital Native': Why Young People Need to Develop their Digital Skills. *Position Paper No.: E. Foundation.*

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-mediated Communication*, 12(4), 1143-1168. <https://doi.org/10.1111/j.1083-6101.2007.00367.x>

Emler, N., Ohana, J. & Dickinson, J. (1990). Children's representations of social relations. In Duveen, G. & Lloyd, B. (Eds.), *Social representations and the development of knowledge* (pp. 47-69). Cambridge: Cambridge University Press.

Erikson, E. H. (1968). *Identity: Youth and crisis* (No. 7). WW Norton & Company.

Ess, C. & AoIR ethics working committee. (2002). *Ethical decision-making and Internet research: Recommendations from the AoIR ethics working committee.* Association of Internet Researchers. www.aoir.org/reports/ethics.pdf

Eurostat (2020). *Digital economy and society statistics - households and individuals*.

European Union. https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital_economy_and_society_statistics_-_households_and_individuals

Exelmans, L., Custers, K., & Van den Bulck, J. (2015). Violent video games and delinquent behavior in adolescents: A risk factor perspective. *Aggressive behavior, 41*(3), 267-279. <https://doi.org/10.1002/ab.21587>

Falzon, G. (2018). The Maltese watch porn to learn from it.

<https://www.tvn.com.mt/en/news/the-maltese-watch-porn-to-learn-from-it/>

Farrugia, L. (2009). *Happily ever after? Understanding youth's experiences of self-disclosure on television*. (Unpublished Master Dissertation). University of Malta, Malta.

Farrugia, L. (2018). Self-Other positioning: Insights into children's understanding of risks in new media. In L. Peja, N. Carpentier, F. Colombo, M. F. Murru, S. Tosoni, R. Kilborn, L. Kramp, R. Kunelius, A. McNicholas, H. Nieminen, and P. Pruulmann-Vengerfeldt (Eds). *Current Perspectives on Communication and Media Research* (pp. 233-245). Bremen: Lumière.

Farrugia, L. (2019). Balancing children's rights to participation, provision and protection in the digital world: A focus on excessive use. In J. Borg & M.A. Lauri (Eds.), *Navigating the Maltese Mediascape* (pp. 123-135). Kite Publications.

Farrugia, L. & Lauri, M.A. (2018). Maltese parents' awareness and management of risks their children face online, p. 135-146. In Giovanna Mascheroni, Cristina Ponte & Ana Jorge (eds.) *Digital Parenting. The Challenges for Families in the Digital Age*. Nordicom.

Farrugia, L., Lauri, M. A., Borg, J., & O'Neill, B. (2019). Have You Asked for It? An Exploratory Study About Maltese Adolescents' Use of Ask.fm. *Journal of Adolescent Research, 34*(6), 738-756. <https://doi.org/10.1177%2F0743558418775365>

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme

development. *International journal of qualitative methods*, 5(1), 80-92.

<https://doi.org/10.1177%2F160940690600500107>

Fischhoff, S. (2005). Media psychology: A personal essay in definition and purview. *Journal of Media Psychology* 10(1). <https://www.apadivisions.org/division-46/about/fischhoff-media-psychology.pdf>

Fischhoff, B., Slovic, P., Lichtenstein, S., Read, S., & Combs, B. (2011). How safe is safe enough? A psychometric study of attitudes towards technological risks and benefits. In P. Slovic. (Ed.), *The perception of risk*. (pp. 80–103). Earthscan Publications.

Fogel, J., & Nehmad, E. (2009). Internet social network communities: Risk taking, trust, and privacy concerns. *Computers in Human Behavior*, 25(1), 153-160.

<https://doi.org/10.1016/j.chb.2008.08.006>

Franzke, A. S., Bechmann, A., Zimmer, M., Ess, C and the Association of Internet Researchers (2020). *Internet Research: Ethical Guidelines 3.0*.

<https://aoir.org/reports/ethics3.pdf>

Frost, M. (2014). The grief grapevine: Facebook memorial pages and adolescent bereavement. *Journal of Psychologists and Counsellors in Schools*, 24(2), 256-265.

<https://doi.org/10.1017/jgc.2013.30>

Garcia, S. M., Weaver, K., Moskowitz, G. B., & Darley, J. M. (2002). Crowded minds: The implicit bystander effect. *Journal of Personality and Social Psychology*, 83(4), 843. <https://psycnet.apa.org/doi/10.1037/0022-3514.83.4.843>

Gibbs, A. (1997). Focus groups. *Social Research Update*, 19(8), 1-8.

Gibson, J. E. (2012). Interviews and focus groups with children: Methods that match children's developing competencies. *Journal of Family Theory and Review*, 4, 148–159.

<https://doi.org/10.1111/j.1756-2589.2012.00119.x>

Gilbert, L. S. (2002). Going the distance: 'closeness' in qualitative data analysis software. *International Journal of Social Research Methodology*, 5(3), 215-228.

<https://doi.org/10.1080/13645570210146276>

Goodwin, R., Kozlova, A., Nizharadze, G., & Polyakova, G. (2004). HIV/AIDS among adolescents in Eastern Europe: knowledge of HIV/AIDS, social representations of risk and sexual activity among school children and homeless adolescents in Russia, Georgia and the Ukraine. *Journal of Health Psychology*, 9(3), 381-396.

<https://doi.org/10.1177%2F1359105304042348>

Government of Malta, 2019. *Parental skills courses*

<https://fsws.gov.mt/en/sedqa/Pages/Prevention-Services/Parental-Skills-Courses.aspx>.

Grant, I. C. (2006). *Online privacy: An issue for adolescents. Proceedings of the Child and Teen Consumption Conference.*

Grix, J. (2001). *Demystifying postgraduate research. From MA to PhD.* A&C Black.

Grover, S. (2004). Why won't they listen to us? On giving power and voice to children participating in social research. *Childhood*, 11(1), 81-93.

<https://doi.org/10.1177%2F0907568204040186>

Gruev-Vintila, A., & Rouquette, M. (2007). Social thinking about collective risk: How do Risk-related practice and personal involvement impact its social representations? *Journal of Risk Research*, 10(4), 555-581. <https://doi.org/10.1080/13669870701338064>

Guba, E. G., & Lincoln, Y. S. (2005). Paradigmatic Controversies, Contradictions, and Emerging Confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of qualitative research* (3rd Ed.) (pp. 191-215). Sage

Guo, R. M. (2008). Stranger danger and the online social network. *Berkeley Technology Law Journal*, 23(1), 617-644. <https://doi.org/10.2307/24118329>

Hagen, I., & Jorge, A. (2015). Grey zones: Audience research, moral evaluations and online risk negotiation. In Zeller, F., Ponte, C., & O'Neill, B. (Eds.). *Revitalising Audience Research: Innovations in European Audience Research (Vol. 5)*, (pp. 159-175). Routledge.

Hall, R. (2013). Mixed methods: In search of a paradigm. *Conducting research in a changing and challenging world*, 71-78. <https://bit.ly/3mebbo5>

Hargittai, E. (2010). Digital natives? variation in internet skills and uses among members of the "Net generation"*. *Sociological Inquiry*, 80(1), 92-113.

<https://doi.org/10.1111/j.1475-682X.2009.00317.x>

Hart Research Associates, (2011). Who needs parental controls? *A survey of awareness, attitudes, and use of online parental controls. Findings from a national survey among parents*. US: Family Online safety Institute.

https://enough.org/objects/Who_Needs_Parental_Controls_Survey_Findings.pdf

Hasebrink, U., Livingstone, S., Haddon, L. and Ólafsson, K. (2009) *Comparing children's online opportunities and risks across Europe: cross-national comparisons for EU kids online*. (2nd Ed.). LSE, London: EU Kids Online

Heary, C. M., & Hennessy, E. (2002). The use of focus group interviews in pediatric health care research. *Journal of Pediatric Psychology*, 27(1), 47-57.

<https://doi.org/10.1093/jpepsy/27.1.47>

Höijer, B. (2011). Social Representations Theory. A new theory for media research. *Nordicom Review*, 32 (2), 3-16. <https://doi.org/10.1515/nor-2017-0109>

Holloway, S. L., & Valentine, G. (2001). 'It's only as stupid as you are': Children's and adults' negotiation of ICT competence at home and at school. *Social & Cultural Geography*, 2(1), 25-42. <https://doi:10.1080/14649360020028258>

Holloway, D., Green, L. and Livingstone, S. (2013). *Zero to eight. Young children and their internet use*. LSE, London: EU Kids Online.

Hoppe, M. J., Wells, E. A., Morrison, D. M., Gillmore, M. R., & Wilsdon, A. (1995). Using focus groups to discuss sensitive topics with children. *Evaluation Review*, 19(1), 102–114. <https://doi.org/10.1177%2F0193841X9501900105>

Horner, S. D. (2000). Using focus group methods with middle school children. *Research in Nursing & Health*, 23(6), 510-517. [https://doi.org/10.1002/1098-240X\(200012\)23:6%3C510::AID-NUR9%3E3.0.CO;2-L](https://doi.org/10.1002/1098-240X(200012)23:6%3C510::AID-NUR9%3E3.0.CO;2-L)

Howarth, C. (2006). A social representation is not a quiet thing: Exploring the critical potential of social representations theory. *British Journal of Social Psychology*, 45(1), 65-86. <https://doi.org/10.1348/014466605X43777>

ICT Coalition. (n.d.). <http://www.ictcoalition.eu/>

Ito, M., Horst, H., Bittanti, M., boyd, D., Herr-Stephenson, B., Lange, P.G. Pascoe, C. J. & Robinson, L. (2008). *Living and learning with new media: Summary of findings from the Digital Youth Project*. The John D. and Catherine T. MacArthur Foundation Reports on Digital Media and Learning. <http://library.oapen.org/handle/20.500.12657/26078>

Ivinson, G., & Duveen, G. (2005). Classroom structuration and the development of social representations of the curriculum. *British Journal of Sociology of Education*, 26(5), 627-642. <https://doi.org/10.1080/01425690500293603>

James, C. (2009). *Young people, ethics, and the new digital media. A synthesis from the GoodPlay Project*. MIT Press.

Jaramillo-Moreno, R. (2014). Social representations of parents with school-age children concerning risk and protection factors of drug use in Bogota, Colombia. *Procedia-Social and Behavioral Sciences*, 132(15), 377-383. <https://doi.org/10.1016/j.sbspro.2014.04.325>

Jensen, J. D., Weaver, A. J., Ivic, R. & Imboden, K. (2011). Developing a brief sensation seeking scale for children: Establishing concurrent validity with video game use and

rule-breaking behavior. *Media Psychology*, 14, 71-95.

<https://doi.org/10.1080/15213269.2010.547831>

Joffe, H. (1999). *Risk and 'the other'*. Cambridge University Press.

Joffe, H. (2003). Risk: From perception to social representation. *British Journal of Social Psychology*, 42, 55–73. <https://doi.org/10.1348/014466603763276126>

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.

<https://doi.org/10.3102%2F0013189X033007014>

Joinson, A. (1999). Social desirability, anonymity, and internet-based questionnaires. *Behavior Research Methods, Instruments, & Computers*, 31(3), 433-438.

<https://doi.org/10.3758/BF03200723>

Jorge, A., & Farrugia, L. (2017). Are victims to blame? Youth, gender and moral discourse on online risk. *Catalan Journal of Communication & Cultural Studies*, 9(2), 285-301. https://doi.org/10.1386/cjcs.9.2.285_1

Jovchelovitch, S. (1996). In defence of representations. *Journal for the Theory of Social Behaviour*, 26(2), 121-135. <https://doi.org/10.1111/j.1468-5914.1996.tb00525.x>

Jung, T., & Wickrama, K. A. S. (2008). An introduction to latent class growth analysis and growth mixture modeling. *Social and personality psychology compass*, 2(1), 302-317.

<https://doi.org/10.1111/j.1751-9004.2007.00054.x>

Juvonen, J. & Gross, E. (2008). Extending the school grounds? Bullying experiences in cyberspace. *Journal of School Health*, 78, 496-505. <https://doi.org/10.1111/j.1746-1561.2008.00335.x>

Kalmus, V., Runnel, P. & Siibak, A. (2009). Opportunities and benefits online. In Livingstone, S. and Haddon, L. (Eds). (2009). *Kids online. Opportunities and risks for children*. Policy Press.

Kim, A. S., Davies, K. (2017). Tweens' perspectives on their parents' media-related attitudes and rules: An exploratory study in the US. *Journal of Children and Media*, 11(1-9).

<https://doi.org/10.1080/17482798.2017.1308399>

Klettke, B., Hallford, D. J., & Mellor, D. J. (2014). Sexting prevalence and correlates: A systematic literature review. *Clinical Psychology Review*, 34(1), 44-53.

