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Art museum learning and EI in the age of AI: Nurturing human connectivity

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Abstract: This paper explores the intricate relationship between art museum learning and the development of Emotional Intelligence (EI) in the context of the rapidly advancing Artificial Intelligence (AI) technology. As AI becomes increasingly prevalent in today's world, there is a growing need to emphasize the human aspects of education and emotional understanding. Stemming from my doctoral study (2014-2020) which explored holistic educational approaches with reference to the national art museum in Malta, this paper extends to the contribution of an art museum learning to the development of emotional intelligence (EI) in times of artificial intelligence (AI). As part of my research, I carried out three community projects with young adult participants (aged 21-30years). I exchanged ideas with the participants about the ways they engage with the national art museum collection in Malta. Throughout the three projects, regardless of their artistic ability and aesthetic background, all participants communicated experiences, emotions and ideas through art. This paper recommends ways in which art museum learning can enhance EI, fostering empathy, social skills, and self-awareness in individuals, thereby preparing them for the emotional challenges of the AI-driven future.

Keywords: Emotional intelligence, artificial intelligence, art museum learning, human connection

Introduction

This paper encourages the nurturing of Emotional Intelligence (EI) through art museum learning to foster human connection today in the face of advancing Artificial Intelligence (AI). Science fiction movies, such as the popular 'Star Wars' and 'The Matrix' often portrayed AI as intelligent machines taking over the world reducing humans to submissive beings who sustain the new AI order. In line with this, literature has offered various interpretations of AI. Somehow, they all embrace the basic idea of an intelligence designed to accomplish specific tasks without human involvement within the workplace and society in general. For instance, Russell and Norvig (2010) defined the term

AI as systems that copy human cognitive functions such as learning, speech and problem solving. Meanwhile, Kaplan and Haenlein (2019) presented a more elaborate description of AI's ability to autonomously learn from external data to accomplish particular outcomes through adaptation.

Although for decades the AI concept has been addressed in public discourses, artificial intelligence is very present. Indirectly or directly, people consistently interact with AI technology daily and thus it is no longer the field of futurologists. AI's transformational impact has led to significant academic interest in the consequences of the technology rather than AI's performance implications of AI, which used to be the key research domain for decades (Dwivedi et al., 2021). Meanwhile, media professor Sherry Turkle (2015) argues that in our current era of constant communication through technology, electronic devices pose a threat to our social interactions, potentially diminishing our human connection.

Throughout my doctoral research (Zammit, 2020), I explored holistic educational strategies prioritising one's wellbeing through personal and social connection, within the context of Malta's national art museum – MUŻA. The primary goal was to establish all-encompassing learning approaches based on three participatory action-research projects conducted between 2016 and 2017, involving distinct young adult communities. Further on, the projects' context is explained in detail. My PhD research's original intention of using the art museum for the public regardless of their art background stemmed from a personal observation of people's increasing need for connection in today's digital age. In view of my PhD research, this paper delves into how art museum learning contributes to human connection by enhancing aspects required for the development of emotional intelligence (EI) in the era of artificial intelligence (AI).

Paradoxically, as efforts are made to programme robots with algorithms aiming to replicate human emotions and senses (Kurzweil, 2012), it is common to witness individuals becoming more addicted to digital devices, often reaching a point of exhaustion. Although digital technology succeeded in simulating human interactions, the constant use of digital devices is often leading people to feel disconnected from genuine human connections. Recently, there is an increase of well-being workshops aiming to provide participants with meaningful face-to-face connections, away from virtual realities. These workshops gained popularity as people long for authentic and tangible experiences, seeking balance between the digital and the physical. Similarly, the results of my PhD research confirmed the participants' recognition of the importance of nurturing human relationships and emotional connections in an increasingly digital age. Well-being expert and educator Holly Niemela (2018) notes that global corporations, hospitals, and UK government organisations like Mindful Nation UK (Terry, 2016) are working

towards restoring a balance in people's digital lifestyles. Turkle (2015) emphasizes the need to counter the decline in social intimacy caused by digital technology by reverting to the most basic technology of face-to-face conversation. In line with this perspective, my study aimed to offer holistic education approaches via a national art museum, advocating for the museum as a space to rekindle face-to-face interactions by engaging the public with an art collection.