<https://doi.org/10.1016/j.cpr.2013.10.007>

Koch, T. (1994). Establishing rigour in qualitative research: the decision trail. *Journal of advanced nursing*, 19(5), 976-986. <https://doi.org/10.1111/j.1365-2648.1994.tb01177.x>

Krause, M. (2002). Social representations of psychological problems: Contents and transformations. *Social Science Information*, 41(4), 603-623.

<https://doi.org/10.1177%2F0539018402041004006>

Krcmar, M., van der Meer, A., & Cingel, D. P. (2015). Development as an explanation for and predictor of online self-disclosure among Dutch adolescents. *Journal of Children and Media*, 9(2), 194-211. <https://doi.org/10.1080/17482798.2015.1015432>

Kroger, J. (2004). *Identity in adolescence: The balance between self and other*. Routledge.

Krouska, A., Troussas, C., & Virvou, M. (2017). Social networks as a learning environment: Developed applications and comparative analysis. In *2017 8th International Conference on Information, Intelligence, Systems & Applications (IISA)* (pp. 1-6). IEEE.

Lather, P. (2006). Paradigm proliferation as a good thing to think with: Teaching research in education as a wild profusion. *International Journal of Qualitative Studies in Education*, 19(1), 35-57. <https://doi.org/10.1080/09518390500450144>

Lauri, M. A. (2009). Metaphors of organ donation, social representations of the body and the opt-out system. *British Journal of Health Psychology*, 14(4), 647-666.

<https://doi.org/10.1348/135910708X397160>

Lauri, M. A. (2015). Social change, social marketing and social representations. In G. Sammut, E. Andreouli, G. Gaskell & J. Valisner (Eds), *The Cambridge Handbook of Social Representations* (pp. 385-396). Cambridge University Press.

Lauri, M.A., Borg, J. & Farrugia, L. (2015). Children's internet use and their parents' perceptions of the children's online experience. Malta: Malta Communications Authority.

Lauri, M.A. & Farrugia, L. (2020). *Access, use, risks and opportunities for Maltese children on the internet*. University of Malta.

Lavrakas, P. J. (2008). *Encyclopedia of survey research methods* (Vols. 1-0). Sage Publications, Inc. <https://doi.org/10.4135/9781412963947>

Lenhart, A. (2009). *Teens and sexting. A Pew Internet & American Life Project Report*. http://ncdsv.org/images/PewInternet_TeensAndSexting_12-2009.pdf

Lenhart, A. (2015). *Teens, Social Media & Technology Overview 2015*. <http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/>

Lenhart, A., Madden, M., Smith, A., Purcell, K.P. Zickuhr, K. & Rainie L., (2011). *Teens, kindness and cruelty on social networking sites*. Washington DC: Pew Internet and American Life Project. <https://www.pewresearch.org/internet/2011/11/09/teens-kindness-and-cruelty-on-social-network-sites/>

Leung, L. & Lee, P. S.N. (2011). The influences of information literacy, internet addiction and parenting styles on internet risks. *New Media Society*, 14, 117 - 136. <https://doi.org/10.1177%2F1461444811410406>

Levin, D. E., & Kilbourne, J. (2008). *So sexy so soon: The new sexualized childhood, and what parents can do to protect their kids*. Ballantine Books.

Levy, N., Cortesi, S., Gasser, U., Crowley, E., Beaton, M., Casey, J., & Nolan, C. (2012). Bullying in a networked era: A literature review. *Berkman Center Research Publication*, (2012-17). <http://ssrn.com/abstract=2146877>

Lewis, J. M., Heath, N. L. St Denis, J. M. & Noble, R., (2011). The scope of nonsuicidal self-injury on YouTube. *Pediatrics*, 127(3), 552-557.

<https://doi.org/10.1542/peds.2010-2317>

Linzer, D. A., & Lewis, J. B. (2011). poLCA: An R package for polytomous variable latent class analysis. *Journal of statistical software*, 42(10), 1-29.

Livingstone, S. (2008). Taking risky opportunities in youthful content creation: Teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media Society*, 10, 393-411. <https://doi.org/10.1177/1461444808089415>

Livingstone, S. (2014). Developing social media literacy: How children learn to interpret risky opportunities on social network sites. *Communications*, 39(3), 283-303.

<https://doi.org/10.1515/commun-2014-0113>

Livingstone, S. (2019). EU Kids Online. In R. Hobbs and P. Mihailidis (Eds.). *The International Encyclopedia of Media Literacy*.

<https://doi.org/10.1002/9781118978238.ieml0065>

Livingstone, S. & Haddon, L. (2008). Risky experiences for children online: charting European research on children and the Internet. *Children & Society*, 22(4), 314-323.

<https://doi.org/10.1111/j.1099-0860.2008.00157.x>

Livingstone, S. & Haddon, L. (Eds). (2009). *Kids online. Opportunities and risks for children*. Policy Press.

Livingstone, S. & Haddon, L. (2012). Theoretical framework for children's internet use. In Livingstone, S. and Haddon, L. (Eds). (2012). *Children, risk and safety on the internet*. (pp. 1-14). Policy Press.

Livingstone, S., & Helsper, E. (2007). Gradations in digital inclusion: Children, young people and the digital divide. *New Media & Society*, 9(4), 671-696.

<https://doi.org/10.1177%2F1461444807080335>

Livingstone, S. & Helsper, E. (2010). Balancing opportunities and risks in teenagers' use of the internet: The role of online skills and internet self-efficacy. *New Media & Society*, 12, 309-329. <https://doi.org/10.1177%2F1461444809342697>

Livingstone, S., Haddon, L., Görzig, A., and Ólafsson, K. (2011a). *Risks and safety on the internet: The perspective of European children. Full Findings*. LSE, London: EU Kids Online.

Livingstone, S., Haddon, L., Görzig, A. and Ólafsson, K. (2011b). *EU Kids Online. Final Report*. LSE, London: EU Kids Online.

Livingstone, S., Kirwil, L., Ponte, C., & Staksrud, E. (2014). In their own words: What bothers children online? *European Journal of Communication*, 29(3), 271-288. <https://doi.org/10.1177%2F0267323114521045>

Livingstone, S., Mascheroni, G., Ólafsson, K., and Haddon, L., (2014). *Children's online risks and opportunities: comparative findings from EU Kids Online and Net Children Go Mobile*. London: London School of Economics and Political Science. <http://www.netchildrengomobile.eu/>

Livingstone, S., Mascheroni, G., & Staksrud, E. (2015). *Developing a framework for researching children's online risks and opportunities in Europe*. <https://bit.ly/32pnrug>

Livingstone, S., Ólafsson, K. & Staksurd, E. (2013). Risky social networking practices among "underage" users: Lessons for evidence-based policy. *Journal of Computer-Mediated Communication*, 18(3), 303-320. <https://doi.org/10.1111/jcc4.12012>

Livingstone, S., Ólafsson, K., Helsper, E. J., Lupiáñez-Villanueva, F., Veltri, G. A., & Folkvord, F. (2017). Maximizing opportunities and minimizing risks for children online: The role of digital skills in emerging strategies of parental mediation. *Journal of Communication*, 67(1), 82-105. <https://doi.org/10.1111/jcom.12277>

Livingstone, S., & Third, A. (2017). Children and young people's rights in the digital age: an emerging agenda. *New Media and Society*, 657-670.

<https://doi.org/10.1177%2F1461444816686318>

Lloyd, B., & Duveen, G. (1990). A semiotic analysis of the development of social representations of gender. In Duveen, G. & Lloyd, B. (Eds.), *Social representations and the development of knowledge* (pp. 27-46). Cambridge: Cambridge University Press.

Lounsbury, K., Mitchell, K., & Finkelhor, D. (2011). *The true prevalence of "sexting"*. Durham, NH, Crimes Against Children Research Center, University of New Hampshire. <https://scholars.unh.edu/ccrc/64/>

Lunt, P., & Livingstone, S. (1996). Rethinking the focus group in media and communications research. *Journal of Communication*, 46(2), 79-98.

<https://doi.org/10.1111/j.1460-2466.1996.tb01475.x>

Maccoby, E. E. & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. *Handbook of Child Psychology* 4, 1-101.

Maddux, J. E., & Rogers, R. W. (1983). Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change. *Journal of Experimental Social Psychology*, 19(5), 469-479. [https://doi.org/10.1016/0022-1031\(83\)90023-9](https://doi.org/10.1016/0022-1031(83)90023-9)

Magid, L. (2011). *Survey: 7.5M Facebook users below minimum age*. CNET News. <https://www.cnet.com/news/survey-7-5m-facebook-users-below-minimum-age/>

Malta Communications Authority (2010). *Study on the Use of ICT by Minors*.

Malta Communications Authority (2012a). *Use of ICT by Minors*. [report]. <http://www.mca.org.mt/surveys/use-ict-minors-2012>

Malta Communications Authority (2012b). *Networked society. MCA's digital inclusion strategy 2012-2015*.

<http://www.mca.org.mt/sites/default/files/pageattachments/MCA%20Network%20Society%2040Page%20Web%20Brochure.pdf>

Malta Union of Teachers (2015). *Tablets in schools – an MUT Survey*. Malta.

Manago, A. M., Guan, S. S., & Greenfield, P. (2015). New media, social change, and human development from adolescence through the transition to adulthood. In L. Arnett Jensen (Ed.), *The Oxford handbook of human development and culture: An interdisciplinary perspective*, (pp. 519-534) Oxford University Press.

Markham, A., & Buchanan, E. (2012). *Ethical decision-making and internet research: Version 2.0. recommendations from the AoIR ethics working committee*.

<https://aoir.org/reports/ethics2.pdf>

Marshall, M. N. (1996). Sampling for qualitative research. *Family practice*, 13(6), 522-526. <https://doi.org/10.1093/fampra/13.6.522>

Mascheroni, G., Jorge, A., & Farrugia, L. (2014). Media representations and children's discourses on online risks: Findings from qualitative research in nine European countries. *Cyberpsychology*, 8(2), 2. <https://doi.org/10.5817/CP2014-2-2>

Mascheroni, G., & Ólafsson, K. (2014). *Net children go mobile: Risks and opportunities*. Milano: Educatt.

Mascheroni, G., Vincent, J., & Jimenez, E. (2015). "Girls are addicted to likes so they post semi-naked selfies": Peer mediation, normativity and the construction of identity online. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 9(1), 5. <https://doi.org/10.5817/CP2015-1-5>

Marková, I. (2010). Gerard Duveen on the epistemology of social representations. *Papers on Social Representations*, 19, 4.1-4.9.

Marková, I. (2015). On thematic concepts and methodological (epistemological) themata. *Papers on Social Representations*, 24(2), 4-1.

Marková, I. (2017). The making of the theory of social representations. *Cadernos de pesquisa*, 47(163), 358-375. <http://doi.org/10.1590/198053143760>

MCA Corporate Profile (2013).

<http://www.mca.org.mt/sites/default/files/pageattachments/mca-corporate-profile-2013-spreads.pdf>

McAfee (2013). *McAfee Digital Deception Study 2013: Exploring the online disconnect between parents & pre-teens, teens and young Adults.*

http://boletines.prisadigital.com/rp_digital_deception_survey.pdf

McEwen, R. & Wellman, B. (2013) Relationships, Community, and Networked Individuals. In R. Teigland & D. Power (Eds.), *The Immersive Internet* (pp 168-179).

Palgrave Macmillan. https://doi.org/10.1057/9781137283023_15

McLeod, S. A. (2013). *Erik Erikson.* www.simplypsychology.org/Erik-Erikson.html

Micallef, K. (2015, October 16). 'Gay books' will not be distributed in schools. *Times of Malta.* <https://timesofmalta.com/articles/view/gay-books-will-not-be-distributed-in-schools.588391>

Ministeru ta' l-Edukazzjoni (1999). *L-Imgħiba tajba fl-iskejjel. Il-Politika Nazzjonali u l-Pjan ta' Azzjoni dwar l-Ibbuljar.* Furjana, Malta.

Ministry for the Family, Children's Rights and Solidarity (2017). *National Children's Policy.* <https://family.gov.mt/en/Documents/National%20Children%27s%20Policy%202017.pdf>

Ministry for Education and Employment (2012). *A National curriculum framework for all 2012.* Salesian Press.

Ministry for Education and Employment (2014a). *A national literacy strategy for all in Malta and Gozo 2014-2019.* Malta

Ministry for Education and Employment (2014b). *Addressing bullying behaviours in school. Policy.* Malta.

- Ministry for Education and Employment (2016). *Equitable quality education for all*. Malta. <http://www.myjourney.edu.mt/wp-content/uploads/2017/02/MY-JOURNEY-BOOKLET-WEB-UPLOAD-24FEB17.pdf>
- Mishna, F., Saini, M. & Solomon, S. (2009). Ongoing and online: Children and youth's perceptions of cyber bullying. *Children and Youth Services Review*, 12, 1222-1228. <https://doi.org/10.1016/j.chilyouth.2009.05.004>
- Mission Statement. (n.d.). <https://www.mca.org.mt/aboutmca/mission-statement>
- Mitchell, K., Finkelhor, D. & Wolak, J. (2007). Online requests for sexual pictures from youth: Risk factors and incident characteristics. *Journal of Adolescent Health*, 41, 196-203. <https://doi.org/10.1016/j.jadohealth.2007.03.013>
- Mitchell, K. J., Ybarra, M. L., Jones, L. M., & Espelage, D. (2016). What features make online harassment incidents upsetting to youth? *Journal of school violence*, 15(3), 279-301. <https://doi.org/10.1080/15388220.2014.990462>
- Morgan, D. L. (2007). Paradigms lost and pragmatism regained methodological implications of combining qualitative and quantitative methods. *Journal of mixed methods research*, 1(1), 48-76. <https://doi.org/10.1177%2F2345678906292462>
- Morgan, M., Gibbs, S., Maxwell, K., & Britten, N. (2002). Hearing children's voices: Methodological issues in conducting focus groups with children aged 7-11 years. *Qualitative Research*, 2(1), 5-20. <https://doi.org/10.1177%2F1468794102002001636>
- Morse, J. M. (1999). Qualitative methods: The state of the art. *Qualitative Health Research*, 9(3), 393-406. <https://doi.org/10.1177%2F104973299129121938>
- Moscovici, S. (1973) Foreword. In C. Herzlich, *Health and illness: A social psychological analysis*. Academic Press.
- Moscovici, S. (1984). The phenomenon of social representations. In Farr, R.M. & Moscovici, S. (Eds.). *Social representations*. Masion des Sciences de l'Homme and Cambridge University Press.

Munro, E. R. (2011). The protection of children online: a brief scoping review to identify vulnerable groups. *Childhood Wellbeing Research Centre*.

NFER (2010). Children's online risks and safety. A review of available evidence. Slough: National Foundation for Educational Research.

<https://www.nfer.ac.uk/publications/COJ01/COJ01.pdf>

Notten, N., & Nikken, P. (2016). Boys and girls taking risks online: A gendered perspective on social context and adolescents' risky online behavior. *New Media & Society*, 18(6), 966-988. <https://doi.org/10.1177%2F1461444814552379>

Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural equation modeling: A multidisciplinary Journal*, 14(4), 535-569.

<https://doi.org/10.1080/10705510701575396>

Ofcom (2011). *Children and parents: Media use and attitudes report*.

http://stakeholders.ofcom.org.uk/binaries/research/media-literacy/oct2011/Children_and_parents.pdf

Ofcom (2012). *Children and parents: Media use and attitudes report*.

<http://stakeholders.ofcom.org.uk/binaries/research/media-literacy/oct2012/main.pdf>

Ofcom (2013). *Children and parents: Media use and attitudes report*.

<http://stakeholders.ofcom.org.uk/binaries/research/media-literacy/october-2013/research07Oct2013.pdf>

Ofcom (2014). *Children and parents: Media use and attitudes report*.

http://stakeholders.ofcom.org.uk/binaries/research/media-literacy/media-use-attitudes-14/Childrens_2014_Report.pdf

Ofcom (2015). *Children and parents: Media use and attitudes report*.

http://stakeholders.ofcom.org.uk/binaries/research/media-literacy/children-parents-nov-15/childrens_parents_nov2015.pdf

Ofcom (2016). *Children and parents: Media use and attitudes report*.

https://www.ofcom.org.uk/data/assets/pdf_file/0034/93976/Children-Parents-Media-Use-Attitudes-Report-2016.pdf

Ofcom (2018). *Children and parents: Media use and attitudes report*.

https://www.ofcom.org.uk/data/assets/pdf_file/0024/134907/children-and-parents-media-use-and-attitudes-2018.pdf

Ofcom (2019). *Children and parents: Media use and attitudes report*.

https://www.ofcom.org.uk/data/assets/pdf_file/0023/190616/children-media-use-attitudes-2019-report.pdf

Office of the United Nations High Commissioner for Human Rights. (1989).

Convention on the rights of the child. (General Assembly resolution 44/25 of 20 November 1989). Geneva: United Nations. <http://www.unicef.org/crc>

Ogan, C., Karakus, T. & Cagiltay, K. (2009). Gender and teenage computer use and gaming Activity in Turkey and the United States. *Proceedings of the conference EU Kids Online*, UK, London, 11th June. <https://bit.ly/33ryrX2>

Ólafsson, K., Livingstone, S. & Haddon, L. (2013). *How to research children and online technologies? Frequently asked questions and best practice*. London: EU Kids Online, LSE.

O'Keeffe, G. S., Clarke-Pearson, K., & Council on Communications and Media. (2011). Clinical report the impact of social media on children, adolescents, and families. *Pediatrics*, 127 (4), 800 -804.

<https://pediatrics.aappublications.org/content/pediatrics/127/4/800.full.pdf>

O'Neill, B., & Hagen, I. Media literacy. In S. Livingstone and L. Haddon, (Eds). (2009). *Kids online. Opportunities and risks for children*. (pp. 229-239). Policy Press.

O'Reilly, T. & Battelle, J. (2009). *Web squared: Web 2.0 five years on*. http://assets.en.oreilly.com/1/event/28/web2009_websquared-whitepaper.pdf

Parliamentary Secretariat for Competitiveness and Economic Growth (2014). *Digital Malta. National digital strategy 2014-2020*. Malta.

<https://digitalmalta.org.mt/en/Documents/Digital%20Malta%202014%20-%202020.pdf>

Park, Y. (2019). DQ Global Standards Report 2019 Common Framework for Digital Literacy, Skills and Readiness. *Report. DQ Institute*. <https://www.dqinstitute.org/wp-content/uploads/2019/11/DQGlobalStandardsReport2019.pdf>

Parris, L., Varjas, K. Meyers, J. & Cutts, H. (2011). High school students' perceptions of coping with cyberbullying. *Youth Society*, 44, 284-306.

<https://doi.org/10.1177%2F0044118X11398881>

Paus-Hasebrink, I., Lampert, C., & Hasebrink, U. (2009). Social Network Sites - Challenges for Media Literacy. *Proceedings of the International Eu Kids Online Conference June 2009*. London School of Economics and Political Science. <https://bit.ly/3iro2kn>

Payne, M. (2013). *Neverseconds*, <http://neverseconds.blogspot.co.uk/>

Peck, D. (2008) Hanging out and growing up with social media. *Media Psychology Review*, 1(1). <http://mprcenter.org/review/peckhanging-out/>

Perren, S., Dooley, J., Shaw, T. & Cross, D. (2010). Bullying in school and cyberspace: Associations with depressive symptoms in Swiss and Australian adolescents. *Child and Adolescent Psychiatry and Mental Health*, 4, 1-10. <https://doi.org/10.1186/1753-2000-4-28>

Petre, M., & Rugg, G. (2010). *The unwritten rules of PhD research*. McGraw-Hill Education.

Plano Clark, V. L., & Creswell, J. W. (2008). *The mixed methods reader*. Sage.

Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology*, 52(2), 126.

Porcellato, L., Dughill, L., & Springett, J. (2002). Using focus groups to explore children's perceptions of smoking: Reflections on practice. *Health Education, 102*(6), 310-320. <https://doi.org/10.1108/09654280210446856>

Potter, J., & Litton, I. (1985). Some problems underlying the theory of social representations. *British Journal of Social Psychology, 24*(2), 81-90. <https://doi.org/10.1111/j.2044-8309.1985.tb00664.x>

Prasad, V., & Owens, D. (2001). Using the internet as a source of self-help for people who self-harm. *Psychiatric Bulletin, 25*(6), 222-225. <https://doi.org/10.1192/pb.25.6.222>

Prensky, M. (2001a, September/October). Digital natives, digital immigrants. *On the Horizon, 9*(5), 1-6. <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>

Prensky, M. (2001b). Digital natives, digital immigrants, Part II: Do they really think differently? *On the Horizon, 9* (6). <http://www.marcprensky.com/writing/prensky%20-%20digital%20natives,%20digital%20immigrants%20-%20part2.pdf>

Prensky, M. (2011). From digital immigrants and digital natives to digital wisdom. *Innovate, 5*(3). <http://www.innovateonline.info/index.php?view=article&id=705>

Primary sector - Personal and Social Development. (n.d.). <http://psd.skola.edu.mt/primary-sector/>

Principles for the safer use of connected devices and online services by children and young people in the EU. (2012). <http://www.ictcoalition.eu/medias/commitmentcontent/41/file/vodafone-ict-principles.pdf>

Pruulmann-Vengerfeldt, P. & Runnel, P. (2012). Online opportunities. In Livingstone, S., Haddon, L. and Görzig, A. (Eds). (2012). *Children, risk and safety on the internet* (pp 73-86). Policy Press.

Ringrose, J., Gill, R., Livingstone, S. & Harvey, L. (2012). *A qualitative study of children, young people and 'sexting': a report prepared for the NSPCC. National Society for the Prevention of Cruelty to Children, London, UK.* <http://eprints.lse.ac.uk/44216/>

Ringrose, J., Harvey, L., Gill, R., & Livingstone, S. (2013). *Teen girls, sexual double standards and 'sexting': Gendered value in digital image exchange* <https://doi.org/10.1177/1464700113499853>

Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *The Journal of Psychology*, 91(1), 93-114.
<https://doi.org/10.1080/00223980.1975.9915803>

Rolfe, G. (2006). Validity, trustworthiness and rigour: quality and the idea of qualitative research. *Journal of Advanced Nursing*, 53(3), 304-310.
<https://doi.org/10.1111/j.1365-2648.2006.03727.x>

Rose, D., Efrain, D., Gervais, M., Joffe, H., Jovchelovitch, S., & Morant, N. (1995). Questioning consensus in social representations theory. *Papers on Social Representations*, 4(2), 150-176.

Rossmann, G. B., & Rallis, S. F. (2012). *Learning in the field: An introduction to qualitative research*. Sage.

Rovolis, A., & Tsaliki, L. (2012). Pornography. In Livingstone, S., Haddon, L. and Görzig, A. (Eds). (2012). *Children, risk and safety on the internet*. (165-176). Policy Press.

Rubleske, J. & Berente, N. (2017). A pragmatist perspective on entrepreneurial opportunities. *International Journal of Innovation Science*, 9(2), 121-136.
<https://doi.org/10.1108/IJIS-09-2016-0031>

Rutledge, P. (2010). What is media psychology? And why you should care. *Media Psychology Research Center*. http://www.apa.org/divisions/div46/Rutledge_What-is-Media-Psychology.pdf

Safer Internet Centre in Malta - EU Safer Internet Programme. (n.d.).

<http://www.besmartonline.org.mt/>

Salvoni, J. (2009). *Parents and internet safety - HCI discussion groups report*.

London: Department for Children, Schools and Families.

http://childnetsic.s3.amazonaws.com/downloads/Research_Highlights/DFE_Report_on_parental_attitudes_to_internet_safety.pdf

Sammut, G., Andreouli, E., Gaskell, G., & Valsiner, J. (2015). Social representations: a revolutionary paradigm? In G. Sammut, E. Andreouli, G. Gaskell & J. Valisner (Eds), *The Cambridge Handbook of Social Representations* (pp. 3-11). Cambridge University Press.

Sant, T. (2009). Growing up in a global village: Young people and the internet in Malta. In J.Borg, A. Hillman and M.A. Lauri, (Eds.) *Exploring the Maltese Media Landscape*, (51-61). Allied Publications.

Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching*, 5(9), 9.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75. <https://doi.org/10.3233/EFI-2004-22201>

Shrader-Frechette, K. S. (1994). *Ethics of scientific research*. Rowman & Littlefield.

Silverman, D. (2013). *Doing qualitative research: A practical handbook*. SAGE Publications Limited.

Sinner, P., Prochazka, F., Paus-Hasebrink, I. & Farrugia, L. (2013). FAQ 34: What are good approaches to conducting focus groups with children? In Ólafsson, K., Livingstone, S. & Haddon, L. (2013). *How to research children and online technologies? Frequently asked questions and best practice*. London: EU Kids Online, LSE.

Sjöberg, L. (2007). Emotions and risk perception. *Risk Management*, 9(4), 223-237.

<https://doi.org/10.1057/palgrave.rm.8250038>

Skinner, A. T., Babinski, L. M., & Gifford, E. J. (2014). Teachers' expectations and self-efficacy for working with bullies and victims. *Psychology in the Schools, 51*(1), 72-84.

<https://doi.org/10.1002/pits.21735>

Slater, M.D., Henry, K.L., Swaim, R.C., & Cardador, J.M. (2004). Vulnerable teens, vulnerable times: How sensation seeking, alienation, and victimization moderate the violent media content–aggressiveness relation. *Communication Research, 31*(6), 642-558.

<https://doi.org/10.1177%2F0093650204269265>

Šleglova, V., & Cerna, A. (2011). Cyberbullying in adolescent victims: Perception and coping. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 5*(2),

<https://cyberpsychology.eu/article/view/4248>

Slovic, P. (2010). *The feeling of risk. New perspectives on risk perception*. Routledge.