Art and Emotional Literacy

Emerging from the contributions of humanist psychologists like Maslow and Rogers, the last decade has witnessed a renewed interest in the concept of emotion within educational theory and practice. An illustration of this resurgence is the concept of 'emotional literacy', which acknowledges the significance of emotions for students' well-being – a dimension often overlooked in the 1980s and 1990s (Spendlove, 2007).

Emotional literacy, defined as an individual's capacity to recognize and understand one's own emotions and those of others, as well as to express and respond to emotional displays through socially appropriate behaviours (Sarin, 2004), is now recognized as a crucial skill alongside language and numeracy. Despite the prioritization of language and numeracy in schools, emotional literacy is frequently left to chance or one's own natural development, even as society increasingly emphasizes the value of cognitive learning. Research indicates that learners proficient in managing their emotions enjoy advantages both within the school/work environment and in their broader lives (Sarin, 2004).

There is a growing awareness regarding the promotion and safeguarding of children's emotional well-being (Nixon, 2016), as childhood trauma often leads to enduring difficulties and the onset of mental health issues in adulthood (Fonagy et al., 2011). Simultaneously, self-understanding and an empathetic connection with others enable the cultivation of optimism and meaning, particularly crucial in situations involving loss and trauma (Allen et al., 2003). Both emotional literacy and engagement in artistic activities involve the utilization of well-established neural circuits that connect various parts of the brain, encompassing perception, thinking, memory, and feeling. As a result of this reliance on usage, the more one encounters manageable emotional experiences that activate these circuits, the more robust one's development becomes (Nixon, 2016).

Malchiodi (2003) contends that the creation of art constitutes a non-verbal form of communication primarily involving the brain's right hemisphere in its role to convey emotional states and situations. Artistic experiences contribute to the development of the right brain by relying on emotional stimulation. Therefore,

art creation serves as a means to connect both hidden and familiar memories, assisting individuals to make meaning during challenging experiences. In an educational setting, art teachers often act as facilitators, fostering students' communication of emotional and creative abilities by creating engaging learning environments that involve them in the creative process.

Throughout the creative journey required for art practice and appreciation, emotional literacy plays a pivotal role. Skills such as the motivation to generate innovative ideas and the commitment to problem-solving, despite obstacles and frustrations, guide one's creative actions in art-making (Birwatkar, 2019). Overcoming limitations often fuels creativity. For example, artists who invest time and effort in researching, sketching, reflecting, and experimenting with various compositional arrangements produce more creative art compared to those who spend less time by simply replicating existing works. This is because artists engaged in a prolonged creative process often encounter a sequence of challenges, ultimately ending up creating an original artwork (Reiter-Palmon & Hunter, 2023).

Apart from engaging in a prolonged creative process, the right approach to problem-solving a technique can be perplexing. Furthermore, the underappreciation of a creative artwork can pose an emotional challenge to artists (Mulcahy,1986). Often, an artwork displaying genuine emotional intensity is undervalued by viewers who prefer aesthetically pleasing images or pieces depicting familiar subjects like a church or a vase with flowers. To what extent is an individual willing to endure this underestimation and insecurity unless they can recognize and address the emotional struggles that arise throughout their artistic journey and life?

Psychologists refer to the awareness of enduring insecurity as the tolerance of ambiguity, a trait closely associated with creativity (Helson & Pals, 2000). As an individual develops emotional literacy, they can anticipate emotional anxieties and effectively cope with emerging moods. In today's fast-paced life, where individuals often multitask and face tight deadlines, emotional literacy skills are essential for managing anxiety and providing the time needed for effective problem-solving. Additionally, emotional literacy abilities serve to channel emotions into stimuli for creative activities (Nixon, 2016).

Artificial Intelligence and Art Education

AI changed the ways in which teaching and learning were understood and practised and to date continue to offer new pedagogical goals and practices (McArthur et al., 2005). In this paper, the term 'Artificial Intelligence' (AI) refers to the use of AI technologies and methodologies within the field of art education, aiming at enhancing the efficiency and experiential aspects of the teaching and learning process. Besides computer scientists and digital artists,

AI challenges art educators to reconceptualize their notions of thinking and creativity (Leonard, 2021).