Slovic, P., Finucane, M. L., Peters, E. & MacGregor, D. G. (2010). Risk as analysis and risk as feelings: Some thoughts about affect, reason, risk and rationality. In Slovic, P. (2010). *The feeling of risk. New perspectives on risk perception* (pp. 21-36). Routledge.

Smahel, D. & Wright, M. F. (eds) (2014). *Meaning of online problematic situations for children. Results of qualitative cross-cultural investigation in nine European countries*. London: EU Kids Online, London School of Economics and Political Science.

Smahel, D., Machackova, H., Mascheroni, G., Dedkova, L., Staksrud, E., Ólafsson, K., Livingstone, S., and Hasebrink, U. (2020). *EU Kids Online 2020: Survey results from 19 countries*. EU Kids Online. <https://doi.org/10.21953/lse.47fdeqj01ofo>

Smith, P., Mahdavi, J., Carvalho, M. & Tippett, N. (2005). *An investigation into cyberbullying, its forms, awareness and impact, and the relationship between age and gender in cyberbullying*. <https://static.lgfl.net/LgflNet/downloads/online-safety/LGfL-OS-Research-Archive-2006-Goldsmiths-Cyberbullying.pdf>

- Smith, P.K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S. & Tippett, N. (2008). Cyberbullying: Its nature and impact in secondary school pupils. *Journal of Child Psychology and Psychiatry*, 49, 376-385. <https://doi.org/10.1111/j.1469-7610.2007.01846.x>
- Staksrud, E. & Livingstone, S. (2009). Children and online risk: powerless victims or resourceful participants? *Information, Communication and Society*, 12 (3), 364-387. <https://doi.org/10.1080/13691180802635455>
- Stanaland, A. J., Lwin, M. O., Yeang-Cherng, P., & Chong, C. (2015). Protecting preteens on Facebook: An exploratory examination of parental mediation strategies for children's Facebook use in Singapore. *Studies in Media and Communication*, 3(1), 56-61. <https://doi.org/10.11114/smc.v3i1.809>
- Statista.com (2020). Number of monthly active Facebook users worldwide as of 2nd quarter 2020. <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>
- Steinberg, L. (2011). *Adolescence* (9th ed.). McGraw Hill.
- Stirland, S. L. (2008a). The Obama campaign: A great campaign, or the greatest? <http://www.wired.com/threatlevel/2008/11/the-obama-campa/>
- Stirland, S. L. (2008b). Obama's secret weapon: Internet, databases and psychology. <http://www.wired.com/threatlevel/2008/10/obamas-secret-w/>
- Subrahmanyam, K., Greenfiel, P., Kraut, R. & Gross, E. (2001). The impact of computer use on children's and adolescents' development. *Applied Developmental Psychology*, 22, 7-30. [https://doi.org/10.1016/S0193-3973\(00\)00063-0](https://doi.org/10.1016/S0193-3973(00)00063-0)
- Suler, J. (2004). The online disinhibition effect. *CyberPsychology & Behavior*, 7(3), 321-326. <https://doi.org/10.1089/1094931041291295>
- Tablets: all you need to know. (2014). <http://www.timesofmalta.com/articles/view/20141020/local/Tablets-all-you-need-to-know.540411>

Tashakkori, A., & Teddlie, C. (1998). Introduction to mixed method and mixed model studies in the social and behavioral sciences. In *Mixed methodology: Combining qualitative and quantitative approaches* (pp. 3-19). Sage.

Tarapdar, S. & Kellett, M. (2011). Young people's voices on cyber bullying: What can age comparisons tell us. Diana Award. <http://diana-award.org.uk/news-events/new-research-shows-cyber-bullying-is-on-the-increase>

Teachers obliged to report bullying (2014).
<http://www.timesofmalta.com/articles/view/20141110/local/teachers-obliged-to-report-bullying.543453>

Temple, J. R., Le, V. D., van den Berg, P., Ling, Y., Paul, J. A., & Temple, B. W. (2014). Brief report: Teen sexting and psychosocial health. *Journal of Adolescence*, 37(1), 33-36. <https://doi.org/10.1016/j.adolescence.2013.10.008>

The National Centre for Freedom from Addictions. (2017). *The prevalence of Problematic Internet Use in Malta among young persons aged 13–16 years: A quantitative research study*. Malta, San Anton Palace: The President's Foundation for the Wellbeing of Society.

Thornberg, R. (2010). Schoolchildren's social representations on bullying causes. *Psychology in the Schools*, 47(4), 311-327. <https://doi.org/10.1002/pits.20472>

Thornberg, R. (2015). Distressed bullies, social positioning and odd victims: Young people's explanations of bullying. *Children & Society*, 29(1), 15-25.
<https://doi.org/10.1111/chso.12015>

Thornberg, R., & Knutsen, S. (2011). Teenagers' explanations of bullying. *Child & Youth Care Forum*, 40(3) 177-192. <https://doi.org/10.1007/s10566-010-9129-z>

Tobin, G. A., & Begley, C. M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*, 48(4), 388-396. <https://doi.org/10.1111/j.1365-2648.2004.03207.x>

Tomm, K. (1988). Interventive interviewing: Part III. Intending to ask lineal, circular, strategic, or reflexive questions?. *Family Process*, 27(1), 1-15. <https://doi.org/10.1111/j.1545-5300.1988.00001.x>

Trafford, V., & Leshem, S. (2008). *Stepping stones to achieving your doctorate: By focusing on your viva from the start: Focusing on your viva from the start*. McGraw-Hill Education.

Tsitsika, A., Tzavela, E., Mavromati, F., & EU NET ADB Consortium. (2012). Research on internet addictive behaviours among European adolescents (EU NET ADB Project). *Athens: National and Kapodestrian University of Athens*.

Tuli, F. (2011). The basis of distinction between qualitative and quantitative research in social science: Reflection on ontological, epistemological and methodological perspectives. *Ethiopian Journal of Education and Sciences*, 6(1).
<https://doi.org/10.4314/ejesc.v6i1.65384>

Tunariu, A. D., & Reavey, P. (2007). Common patterns of sense making: A discursive reading of quantitative and interpretative data on sexual boredom. *British Journal of Social Psychology*, 46(4), 815-837. <https://doi.org/10.1348/014466607X177669>

Turkle, S. (1995). *Life on the screen: Identity in the age of the internet*. Touchstone.

Tynes, B. M. (2007). Internet safety gone wild? Sacrificing the educational and psychosocial benefits of online social environments. *Journal of Adolescent Research*, 22 (6), 575-584. <https://doi.org/10.1177/0743558407303979>

UKCCIS (2012). *Internet and mobility: youth technology trends*.
http://childnetsic.s3.amazonaws.com/downloads/Research_Highlights/Technology_Trends_Report_-_web_version.pdf

UNICEF. (2011). *Child safety online: Global challenges and strategies*. UNICEF Innocenti Research Centre. http://www.unicef.org/pacificislands/ict_eng.pdf

U.S. Congress (1998). *Children's Online Privacy Protection Act*, 15 U.S.C. §§ 6501–6506. <https://www.law.cornell.edu/uscode/text/15/6502>

Valkenburg, P.M. & Peter, J. (2007). Internet communication and its relation to well-being: Identifying some underlying mechanisms. *Media Psychology*, 9, 43-58.
<https://doi.org/10.1080/15213260709336802>

Valkenburg, P. M., Sumter, S. R., & Peter, J. (2011). Gender differences in online and offline self-disclosure in preadolescence and adolescence. *British Journal of Developmental Psychology*, 29(2), 253-269. <https://doi.org/10.1348/2044-835X.002001>

Vanden Abeele, M. M., Antheunis, M. L., Pollmann, M. M., Schouten, A. P., Liebrecht, C. C., Van Der Wijst, P. J., ... & Maes, F. A. (2018). Does Facebook use predict college students' social capital? A replication of Ellison, Steinfield, and Lampe's (2007) study using the original and more recent measures of Facebook use and social capital. *Communication Studies*, 69(3), 272-282.
<https://doi.org/10.1080/10510974.2018.1464937>

Vossen, H.G.M., Piotrowski, J.T., Valkenburg, P.M. (2014) Media use and effects in childhood. In J.F. Nussbaum (Ed.), *The Handbook of Lifespan Communication* (pp. 93-112). Peter Lang Publishing.

Wagner, W., Duveen, G., Farr, R., Jovchelovitch, S., Lorenzi-Cioldi, F., Markova, I., & Rose, D. (1999). Theory and method of social representations. *Asian Journal of Social Psychology*, 2(1), 95-125. <https://doi.org/10.1111/1467-839X.00028>

Warmann, M. (2011). Mark Zuckerberg: children should be allowed to use Facebook. The Telegraph. <http://www.telegraph.co.uk/technology/facebook/8533429/Mark-Zuckerberg-children-should-be-allowed-to-use-Facebook.html>

Weitzman, E. A. (2000). Software and qualitative research. *Handbook of Qualitative Research*, 2, 803-820.

Welsh, E. (2002). Dealing with Data: Using NVivo in the Qualitative Data Analysis Process. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, (Vol. 3, No. 2). <http://dx.doi.org/10.17169/fqs-3.2.865>.

Wenninger, H., Krasnova, H., & Buxmann, P. (2019). Understanding the role of social networking sites in the subjective well-being of users: a diary study. *European Journal of Information Systems*, 28(2), 126-148. <https://doi.org/10.1080/0960085X.2018.1496883>

Wheeldon, J. (2015). Ontology, epistemology, and irony: Richard Rorty and re-imagining pragmatic criminology. *Theoretical Criminology*, 19(3), 396-415. <https://doi.org/10.1177%2F1362480614545676>

Whiting, A., & Williams, D. (2013). Why people use social media: A uses and gratifications approach. *Qualitative Mrkt Res: An Int J*, 16(4), 362-369. <https://doi.org/10.1108/QMR-06-2013-0041>

Whitlock, J. L., Powers, J. L., & Eckenrode, J. (2006). The virtual cutting edge: The internet and adolescent self-injury. *Developmental Psychology*, 42(3), 407.

Wildavsky, A. & Dake, K. (1990). Theories of risk perception. Who fears what and why? *Daedalus*, 119 (4), 41-60.

Williams, M., Nurse, J. R., & Creese, S. (2019). (Smart) Watch Out! encouraging privacy-protective behavior through interactive games. *International Journal of Human-Computer Studies*, 132, 121-137. <https://doi.org/10.1016/j.ijhcs.2019.07.012>

Willis, J. W. (2007). *Foundations of qualitative research: Interpretive and critical approaches*. Sage.

Wilton, C. & Campbell, M. A. (2011). An exploration of the reasons why adolescents engage in traditional and cyber bullying. *Journal of Educational Sciences & Psychology*, 1(2), 101-109.

Wood, R., & Atkinson, S. (2011). The mediation of online safeguarding by primary school teachers: Perspectives from students completing a PGCE programme. *Proceedings from the EU Kids Online II Final Conference, September 2011*.

World Bank (2020). Population, total.

<https://data.worldbank.org/indicator/SP.POP.TOTL>

Yardi, S., & Bruckman, A. (2011). Social and technical challenges in parenting teens' social media use. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 3237-3246.

Ybarra, M., Espelage, D. & Mitchell, K. (2007). The Co-occurrence of internet harassment and unwanted sexual solicitation victimization and perpetration: Associations with psychosocial indicators. *Journal of Adolescent Health*, 41, 31-41.

<https://doi.org/10.1016/j.jadohealth.2007.09.010>

Yelland, N. J. (2010). New technologies, playful experiences and multimodal learning. In Berson, I. R., & Berson, M. J. (Eds.), *High-tech tots: Childhood in a digital world* (pp 5-22). IAP.

Youn, S. (2005). Teenagers' perceptions of online privacy and coping behaviors: A Risk–Benefit appraisal approach. *Journal of Broadcasting & Electronic Media*, 49(1), 86-110. https://doi.org/10.1207/s15506878jobem4901_6

Youn, S. (2009). Determinants of online privacy concern and its influence on privacy protection behaviours among young adolescents. *The Journal of Consumer Affairs*, 3, 389-418. <https://doi.org/10.1111/j.1745-6606.2009.01146.x>

Young, R., Subramanian, R., Miles, S., Hinnant, A., & Andsager, J. L. (2017). Social representation of cyberbullying and adolescent suicide: A mixed-method analysis of news stories. *Health communication*, 32(9), 1082-1092.

<https://doi.org/10.1080/10410236.2016.1214214>

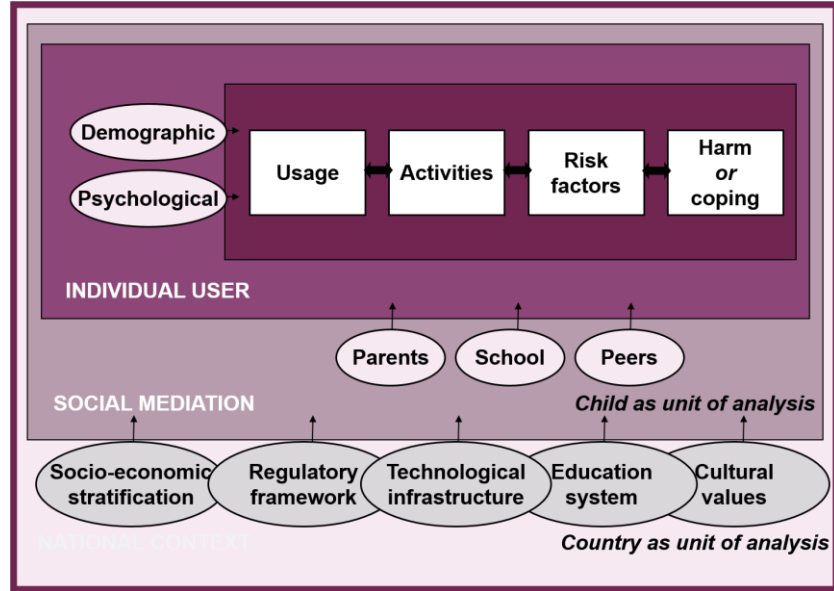
Zachariadis, M., Scott, S. V., & Barrett, M. I. (2013). Methodological implications of critical realism for mixed-methods research. *MIS Quarterly*, 37(3), 855-879.

Zero tolerance is the aim of new policy on bullying (2014).

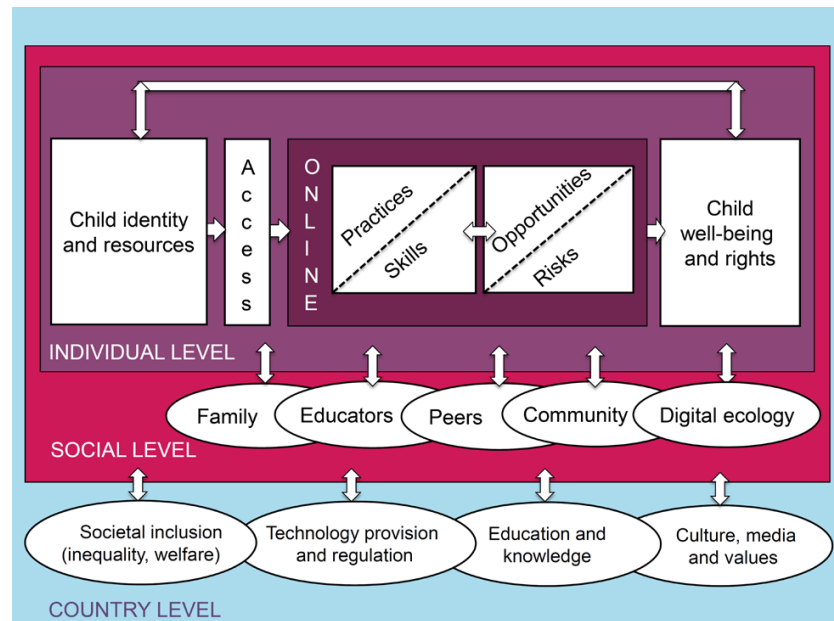
<http://www.timesofmalta.com/articles/view/20141111/local/Zero-tolerance-is-the-aim-of-new-policy-on-bullying.543514>

Appendix 1

The EU Kids Online Model



The EU Kids Online Model (revised)



Appendix 2

SURVEY

Questionnaire on Internet Use

We would be very happy if you help us in this study about children and the internet by filling out this questionnaire. If you have any questions you can contact me on this email:

lorleen.farrugia@um.edu.mt. Thank you!

Lorleen Farrugia

Section A

1. Gender

- Male
 Female

2. Age

- | | |
|-----------------------------|-----------------------------|
| <input type="checkbox"/> 8 | <input type="checkbox"/> 12 |
| <input type="checkbox"/> 9 | <input type="checkbox"/> 13 |
| <input type="checkbox"/> 10 | <input type="checkbox"/> 14 |
| <input type="checkbox"/> 11 | <input type="checkbox"/> 15 |

3. School: _____

4. Year:

- | | |
|---------------------------------|---------------------------------|
| <input type="checkbox"/> Year 4 | <input type="checkbox"/> Form 1 |
| <input type="checkbox"/> Year 5 | <input type="checkbox"/> Form 2 |
| <input type="checkbox"/> Year 6 | <input type="checkbox"/> Form 3 |
| | <input type="checkbox"/> Form 4 |

Section B

5. Where do you access the internet from? (You may tick (✓) more than 1)

- From home
 From my bedroom
 From school
 From a friend's house
 From a relative's house
 From public places (Youth Centre, Local Council, Public Garden)
 From shops (e.g. Internet Café, Restaurant)
 From another place. Please specify _____

6. Which of the following do you own? (You may tick (✓) more than 1)
- Computer
 - Laptop
 - Mobile phone
 - Tablet
 - Game Console (e.g. Xbox, PlayStation, Wii)
 - Other. Please specify _____
7. Which of these do you use to access the internet? (You may tick (✓) more than 1)
- Computer
 - Laptop
 - Mobile phone
 - Tablet
 - Game Console (e.g. Xbox, PlayStation, Wii)
 - Other. Please specify _____

Section C

8. How often do you use the internet? (Tick (✓) only one)
- Everyday
 - 4-6 days a week
 - 2-3 days a week
 - Once a week
 - Less than once a week
9. How much time do you spend using the internet every day on a week day (Monday to Friday)? (Tick (✓) only one)
- Less than 30 minutes
 - Less than 1 hour
 - Less than 2 hours
 - Less than 3 hours
 - Less than 4 hours
 - Less than 5 hours
 - Over 5 hours
 - I am always online
10. How much time do you spend using the internet every day during the weekend (Saturdays and Sundays)? (Tick (✓) only one)
- Less than 30 minutes
 - Less than 1 hour
 - Less than 2 hours
 - Less than 3 hours
 - Less than 4 hours
 - Less than 5 hours

- Over 5 hours
- I am always online

11. Which of these activities do you do on the internet?
(You may tick (✓) more than 1)

- School Work
- Browsing
- Playing games
- Social Networking (e.g. Facebook)
- Chatting
- Email
- Video calling (e.g. Skype)
- Downloading music or films
- Streaming music or films
- Watching Videos online (e.g. YouTube)
- Blogging
- Online shopping
- Other. Please specify: _____

12. Tick any of these that you have an account with. (You may tick (✓) more than 1)

- Facebook
- Twitter
- Tumblr
- Skype
- Google/Gmail
- iTunes
- Club Penguin
- Miniclip
- Playstation Network
- MSN/XBOX Live
- Club Nintendo
- Pinterest
- Ask.fm
- Ebay
- Snapchat
- Instagram
- MSN
- LinkedIn
- Other. Please specify: _____

13. Which of the following information about you is available on the internet? (You may tick (✓) more than 1)
- True Name
 - Fake Name
 - Photo/s of you
 - Real Date of Birth
 - Invented Date of Birth
 - The name of your school
 - Email Address
 - Home Address
 - Location
 - Home Number
 - Mobile Number
 - Other. Please specify: _____
14. How many of these activities have you done in the past week? (You may tick (✓) more than 1)
- Used Facebook to play games
 - Used Facebook to send or receive messages, chat, or to upload photos or posts
 - Played games on a mobile or tablet
 - Sent an e-mail
 - Posted photo or posted/received comments on Instagram
 - Used Twitter
 - Sent/received photos on Snapchat
 - Kept a photo that was sent to me on Snapchat
 - Used Tumblr
 - Posted a video on YouTube
 - Posted/received/answered questions on Ask.fm
 - Used location services to “check in” or share location
 - Other. Please specify: _____

Section D

15. Tick (✓) the ones that you agree with. (You may tick more than 1)
- It is important to use privacy settings on Social Networking Sites
 - The internet is a safe place for people my age
 - It is safe to meet new people over the internet
 - There are no risks when posting photos of oneself on a social network
 - I would be willing to meet someone I made friends with over the internet
 - It is fine to post things publicly on Social Networking Sites
 - I am not worried about the personal information there is about me on the internet for others to see
 - Others may post photos of me without my permission
 - It is OK to call people names or write rude remarks on them online

16. According to you, which of the following is the most dangerous thing on the internet?
(Tick (✓) only one)
- Viruses
 - Hacking
 - Content which is inappropriate for my age
 - Being contacted by strangers online
 - Pop-Ups
 - Unpleasant or inappropriate comments
 - Unpleasant or inappropriate pictures
 - Unpleasant or inappropriate videos
 - Other. Please specify: _____
17. Tick (✓) the ones who know any of your passwords
- Parent/Guardian
 - Friend
 - Brother/Sister
 - Other. Please specify: _____
 - No one knows my passwords

Section E – Please turn the page

Section F

21. Where would you prefer to get information about safety on the internet? (You may tick (✓) more than 1)
- TV
 - School
 - Parents
 - Friends
 - Online
 - Other. Please specify: _____
22. Tick (✓) the ones you know how to do. (You may tick more than 1):
- Bookmark a website
 - Block messages from someone you don't want to hear from
 - Find information on how to use internet safety
 - Change privacy settings on a social networking profile
 - Compare different websites to decide if the information is true
 - Delete 'history' of sites visited
 - Remove adverts, junk mail or spam
 - Change filter preferences
23. Tick (✓) those of the following which you have done. (You may tick more than 1)
- Set auto lock with password on mobile, computer or tablet
 - Set privacy settings so only friends see what you post
 - Asked someone to remove a post with personal information or photo
 - Removed personal information included in a post
 - Set privacy settings on social networks so that your name doesn't come up on search
 - Used different passwords
 - Turned off/disabled cookies

Section G

24. Have you ever seen this logo?



- Yes
- No

25. If yes, where did you see this logo? (You may tick (✓)more than 1)
- On TV
 - At school
 - At home
 - Other. Please specify: _____

26. What do you associate this logo with?

For further information, you may contact Ms Lorleen Farrugia via lorleen.farrugia@um.edu.mt

For help and support services kindly contact **Helpline 179**

Appendix 3

SURVEY INFORMATION LETTER AND CONSENT FORM FOR

PARENTS/GUARDIANS

Dear Sir/Madam,

I am a PhD candidate within the Faculty of Social Wellbeing at the University of Malta. I am currently carrying out my research entitled “Children and New Media. A Psychosocial Approach to Understanding how Preadolescents Make Sense of Online Risks”, where I will be investigating children’s perceptions and experiences of online risks and safety. My supervisors are Prof. Mary Anne Lauri (University of Malta) and Prof. Giovanna Mascheroni (Università Cattolica del Sacro Cuore, Milano).

For the purpose of this research, I will be conducting a survey, focus groups and observations with children aged 9-12 who have internet access at home and use the internet more than once a week. I would like to invite your son/daughter to participate in this research. This will involve participating in a survey where they will be asked for information about internet use, activities they carry out online, risks and safety online.

Your child’s participation in this study is voluntary. If you do accept to allow your child to participate you can rest assured that your child’s identity will not be disclosed and their real name will not be used. Your child would also be free to withdraw at any time from the study should s/he decide to do so.

Your help would be greatly appreciated and valuable to help in understanding the experiences that children have online, and to enable us to support other parents and children in their experiences online. If you agree that your child participates in the study, kindly sign the consent form attached.

Whilst thanking you for your attention, I look forward to hearing from you.

Yours sincerely,



Lorleen Farrugia

lorleen.farrugia@um.edu.mt

+356 99170481

Children and New Media. A Psychosocial Approach to Understanding how Preadolescents Make Sense of Online Risks.

Researcher: Ms. Lorleen Farrugia
19, San José, Victory Street, Qormi. QRM2500
+356 99170481

Study: The study will investigate the perceptions and experiences of online risks and safety in children aged between 9 and 12. The information gathered will be analysed to understand the children's views about the subject.

Guarantees: The researcher will abide by the following conditions:

- Your child's real name will not be used in the study.
- Only the researcher and her tutors will have access to the data collected.
- Your child is free to quit the study at any point and for whatever reason. In case your child decides to withdraw from the study, all the records and information collected will be destroyed.
- There is no deception involved in the data collection process.
- Conclusions from the research process will be communicated to you either verbally or in writing.

I _____ parent/guardian of _____ consent that my s/he participates in the study given that the researcher abides by the conditions outlined above.

Signature: _____

Date: _____

Researcher:



Date: _____

Appendix 4

SURVEY ASSENT FORM

My name is Lorleen Farrugia and I am studying how children use the internet and what they think about it. I would like to ask you some questions about the topic. These questions will be asked during a lesson. I will give you some sheets to fill in with my questions



Your answers will be private. I will not tell your teachers or your family what you reply. I will not use your real name when I write about what you replied and I will not mention the name of your school so that no one knows who you are.



If at any point and for whatever reason you decide that you do not want to take part in the study anymore, you are free to do so. In case you decide to do so, all the information collected about you will be removed.