Art educators need to ask new questions, drawing attention to the increasingly blurred boundaries between authorship and creativity. For instance, when assessing students' creative process art educators need to rethink art education pedagogical approaches to challenge students' digital educational experiences in visual arts. When it comes to explore AI in the realm of art education, there is very limited published research (Leonard, 2021). Meanwhile, other areas with a more developed history of art making and AI research such as Miller's (2019) insights concerning computational creativity can influence pedagogical concepts and bring about new understandings to the field of art education research.

Artificial Intelligence Technology and Emotions

A brief history of computers in relation to emotions shows that although the term 'affective computing' was coined in 1995 by Rosalind W. Picard (Picard, 1995), to some extent, the concept dates back earlier. The first evidence for automatic speech emotion recognition was recorded in 1978 (Williamson, 1978). With regards to efforts in portraying emotions through facial expressions, the European SEMAINE project, concluded in 2010, marked a significant milestone by delivering the initial real-time system capable of discerning user emotions and producing tailored agent responses within a 2D audiovisual input-output sequence for emotionally intelligent dialogues. Similar initiatives include the University of Southern California's SimSensei, initiated in 2011, and ARIA-VALUSPA (Artificial Retrieval of Information Assistants – Virtual Agents with Linguistic Understanding, Social Skills, and Personalized Aspects), which started in 2015 (Schuller & Schuller, 2018).

Over the past few decades, AI technology has undergone significant maturation, boasting an impressive range of effective computational tools. This progress has been facilitated by the growing power of cost-effective computers, the widespread availability of expansive databases, and the increase of the World Wide Web (Nillson, 2009). In today's world, the magic of AI is nearly everywhere, just like Allen Newell foresaw computers the technology of enchantment (Newell, 1976). Today's AI programs show the capability to approximate numerous human cognitive functions, with the ability to fully imitate some and exceed human performance in others. A few examples of how AI is already inhabiting daily life (Nillson, 2009, p. 33) are listed below:

- thermostats for heat and air-conditioning systems that anticipate temperature changes and the needs of occupants, communicate with other home devices, and take appropriate actions in advance;

- microwave ovens that read barcodes on packages to determine how long to cook an item;
- smart running shoes with a computer chip that senses the runner's size and stride length and directs on-going changes in the heal cushioning via a miniature screw and cable system;
- washing machines that automatically adjust to different conditions to wash clothes better;
- refrigerators that automatically inventory their contents and inform owners of needed items;
- cameras with computer vision systems to identify faces and to control focusing, exposure, and framing;
- hearing aids that adapt to ambient sound levels and block out 'cocktail party' chatter;
- robotic pet 'animals' and toys that interact with people;
- floor-washing and vacuum-cleaning robots;
- caretaker robots for the elderly or infirm.

With AI now set to address a multitude of real-world challenges, graduates specializing in AI studies increasingly opt for roles in companies and start-ups rather than pursuing academic research in AI. Famous companies such as Google and Microsoft have recruited many of these graduates. Similar to the evolution of other engineering branches, AI has gradually diversified into various subspecialties. For instance, the International Joint Conference on Artificial Intelligence in July 2009 featured papers in thematic areas like Agent-based and Multi-agent Systems, Constraint, Satisfiability, and Search, Knowledge Representation, Reasoning, and Logic, Machine Learning, Multidisciplinary Topics and Applications, Natural-Language Processing, Planning and Scheduling, Robotics and Vision, Uncertainty in AI, and Web and Knowledge-based Information Systems (Nilsson, 2009).

Meanwhile, although AI has made significant strides in mimicking certain aspects of human emotional intelligence, it still falls short in terms of depth, genuine understanding, and the complex interplay of emotions that characterize human interactions. Human emotional intelligence remains unparalleled in its richness, adaptability, and the ability to navigate the intricacies of the human experience. Although Artificial Emotional Intelligence (AEI) has been portrayed often in science fiction along the years, creativity, social and emotional intelligences are still largely lacking in AI (Schuller & Schuller, 2018).