You can say yes or no. It is up to you whether you take part. If you accept to answer these questions, I would be very grateful if you could sign below and return it to school.

I understand that the replies will be private.

I understand that I can stop taking part at any time.

If you understand these, you now need to decide whether you would like to take part in the project.

I have decided that I would like to talk to Lorleen about her project about children and the internet. Please tick yes or no depending on what you decide.

YES

NO

Please sign your name

Appendix 5

FOCUS GROUPS INFORMATION LETTER FOR PARENTS/GUARDIANS

Dear Sir/Madam,

I am a PhD candidate within the Faculty of Social Wellbeing at the University of Malta. I am currently carrying out my research entitled “Children and New Media. A Psychosocial Approach to Understanding how Preadolescents Make Sense of Online Risks.”, where I will be investigating children’s perceptions and experiences of online risks and safety. My supervisors are Prof. Mary Anne Lauri (University of Malta) and Prof. Giovanna Mascheroni (Università Cattolica del Sacro Cuore, Milano).

For the purpose of this research, I will be conducting a survey, focus groups and observations with children aged 9-12 who have internet access at home and use the internet more than once a week. I would like to invite your son/daughter to participate in this research. This will involve participating in a one-time focus group of approximately 1 hour, where together with other children s/he will discuss matters related to their use of the internet and their online experiences. With your permission, the focus group will be audio recorded for the purpose of the study. Moreover, a suitable time will be chosen in collaboration with the school so that no students will miss lessons of core subjects.

Your child’s participation in this study is voluntary. If you do accept to allow your child to participate you can rest assured that your child’s identity will not be disclosed and their real name will not be used. Your child would also be free to withdraw at any time from the study should s/he decide to do so.

Your help would be greatly appreciated and valuable to help in understanding the experiences that children have online, and to enable us to support other parents and children in their experiences online. If you agree that your child participates in the study, kindly sign the consent form attached by the 19th October and return it to the school.

Whilst thanking you for your attention, I look forward to hearing from you.

Yours sincerely,

Lorleen Farrugia B. Psy (Hons)(Melit.), M. Youth & Community Studies (Melit.)



lorleen.farrugia@um.edu.mt

+356 99170481

Appendix 6

FOCUS GROUPS CONSENT FORM FOR PARENTS/GUARDIANS

Children and New Media. A Psychosocial Approach to Understanding how Preadolescents Make Sense of Online Risks.

Researcher: Ms. Lorleen Farrugia

19, San José, Victory Street, Qormi. QRM2500

+356 99170481

Study: The study will investigate the perceptions and experiences of online risks and safety in children aged between 9 and 12. The information gathered from the Focus Group will be analysed to understand the children's views about the subject.

Guarantees: The researcher will abide by the following conditions:

- Your child's real name will not be used in the study.
- Only the researcher and her tutors will have access to the data collected.
- The focus groups will be audio recorded and the recordings will be destroyed once the research is completed.
- Your child is free to quit the study at any point and for whatever reason. In case your child decides to withdraw from the study, all the records and information collected will be destroyed.
- There is no deception involved in the data collection process.
- Conclusions from the research process will be communicated to you either verbally or in writing.

I _____ parent/guardian of _____ consent

that my s/he participates in the study given that the researcher abides by the conditions outlined above.

Signature: _____ Date: _____

Researcher:



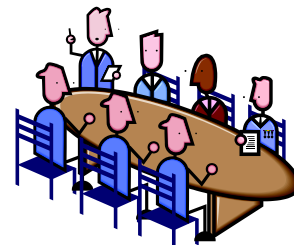
Date: 03.10.2016

Appendix 7

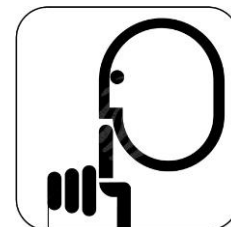
FOCUS GROUPS ASSENT FORM

Children and the Internet Discussion

My name is Lorleen Farrugia and I am studying how children use the internet and what they think about it. I would like to ask you some questions about the topic during a group discussion. In the group discussion there will be other children your age sitting around a table in a room in your school and I will ask you to discuss some questions about the internet and how you use it. The discussion will last about 1 hour.



Our discussion will be private. I will not tell your teachers or your family what you say. I will record the group discussion to help me with my research. Only I will listen to these recordings. I will not use your real name when I write about what we discussed and I will not mention the name of your school so that no one knows who you are.



If at any point and for whatever reason you decide that you do not want to take part in the study anymore, you are free to do so. In case you decide to do so, all the information collected about you will be removed.

You can say yes or no. It is up to you whether you take part. If you accept to talk to me, I would be very grateful if you could sign below and return it to school.

- I understand that the discussion will be recorded.
- I understand that the discussion will be private.
- I understand that I can stop the discussion at any time.

If you understand these, you now need to decide whether you would like to take part in the project.

I have decided that I would like to talk to Lorleen about her project about children and the internet. Please tick yes or no depending on what you decide.

YES NO

Please sign your name

Appendix 8

PRE-FOCUS GROUP SHEET

Name: _____

Age: _____

School: _____

Where do you live? _____

Mother's Occupation: _____

Father's Occupation: _____

What do you think about these? Tick (✓) one of the boxes:	Yes	No	Don't Know
It is important to use privacy settings on Social Networking Sites			
The internet is a safe place for people my age			
It is safe to meet new people over the internet			
There are no risks when posting photos of oneself on a social network			
I would be willing to meet someone I made friends with over the internet			
It is fine to post things publicly on Social Networking Sites			
I am not worried about the personal information there is about me on the internet for others to see			
Others may post photos of me without my permission			
It is OK to call people names or write rude remarks on them online			

What do you understand by “things which are unpleasant or inappropriate on the internet”?

What is the worst thing that can happen online to someone your age?

Appendix 9

FOCUS GROUP GUIDE

Introduction

Section A

- Introductions – Name, School, Age
- How do you use the internet?
- What sort of things do you do online?

Section B

- What things should children your age be careful of when they go online? Why?
- What do you understand by “things which are unpleasant or inappropriate on the internet”?
- What is the worst thing that can happen online to someone your age?

Section C

- Was there anything in particular that was not very pleasant that happened to you online?
- What did you do?
- How did you feel?
- How did it affect you?

Section D

- What sort of things should one do online to be careful that nothing unpleasant or inappropriate happens to them?

Conclusion

- Is there anything else about the internet that you think is important that we mention?

Debriefing

Appendix 10

EXTRACT FROM CODEBOOK

Name	Description	Sources	References
Defensive	When they take a (risky) action but talk about it in a defensive way; I did it... but classify it in some way or another to show they are careful. In a way defensive is latent coding - there is a bit of interpretation here. What they are doing is classifying / explaining why they take a specific action in that way.	6	62
Mistake	When children mention making mistakes online or not noticing or realising things	5	11
Never did this	When they talk about something and they immediately mention that they haven't done this themselves	1	3
Never experienced this	Children mentioning instances or risky situations but specifying that they do not have a direct experience of this themselves	2	4
Non-use	Children claiming that they know about specific applications and immediately mention they do not use them	5	22
Only reason I use Facebook	Explaining the reason for underage Facebook use as being “the only reason”	1	1
Not on purpose	Children claiming that they carried out a specific action online, but that it was a mistake	1	1
Rationalisation	Children explaining their risky behaviours	1	2

Appendix 11**TRANSCRIPTION CONVENTIONS**

<i>Italics</i>	Indicates non-verbal behaviour
...	Indicates a pause
(...)	Indicates that a part of the transcript unrelated to the specific excerpt that has been omitted for continuity
[]	Used when additional information that clarifies or describes the excerpt is included
R	Researcher
UPX	When the participant speaking could not be identified during the transcription process. X indicates the Focus Group number.

Appendix 12

SNAP CHAT U OMEGLE ĦAFNA AGĦAR MINN TALKING ANGELA

[Sign In / Register](#)


Fittex

TVM | [AHBARIJJET >](#) | [SPORT](#) | [KURŻITAJJET](#) | [EKONOMIJA](#) | [TV >](#) | [RADJU >](#) | [EUROVISION >](#) | [DJARJU 247](#) | [JESC >](#) | [MESC 2018](#)


LOKALI

Snap Chat u Omegle ħafna agħar minn Talking Angela


MITELLA' LULJU 7, 2014 - AGĠORNATA 11 TA' MEJJU, 2017 9:20AM




NEWS BULLETIN




L-AKTAR SEGWITI/ LI NQRRAW



Qatluha lil binha f'attakk terroristiku... izda hi stinkat għall-paċi




Irgjel minn Haż-Zabbar akkużati li




Il-Qorti terġa' tagħti l-ħelsien lir-raġel li qed jistenna jgħaddi guri fuq qtil

RAPIPORT: NIGEL MIFSUD




AHBARIJJET OĦRA




X'jahsbu l-importaturi Maltin tal-karozzi dwar il-vetturi elettrici?

SETTEMBRU 21, 2017




Qalilha li fadiilha biss f'tit xhur hajja - qed tittama f'miraklu

SETTEMBRU 21, 2017



Jiċċelebraw l-Indipendenza b'qadfa bir-roti f'toroq vojta

SETTEMBRU 21, 2017



Malti fi New York: Kienu jistaqsuh fejn hi Malta, illum jistaqsuh kif telag minha

CHAT WITH ANGELA, SHE ACTUALLY ANSWERS.

Il-fenominu tal-apps fuq it-tablets u l-smartphones għalkemm komdu f'hafna kazi, qed johloq perikli godda.

App bl-isem ta' 'Talking Angela', qed tħasseb lil genituri minhabba li tistaqsi dettalji privati.

L-app, li tista' titnizzel fuq tablet jew smartphone, hija forma ta' konversazzjoni ma' qattusa, li tistaqsi għall-isem, u l-post fejn jogħhod min ikun qed ikellimha fost diversi dettalji personali oħra.

Talking Angela qajmet furur fl-Ingilterra wara messagg fuq Facebook li wissa lill-genituri biex jifihu għajnejhom għal perikli li din l-app jista' jkollha għal uliedhom.

Genituri li kkuntattjaw liċ-ċentru tal-aħbarijiet esprimew it-tħassib tagħhom dwar din l-app, wara li qalulhom biha wliedhom.

Deborah Vassallo, Uffiċjal tal-Agenzija Appogg stqarret ma' tvm.com.mt li hi stess nizzlet din l-app u kellha diversi dubji dwarha u investigat il-perikli tagħha.

Qalet li meta kkomunikaw maċ-ċentru safer internet tal-Ingilterra, qalulhom li l-informazzjoni li harġet fil-mezzi tal-media kienet falza filwaqt li assicuraw li ma kienx hemm il-periklu li qed jingħad.

Mistoqsija jekk kinux irrapporati kazi ta' tħassib dwar apps jew siti oħra fuq l-Internet, is-Sinjura Vassallo indikat tnejn: Snap Chat li biha wiehed jista' jikkomunika bir-ritratti u omegle, li hija chat ma' xi hadd li ma tkunx tafu.

Is-Sinjura Vassallo appellat biex il-ġenituri jzommu ruħhom infurmati bil-prekawzjonijiet li għandhom jiehdu biex uliedhom ma jaqgħux fin-nassa ta' apps bħal dawn. L-Agenzija Appogg flimkien mal-Awtorità tal-Komunikazzjoni u l-Kummissarju tat-tfal għaddejja b'kampanja biex tqajjem aktar għarfien dwar l-użu ta' apps u siti fuq l-Internet.

[Share 0](#) [Tweet](#) [G+](#) [Email](#)

SETTEMBRU 21, 2017



Il-PM Joseph Muscat jiltaqa' mal-President Donald Trump

SETTEMBRU 21, 2017



Il-PM jgħid li baqa' xi jsir għall-komunità LGBTI waqt laqgħa għolja fi New York

SETTEMBRU 21, 2017



Iwarrbu l-karozzi u jiddevertu bl-isports fit-triq ewlenija tal-Fgura

SETTEMBRU 21, 2017

Appendix 13

AUDIT TRAIL

Date	Research Stage
2012	<p>Identification of the research problem</p> <p>After finishing my Master in Youth and Community Studies and a dissertation focused on Media Psychology, I was invited to be part of the EU Kids Online research network. This led me to realise that local research in the field of children and new media was lacking. After some discussions with my supervisor I identified the need to apply a child-centred perspective to understand the way children understand online risk and safety. I started exploring literature to help me refine research question. I also starting recognising my position with respect to the topic and identified my techno-positive stance.</p> <p>My research philosophy was predominantly constructivist and my prior research experiences involved qualitative research. However, through the EU Kids Online research I started exploring the merits of quantitative research.</p> <p>I was also invited to be part of a research team commissioned by the Malta Communications Authority (MCA) to conduct a qualitative study about children and the internet, which further contributed to looking further into quantitative research.</p>
2013	<p>The research proposal</p> <p>Based on the need to understand children's sense-making of risks, I researched possible theoretical frameworks in the field of Social Psychology to use for the study. The Uses and Gratifications framework was considered but discarded in favour of social representations theory, because of its applicability in understanding risk. This choice led me to consider combining qualitative and quantitative research components.</p> <p>Through reviewing literature, I also identify that children aged 9 to 12 are often considered with older children and that these children could be potentially more at risk. Thus, I decided to focus the research on this age group.</p> <p>I developed and submitted a proposal to the University of Malta outlining the research gap and the plan to conduct a mixed methods research based on social representations theory. Originally, I proposed exploratory focus groups followed by a survey and a third phase which would be based on the findings from the prior two phases which could possibly include participant observation or a netnography. I presented this proposal to the Faculty and I was accepted as an M. Phil student.</p> <p>Meanwhile I was also coordinating the preparation for the tool and the sampling strategy for the MCA survey and conducting interviews and focus groups for the EU Kids Online III research. This helped me further familiarise myself with the field of the study.</p>

2014 **Ethical Approval & Quantitative Data Collection**

During this year, I worked on the ethics form to be submitted to FREC and UREC. This involved making ethical decisions when having children as participants, such as handling consent, assent, anonymity and protection from harm. I also sought and obtained the necessary permissions to carry out the research in schools. Given that I was working on the MCA survey, I obtained permission to use the data for children aged 9 to 12 for the PhD and I decided to use the survey as the exploratory part of the research and shift the focus groups to the subsequent phase. I selected the data needed to address my research question from the main data set.

2015 **Literature Review & Quantitative Data Analysis**

To support the data analysis process, I followed the SPSS Introduction, Intermediate and Advanced Courses for Quantitative Data Analysis. I prepared the SPSS files and started cleaning the data. I decided to discard the questionnaires that were clearly incomplete, such as those where children stopped answering halfway through, but I decided to keep the ones that had occasional missing data and to include a 'Did Not Reply' field. This would enable the base number of respondents to remain constant when presenting results from the survey. I generated the frequency tables to review the findings and identify which further Chi-Square analyses to carry out.

I also started writing up a draft Literature Review. It became clearer that there were several factors to consider when analysing online risk and thus I first decided on a draft structure to identify what could be relevant for the review. I also conducted the systematic review to identify works directly relevant to the topic. The research topic seemed to be gaining popularity, but I realise that I was actively searching for research on this topic. However, research focusing specifically on preadolescents remained scant.

I also decided to present the theoretical framework as part of the first chapter, together with the background to the study.

2016 **Methodology, Transfer to PhD & Qualitative Data Collection**

After preparing the literature review, I started planning the Methodology chapter in view of submitting it for the upcoming transfer from M.Phil to PhD in October. I was undecided whether to prepare one methodology chapter that would address both the philosophical underpinnings of research and also include the details related to the methods used in the different phases of the research or else include the latter in the specific chapters where the findings are presented. After deciding upon Pragmatism as a paradigm to guide the mixed methods research, I decided address the methods in the chapter where the research phase is presented and focus the methodology chapter on the philosophical aspect.

I also planned and conducted the six focus groups for the qualitative research phase before leaving Malta for an Erasmus+ placement in Dublin and later on in Milan. Before conducting the focus groups, I analysed several methodological texts to

explore the researcher's role in focus groups with children. I planned a semi-structured focus group guide and I also decided to start off the focus groups by presenting children with a pre-focus group sheet with a set of questions to answer in order to help crystallise their thoughts and avoid groupthink. After each focus group, I would spend some time writing down my thoughts and reactions to the discussion and the dynamics of the group, which I found useful when transcribing the data. I decided to do the focus group transcriptions myself as this would be useful to familiarise myself with the data.

2017 **Qualitative Data Analysis**

By the beginning of the year, I had finalised the focus group transcriptions, anonymised the data and I was ready to start the analysis. Prior to this work I had conducted qualitative analysis manually, but because of the amount of data, I decided to use NVIVO to better manage the data. I decided to combine the use of NVIVO with further manual data analysis to be able to get the benefits of both. I also decided that I would be the sole coder for this work. I considered the option to have someone else code part of the data to establish inter-coder reliability, at length. However, I decided against it as I felt that another coder would not be as immersed in the topic as I was and this could result in a superficial analysis. I reviewed types of qualitative data analysis, but decided to choose Thematic Analysis by Braun and Clark.

I had the opportunity to present my work to a group of researchers at Trinity College with whom I discussed some ways to further clarify my work, the limitations and how children's development and social representations develop in the same contexts. I also had the opportunity to participate in the ECREA Summer School for PhD researchers and when presenting my PhD, I started considering the possibility that children's representation of the internet could contain their understanding of the risks. Following this summer school, I was invited to contribute a chapter in the book published as part of the proceedings and I presented a chapter based on the qualitative analysis of 'self-other themata'.

Throughout this year I continued to revise the NVIVO codebook and refine the codes in order to identify the themes which would then become the qualitative chapter.

2018 **The Third Phase**

Upon my return from the Erasmus+ placement I started considering various ideas for the third phase of the research. I had discarded the original plan to conduct a participant observation or a netnography as I realised that this did not quite fit with the research question and that it could be a separate research. I considered free association, an experiment, and other projective techniques. While conducting the focus groups, I had become aware that even within the same focus groups, there were children who had different skills, risk perceptions and risk experiences. I came across a research article based on Latent Class Analysis (LCA) and decided to use the survey results to conduct a LCA. I identified the list of variables to include and a

list of covariates and obtained help in carrying out and interpreting the LCA results. Four different classes of children were identified in the process and I then analysed the characteristics of each class and decided on names that would convey the characteristic of each class.

2019 **Latent Class Analysis & Corroboration Exercise**

Following the LCA and the identification of the four classes, I wanted to explore this further and thus as a second part to this phase, I designed a corroboration exercise to identify whether children would recognise these classes. Given that I changed the original plan and I was preparing a new tool for data collection with children, I had to submit another ethics form to FREC. I also decided to request an extension year in order to have sufficient time to complete the PhD. I planned to collect the data during children's Summer Schools. The first round of data collection was held in August, but since I did not reach the target number of participants, I decided to add a second round of data collection in September once the scholastic year started.

2020 **Concluding the Work**

After the separate chapters about the three phases of the work were concluded, I started reflecting on the social representations that I could identify to work them into the next chapter. Initially I focused only on representation of risk, but I found that this did not do justice to children's cognitions, and thus I included also their representations of the internet and some shared beliefs that also contain their understanding of risk.

Initially I prepared two separate chapters to conclude the work, but eventually I decided to merge them into one as I felt would be a better option to conclude the work.

I also started revising the previous chapters, particularly the literature review to use more recent literature where possible. This was not an easy feat as I still found the challenge that research focusing specifically on this age group was less common in comparison to research focusing on adolescents.

Appendix 14

LATENT CLASS ANALYSIS

Command issued to R:

```
fit <- poLCA(formula= form, lRd, nclass=k, nrep=20)
```

where lRd is the database containing the above variables, and k is the number of latent classes. Models for $k = 2, 3, 4$ and 5 classes were generated. The formula was defined as follows:

```
form <- cbind(impprivch, intsafech, meetnewsafech, willingmeetch, photosnoriskch,
publicnsch, notworriedinfoch, postnopermch, virusch, hackingch, contentch, contactch,
popusch, commentsch, picturesch, videosch, blockch, infoch, privsettech, delhistch, chngfiltch,
autolockch, setprivfrch, askremch, rempersch, diffpwrdsch, discookch)
~ deviceAccessCOV + timewkndchCOV + timewkchCOV + generalAcc2COV +
pictureAccCOV + inventedDOBCOV + gamesAcctCOV + genderchCOV + agechCOV +
seenlogochCOV
```

Logistic Regression Analysis

The package **poLCA** always takes Class 1 to be the reference class, and this is presented in

Table 48 shown below. This table shows the regression coefficients beta (which are log odds ratios) together with the p-value (that indicates significance if <0.05) for all the covariates for each of Classes 2 to 4 relative to Class 1. The odds ratio $\exp(\beta)$ are also given. It is perhaps useful to describe briefly what log odds signify in order to interpret better these figures.

For a given Class B, with class A as reference class, we assume that a participant can only be in one these two classes. If the probability of being in Class B is p , then the probability of being in class A is $1-p$. The odds ratio of being in Class B as opposed to Class A is defined to be the ratio $p/(1-p)$. For example, if the probability of being in Class B as

opposed to the reference Class A is 60%, then the odds ratio is $0.6/0.4 = 1.5$, whereas if the probability of being in Class B as opposed to Class A is 42%, then the corresponding odds ratio is $0.42/0.58=0.72$. Therefore, an odds ratio greater than 1 favours the comparison class, whereas an odds ratio less than 1 favours the reference class. Now, suppose the logistic regression of Class B versus the reference class A with respect to covariate X is being examined, that is, we ask whether an increase in X increases the probability of being in Class B (that is, makes the odds ratio larger) or it increases the probability of being in Class A (that is, makes the odds ratio smaller). To find this out, the regression coefficient beta corresponding to X in the regression of Class A against Class B is considered and $\exp(\beta)$ is computed. Then, the interpretation of $\exp(\beta)$ is this: if all other covariates are kept fixed, for every increase in X by one unit, the odds ratio of Class A against Class B is multiplied by $\exp(\beta)$.

Therefore, for each covariate and for each of the classes, a value of $\exp(\beta)$ greater than 1 means that the covariate predicts (assuming no change in the other covariates) that, as it increases, there is more chance that a respondent is in the class being investigated rather than in the reference class, whereas a value of $\exp(\beta)$ less than 1 predicts that the respondent is more likely to be in the reference class as the covariate increases.

For example, if $\exp(\beta)$ equals 1.17, this means that the odds of being in the class under investigation as opposed to being in Class A is multiplied by 1.17 therefore increases by 17% for every unit increase in the covariate, whereas if, for example, the value of $\exp(\beta)$ is 0.48, then the odds of being in the comparison class as opposed to Class A is multiplied by 0.48 therefore decreases by 12% for every unit increase of the covariate.

Table 48*Results of the Regression Analysis*

Fit for 4 latent classes					
Class 2 vs Class 1					
	Coefficient (beta)	exp(beta)	Std. error	t value	Pr(> t)
(Intercept)	-6.95383	0.0001	1.30063	5.347	0.000
deviceAccessCOV	0.38517	1.47	0.13256	2.906	0.004
timewkndchCOV	0.00923	1.01	0.01568	0.588	0.557
timewkchCOV	0.00107	1.001	0.02252	0.048	0.962
generalAcc2COV	0.68613	1.99	0.19155	3.582	0.000
pictureAccCOV	0.41684	1.517	0.17336	2.404	0.016
inventedDOBCOV	0.41915	1.520	0.33107	1.266	0.206
gamesAcctCOV	0.25239	1.287	0.13207	1.911	0.056
genderch	-0.00672	0.99	0.33331	-0.020	0.984
agech	0.00998	1.010	0.16166	0.062	0.951
seenlogoch	0.28198	1.326	0.35251	0.800	0.424
Class 3 vs Class 1					
	Coefficient (beta)	exp(beta)	Std. error	t value	Pr(> t)
(Intercept)	-1.63122	0.196	0.88853	-1.836	0.067
deviceAccessCOV	-0.05057	0.950	0.09199	-0.550	0.583
timewkndchCOV	0.01410	1.014	0.01426	0.989	0.323
timewkchCOV	0.00134	1.001	0.01245	0.107	0.914
generalAcc2COV	0.08284	1.086	0.13884	0.597	0.551
pictureAccCOV	0.19277	1.213	0.15163	1.271	0.204
inventedDOBCOV	0.48148	1.618	0.22305	2.159	0.031
gamesAcctCOV	-0.18324	0.833	0.10558	-1.736	0.083
genderch	0.25063	1.284	0.22433	1.117	0.264
agech	0.09672	0.908	0.12123	0.798	0.425
seenlogoch	-0.05730	0.944	0.23170	-0.247	0.805
Class 4 vs Class 1					
	Coefficient (beta)	exp(beta)	Std. error	t value	Pr(> t)
(Intercept)	2.81397	16.676	0.81061	3.471	0.001
deviceAccessCOV	-0.23853	0.788	0.09367	-2.546	0.011
timewkndchCOV	0.01628	1.016	0.01595	1.021	0.308
timewkchCOV	-0.00470	0.995	0.01236	-0.380	0.704
generalAcc2COV	-0.76176	0.467	0.13851	-5.500	0.000
pictureAccCOV	-0.30914	0.734	0.21224	-1.457	0.146
inventedDOBCOV	-0.55893	0.572	0.24541	-2.278	0.023
gamesAcctCOV	-0.52630	0.591	0.12752	-4.127	0.000
genderch	-0.03803	0.963	0.22654	-0.168	0.867
agech	0.11514	1.122	0.11607	0.992	0.321
seenlogoch	0.99945	2.717	0.22513	4.439	0.000

Number of observations: 1062; Number of estimated parameters: 145; Residual degrees of freedom: 917

By changing the order of the classes in **poLCA** one can make each of the four classes the reference class and obtain the corresponding regression coefficients and this information, although technically redundant, could help us understand better which classes are distinguished from each other and by which covariates. The results are presented in

Using Class 2 (Savvy Adventurers) as a reference class, there are three significant predictors in relation to Class 3. There is an increased likelihood of being in Class 2 rather than Class 3 if children have more devices through which to access the internet, together with more general and games accounts. Similarly, respondents were more likely to be in Class 2 and not Class 4 if together with these three predictors, they also had more picture accounts and had an invented date of birth.