Art and Human Connection

Syrotkina et al. (2022) argue that global digitalization is increasingly threatening mental health in today's world. This is due to our constant isolation in the digital space which is slowly decreasing what used to be considered

'normal'. Although digital technology was meant for more human connection, digital experiences are gradually disconnecting people as they become addicted to gadget screens which constantly influence their consumption: to eat more, buy more, post more messages and to collect more likes, leading to the development of feeling empty (Perlmutter et al., 2020). This means that although digital revolution has presented great opportunities, it also brought about emotional illiteracy. Currently, the response for this is holistic education and art is often considered effective in contributing to this approach (Syrotkina et al., 2022).

There is an undeniable connection between art and society. Art not solely serves to inspire and elevate individual cognitive and spiritual growth, but it also serves to strengthen moral and ethical principles. Thus, it stimulates and balances emotional relationships, shaping a holistic worldview, due to encouraging one's sensitive response to the world, by making meaning of and accepting it. These abilities are crucial in developing creative self-realization and fostering personality harmonization (Perepelytsia, 2015). The impact of art on an individual's inner world and intellect is often underestimated but in a world embracing a consumer-materialistic approach to life, art instils hope for attaining the ideal of a well-balanced personality. According to the artist Duchamp (1956), art is an exit into spheres not controlled by time and space. In fact, artworks are described as things to contemplate about (Tishman & Palmer, 2006), evoking connections which eventually foster emotional intelligence individual (Sirotnyuk, 2006). This provision of experience to connect the national art collection with one's life, irrespective of art knowledge/experience, is what my doctoral community projects aimed at primarily.

Art Museum Learning – Research Context

My study (Zammit, 2020) explored how art museums, as cultural and educational institutions, play a pivotal role in cultivating emotional intelligence, nurturing indispensable human qualities amidst AI's rapid advancement.

The study's projects specifically aimed to address the needs of three communities of young adult participants (aged 21-30 years). This age group is often considered as challenging to reach out to. They are often excluded from local cultural projects and events which focus mainly on families, school children and teenagers. The first project was carried out with a community of residents at a Drug Rehabilitation Centre. The second project was held with a community of University students following a Bachelors in Art Education course and thus already had an artistic background. The third project was carried out with a community of inmates at the Correctional Facility.

The three communities came from different walks of life, differed in artistic abilities and attitudes towards life. They were either unfamiliar with art museums or considered them irrelevant. They rarely responded to a Facebook event organized at the national art museum, even if it was free of charge, believing that art museums are only for those interested in art's technical, historical and aesthetic information. The first interviews among all the potential participants (before the projects' beginning) showed that at the time of the projects, they described life as chaotic/disturbing. Thus, I could observe one common need—all participants needed time to slow down, reflect, express emotions, so they eventually could connect to themselves, others and life.

Research Methods and Data Collection

Bearing in mind that "to ensure a strong research design, researchers must choose a research paradigm that is congruent with their beliefs about the nature of reality" (Mills et al., 2006, p. 1) my study aimed for a research design that fitted with my dual position as a researcher and educator.

My study involved a participatory approach, including three projects calling for multiple research methods which eventually led to sources of multi-level data collection. Stemming from my study's commitment to the development of community outreach strategies grounded in participatory processes, the data collection depended on the collaboration, action and reflection exchanged between the participants and myself as the researcher. Hence, the development of educational strategies complements the development of the study, gathered from multiple sources of data provided by a combination of research tools. These tools included: participant observations; interviews with participants before and after the projects; visual elicitation and documentation; art journals kept by the participants including mind-mapping and self-evaluations, and finally my own research journal including field notes.

In view of Participatory Action Research (PAR) pioneered by sociologist Orlando Fals-Borda (Díaz-Arévalo, 2022), the participation methodology in my projects emphasized collaboration, empowerment and social transformation. It called for participation 'with' rather than 'by' people. Thus, PAR was an appropriate methodology for my study, due to its emphasis on "a dialogical, self-reflective and participatory approach to knowledge" (Gutierrez, 2016, p. 59) aligning with my projects' holistic learning goals. Furthermore, this approach has been frequently applied in community-based projects, including those related to the arts and non-formal adult education (Reid et al., 2006).

Predominantly my study aimed at collaborating with young adults coming from different social backgrounds to understand their ways of making meaning out of life with reference to the national art collection. My study was not intended to understand and develop solutions to injustices that the

projects' participants were facing. The underlying concept of my study is that ordinary people can make meaning and transform their own lives through inquiry, education, and action. This aligns Hall's (1985, p. 6) concept of participatory research with its emphasis on "people as experts" who actively engage in research processes and improve their life. Such concept is open to the possibility of gradual change in the personal and/or social dimensions of the participants' lives. The projects did not aim at providing art therapy, being "liberating processes in themselves" (Gutierrez, 2016, p. 61) as priority was given to the community's knowledge agenda, interests and needs. Nevertheless, the projects could still have led to transformations. This was another reason why PAR methodology was appropriate to my study, as the study is not an end in itself but a means through which participants could be active to make meaning of life and possibly transform their lives. This recalls Michelle Fine's PAR concept where she explained that "the task was not merely to educate us to 'what is', but to provoke critical analysis of 'what has been' and release our imagination for 'what could be'" (Fine & Torre, 2006, p. 259)

The use of PAR methods facilitated participation and increased the participants' sense of control throughout the research process, "strengthening the awareness of their own abilities" (Hall, 1985, p. 8). The forms of questioning used in the interviews, including the use of prompts, direct questioning and scaffolding assisted in eliciting the participants' meanings. The participants' drawings and the annotations in their art journals during the projects served to further understand the meanings which they constantly constructed and reflected on. The visual methods in the forms of photography, video, artefacts and art journals served both for elicitation and documentation of the participants' learning process.

In view of Hall's (1985) description of the researcher's role as that of a learner who "along with the community, learns and develops through the educative process" (Hall, 1985, p. 10), my own learning through taking field-notes from observing and interacting with participants provided another source of data. The participants' "collective creation of new knowledge about themselves and their own reality" (Hall, 1985, p. 11) taught me about their gradual learning process in engaging with the national art collection, a process which adapted to their interests and personal and social needs. The Constructivist Grounded Theory (CGT) method provided the framework to guide the complex analysis process.

Combining Participant Action Research and Grounded Theory

Originally developed by Glaser and Strauss (1967) and predominantly used in qualitative research, Grounded Theory (GT) constructs theory from empirical data (Glaser & Strauss, 1967; Strauss & Corbin, 1990). Given that the fundamental premise of my study emphasised the reciprocal relationship between theory and practice, GT emerged as the primary analytical approach.

Grounded theory methods offer systematic yet adaptable guidelines for gathering and analysing qualitative data, facilitating the construction of theories rooted in the data itself (Charmaz, 2006, p. 2). It is recognized as a suitable methodology for emerging research domains due to its capacity to develop concepts grounded in empirical evidence (Allan, 2007). Consequently, it aligns well with the research methods employed in my study, which similarly relied on empirical data through parallel data collection, analysis, and interpretation. Furthermore, GT is ingrained in phenomenology, emphasizing how individuals interpret their lived experiences (Charmaz, 2006). This epistemological framework not only formed the foundation of my study but also underpinned the philosophy guiding the three research projects.

Since the mid-1990s, Kathy Charmaz, the leading protagonist of Constructivist Grounded Theory (CGT), has promoted the integration of a constructivist learning approach into grounded theory. Therefore, the data does not merely mirror reality; instead, the perceived reality emerges from an interactive process and its temporal, cultural, and structural contexts (Charmaz, 2000, p. 524). This methodology was congruent with the approach adopted in my study's projects, which sought to elicit participants' narratives and incorporate their personal, social, and cultural contexts within their respective communities. According to Charmaz (2006), GT traditionally supports an objectivist perspective, positing the existence of an external reality that a detached researcher can uncover and report. In contrast, my study embraced a collaborative approach, viewing participants as co-researchers who actively contributed to the projects by sharing their own discoveries and detailing their learning strategies within the national art museum. Given the contemporary understanding that museum visitors construct their own meaning, employing a constructivist conceptual framework was considered appropriate. Epistemologically, constructivism emphasises the subjective interplay between the researcher and the participant, highlighting their collaborative construction of meaning (Mills et al., 2006).