When comparing Class 4 to Class 3 (Ambivalent Users) as a reference class, there is more likelihood for respondents to be in Class 3 if they had more general, picture and games accounts and if they had an invented date of birth. However, having seen the BeSmartOnLine! Logo meant that there is greater chance of being in Class 4 rather than Class 3.

Class 4 (Cautious Players) as a reference class had the most significant predictors relative to the other classes. The $\exp(\beta)$ coefficient for regression versus Class 1 were mainly greater than 1. Respondents had a greater probability of being in Class 1 relative to Class 4 if they had more devices to access the internet, if they had more general and games accounts and if they had invented a date of birth.

Table 49 where the columns correspond to each of the classes acting in turn as the reference class. The entries in the tables give the covariate and the corresponding odds ratio factor $\exp(\beta)$. To aid comprehension only the significant odds ratios are given. An odds ratio greater than 1 favours the comparison class over the reference class for an increase in the particular covariate (all others kept constant), while an odds ratio less than 1 favours the reference class over the comparison class.

Using Class 2 (Savvy Adventurers) as a reference class, there are three significant predictors in relation to Class 3. There is an increased likelihood of being in Class 2 rather than Class 3 if children have more devices through which to access the internet, together with more general and games accounts. Similarly, respondents were more likely to be in Class 2 and not Class 4 if together with these three predictors, they also had more picture accounts and had an invented date of birth.

When comparing Class 4 to Class 3 (Ambivalent Users) as a reference class, there is more likelihood for respondents to be in Class 3 if they had more general, picture and games accounts and if they had an invented date of birth. However, having seen the BeSmartOnLine! Logo meant that there is greater chance of being in Class 4 rather than Class 3.

Class 4 (Cautious Players) as a reference class had the most significant predictors relative to the other classes. The exp(beta) coefficient for regression versus Class 1 were mainly greater than 1. Respondents had a greater probability of being in Class 1 relative to Class 4 if they had more devices to access the internet, if they had more general and games accounts and if they had invented a date of birth.

Table 49

Significant Regression Coefficients

	Reference Class					Reference Class			
	Class 1	Class 2	Class 3	Class 4		Class 1	Class 2	Class 3	Class 4
Class 1 Audacious Explorers		Device access 0.680	Invented DoB 0.618	Device access 1.270	Class 2 Savvy Adventurers	Device access 1.470		Device access 1.547	Device access 1.866
		General Accounts 0.504		General Accounts 2.142		General Accounts 1.986		General Accounts 1.974	General Accounts 4.42
		Picture Accounts 0.625		Invented DoB 1.749		Picture Accounts 1.517		Games Accounts 1.547	Picture Accounts 2.067
				Games Accounts 1.692					Invented Dob 2.659
				Seen Logo 0.368					Games Accounts 2.179

Class 3 Ambivalent Users	Invented Dob 1.618	Device access 0.647	General Accounts 2.328	Class 4 Cautious Players	Device access 0.787	Device access 0.536	General Accounts 0.430
		General Accounts 0.547	Picture Accounts 1.652		General Accounts 0.467	General Accounts 0.235	Picture Accounts 0.605
		Games Accounts 0.647	Invented DoB 2.829		Invented DoB 0.572	Picture Accounts 0.484	Invented DoB 0.353
			Games Accounts 1.409		Games Accounts 0.591	Invented DoB 0.367	Games Accounts 0.710
			Seen Logo 0.347		Seen Logo 2.716	Games Accounts 0.459	Seen Logo 4.500

Appendix 15

LCA CORROBORATION EXERCISE

Write your age: _____

Read these descriptions carefully and then answer the questions below.

<p>A. Mark is curious about the internet, but thinks it is not always safe for a child his age. He is unsure about how to stay safe online. While using the internet he has seen some comments, pictures and videos that he thinks are not good.</p>	<p>B. Mark does many things online and he knows how to use the internet very well. When using the internet, he often had experiences that were not so nice. However, he knows what to do to stay safe online.</p>
<p>C. Mark is curious about the internet, but thinks it is not always safe for a child his age. He is unsure about how to stay safe online. While using the internet he has sometimes had some bad experiences online such as getting pop-ups.</p>	<p>D. Mark is very careful when he uses the internet because he is afraid. He thinks there are many things online that he needs to be careful of. He has hardly had any bad experiences when using the internet.</p>

1. Tick (✓) the letter of the description that **describes you best**:

- A.
 B.
 C.
 D.
 None of them

2. Now think of one of your friends.

Write their name: _____

3. Tick (✓) the letter of the description that **describes your friend best**:

- A.
 B.
 C.
 D.
 None of them

4. Write one sentence about **why** the description you chose describes your friend:

5. Read the following statements and **tick** (✓) the option which describes you:

a. I think the internet is safe	I agree very much	I agree	I do not agree	I totally disagree
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I have had unpleasant or bad experiences online	Very often	Often	Very few	Hardly any
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I know how to use safety settings	Very well	Well	Not so much	Not at all
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I use safety measures to be safe online	I use them often	I use them sometimes	I rarely use them	I do not use them
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Write your age: _____

Read these descriptions carefully and then answer the questions below.

<p>A. Maria is curious about the internet, but thinks it is not always safe for a child her age. She is unsure about how to stay safe online. While using the internet she has seen some comments, pictures and videos that she thinks are not good.</p>	<p>B. Maris does many things online and she knows how to use the internet very well. When using the internet, she often had experiences that were not so nice. However, she knows what to do to stay safe online.</p>
<p>C. Maria is curious about the internet, but thinks it is not always safe for a child her age. She is unsure about how to stay safe online. While using the internet she has sometimes had some bad experiences online such as getting pop-ups.</p>	<p>D. Maria is very careful when she uses the internet because she is afraid. She thinks there are many things online that she needs to be careful of. She has hardly had any bad experiences when using the internet.</p>

1. Tick (✓) the letter of the description that **describes you best**:

- A.
 B.
 C.
 D.
 None of them

2. Now think of one of your friends.

Write their name: _____

3. Tick (✓) the letter of the description that **describes your friend best**:

- A.
 B.
 C.
 D.
 None of them

4. Write one sentence about **why** the description you chose describes your friend:

5. Read the following statements and **tick** (✓) the option which describes you:

a. I think the internet is safe	I agree very much	I agree	I do not agree	I totally disagree
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I have had unpleasant or bad experiences online	Very often	Often	Very few	Hardly any
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I know how to use safety settings	Very well	Well	Not so much	Not at all
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I use safety measures to be safe online	I use them often	I use them sometimes	I rarely use them	I do not use them
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix 16

LCA INFORMATION LETTER FOR DIRECTORS AND HEADS OF SCHOOL

Dear _____,

I am a PhD candidate within the Faculty of Social Wellbeing at the University of Malta. I am currently carrying out my research entitled “Children and New Media. A Psychosocial Approach to Understanding how Preadolescents Make Sense of Online Risks.”, where I will be investigating children’s perceptions and experiences of online risks and safety. My supervisors are Prof. Mary Anne Lauri (University of Malta) and Prof. Giovanna Mascheroni (Università Cattolica del Sacro Cuore, Milano).

For the purpose of this research, I will be conducting a survey, focus groups and a group exercise with children aged 9-12 who have internet access at home and use the internet more than once a week. I would like to ask your permission to carry out the group exercise at _____ School. This will involve forwarding an information letter and consent form to those parents of children aged between 9 and 12 years. The children whose parents consent will be grouped and asked to answer a few questions using pen and paper. This group exercise will not take longer than 15 minutes. The children’s identity will not be disclosed and their name will not be used. Children will be asked to give their assent to participate in the research and they will be informed that they can withdraw from the study at any time. Your help would be greatly appreciated and valuable to help in understanding the experiences that children have online, and to enable us to support parents and children in their experiences online. If you grant your permission to carry out the study at _____ School, kindly sign below. If you have any queries you are free to contact me on the details below.

Whilst thanking you for your attention, I look forward to hearing from you. Yours sincerely,



Lorleen Farrugia

lorleen.farrugia@um.edu.mt

+356 99170481

I give my permission to Lorleen Farrugia to carry out the group exercise at _____ School

Name: _____

Signature: _____ Date: _____

Appendix 17

LCA INFORMATION LETTER AND CONSENT FORM FOR PARENTS

Dear Parent/Guardian,

I am a PhD candidate within the Faculty of Social Wellbeing at the University of Malta. I am currently carrying out my research entitled “Children and New Media. A Psychosocial Approach to Understanding how Preadolescents Make Sense of Online Risks.”, where I will be investigating children’s perceptions and experiences of online risks and safety. My supervisors are Prof. Mary Anne Lauri (University of Malta) and Prof. Giovanna Mascheroni (Università Cattolica del Sacro Cuore, Milano).

For the purpose of this research, I will be conducting a survey, focus groups and a group exercise with children aged 9-12 who have internet access at home and use the internet more than once a week. I would like to invite your child to participate in the group exercise. I am thus requesting your permission to allow your child to participate. I would like to ask your child to answer a few questions using pen and paper. This group exercise will not take longer than 15 minutes.

Your child’s participation in this study is voluntary. If you do accept to allow your child to participate you can rest assured that your child’s identity will not be disclosed and their name will not be used. Your child would also be free to withdraw at any time from the study should s/he decide to do so.

Your help would be greatly appreciated and valuable to help in understanding the experiences that children have online, and to enable us to support other parents and children in their experiences online. If you agree that your child participates in the study, kindly sign the consent form attached. If you have any queries you are free to contact me on the details below. Should you wish to receive the conclusions from this research, they will be available to you.

Whilst thanking you for your attention, I look forward to hearing from you. Yours sincerely,



Lorleen Farrugia

lorleen.farrugia@um.edu.mt

+356 99170481

Children and New Media. A Psychosocial Approach to Understanding how Preadolescents Make Sense of Online Risks.

Researcher: Ms. Lorleen Farrugia
 +356 99170481
lorleen.farrugia@um.edu.mt

Supervisor: Prof. Mary Anne Lauri
mary-anne.lauri@um.edu.mt

Signing this form is an agreement that:

- I am voluntarily consenting that my child is asked to participate in the research by Lorleen Farrugia, a Doctoral Student in the field of Psychology.
- I am aware that this study involves research carried out by a postgraduate student at the University of Malta who is reading for a Doctor of Philosophy.
- I have received, read and understood the Information Sheet with the details of this study.
- I have asked for all the information I required to understand what my child's participation will entail, and that I have had all these questions answered.
- I am aware that the purpose of this research is to understand children's perceptions and experiences of online risks.
- I am aware that the data collected for this study will be anonymised.
- I am in full knowledge that the information gathered will be used for the sole purpose of this study and only the researcher and her examiners will have access to the anonymised data.
- I am aware that my child's participation will involve taking part in a pen-and-paper group exercise that will take around 15 minutes.
- I am aware that the information gathered will be destroyed two years after the completion of the thesis.
- I am aware that my child is free to choose whether s/he wants to participate in the study and that s/he is free to withdraw from the study at any time and that s/he does need to give any justification for opting out.
- I am aware that there are no foreseeable risks related to taking part in the study and that there will be no deception in the data collection process. If my child is upset in any way during the data collection, the researcher will provide a list of available services that can provide me and my child with adequate support
- If I ask for the conclusions from the study, the researcher will make these available to me.

I _____ parent/guardian of _____ consent that my s/he participates in the study given that the researcher abides by the conditions outlined above.

Signature: _____

Date: _____

Researcher:



Date: _____

Appendix 18

LCA ASSENT FORMS

My name is Lorleen Farrugia and I am studying how children use the internet and what you think about it. I would like to ask you to take part in a group exercise on this subject that will take around 15 minutes.



I will not tell your teachers or your family what you answer. I will not use your real name when I write about this and I will not mention the name of your school or group so that no one knows who you are.



If at any point and for whatever reason you decide that you do not want to take part in the study anymore, you are free to do so.

You can say yes or no. It is up to you whether you take part. If you accept to answer these questions, I would be very grateful if you could write your name below.

I understand the information will remain private.
I understand that I can stop taking part at any time.

If you understand these, you now need to decide whether you would like to take part in the project.

I have decided that I would like to answer the questions Lorleen will ask me for her project about children and the internet. Please tick yes or no depending on what you decide.

YES **NO**

Please write your name