Art Museum Learning and Emotional Intelligence

Influenced by Dewey's (1938) experiential learning philosophy rooted in constructivist museum learning theories (Hein, 1998; Hooper-Greenhill, 2006), socio-cultural learning (Vygotsky, 1978; Falk & Dierking, 2000), and lifelong learning principles (Biesta, 2006), my research projects sought to examine the significance of the national art museum in the participants' lifelong learning, encompassing learning throughout life. In this context, ‘relevance’ denotes the museum being valued not solely as a space for appreciating art but also for encouraging connection though one’s emotional development. In view of my study, this growth would occurr as participants shared interests, connected with themselves and others, and generated understandings and ideas about life through art appreciation and creating.

The common leading task of the projects involved participants in selecting a theme and developing it with reference to their chosen artworks from the museum collection. While addressing this central task, participants engaged in a communication process not only with others but also with themselves. This process included reflection, analysis and evaluation of their interpretations. The participants kept art journals including self-evaluations and comments regarding their responses and discoveries while dealing with theme development in relation to the museum collection. Documenting their individual knowledge construction enabled participants to communicate with each other effectively. As they flipped through their art journals and mind-maps, they presented their work-in-progress, explaining reasons for selecting specific artworks and explaining their connections to the theme they were dealing with. Through this communication, they initiated discussions and constructive criticism within the group. While sharing their work and offering alternative perspectives, participants became conscious of their learning process, recognizing "...the understanding gained as superior to their previous understandings" (Ash, 2004, p. 862). Ultimately, the new and/or alternative connections to the collection sparked by social interaction with their peers led participants to engage in an internalized dialogue, prompting further reflection on various interpretations.

Museums, deemed "an ideal environment for personal development and fulfilment" (Kamps & Weide, 2011, p. 52), can be considered relevant to everyone's holistic life experience (life-wide) and ultimately transformative for life (lifelong). Nevertheless, Aruna d'Souza posits that "what institutions hang on their walls or put on their pedestals is a clear articulation of who they imagine their audience to be" (quoted in Cohen, 2018, online). This aligns with the central question of my projects regarding strategies to make an art collection relevant to young adult communities. Throughout the projects, I delved into how participants constructed their own 'relevance' in response to the national art museum collection, based on their emotional response resulting from their own ways of seeing, as they ascribed meaning to life through art.

The workshops in the projects were designed to offer both theoretical and practical learning encounters, featuring visual art problem-solving tasks that encouraged direct and virtual engagement with the national art collection. The projects' main aim was to address the general personal and social needs of young adults, encompassing their desire for active listening, a sense of belonging through connections with others, and the need to derive meaning from life. By choosing a social theme, which resonated with their own life experience, the participants were encouraged to engage deeply with artworks, exploring several emotions and perspectives they conveyed. For instance, a participant recalled that:

"looking at some artworks made me sad. I recognised one of my friends in the photo of the immigrants… he died then. So I drew the boat sinking… I didn't lose hope because I believe there is something beyond that put me in this situation. I am alive for a reason."

As they engaged in the problem-solving task of theme development, participants analysed and appreciated their own and others' procedures of artistic expression, leading their practice of empathy, understanding, and self-awareness. They contemplated their own learning journey and engaged in discussions with one another to question and construct meanings related to both art and life. This introspective creative process enhanced emotional intelligence, enabling them to identify, understand, and manage their own emotions while empathizing with the feelings of others. The development of such transferable skills (e.g. creative thinking, collaborative skills, problem-solving) were not only essential for the learning experience during the projects but also cultivated awareness of their emotional responses to life.

In the face of AI's growing presence, which often lacks the nuanced emotional understanding inherent in human interactions, the projects served to nurture EI within a safe and supportive setting, by guiding young people's sense of relevance while responding emotionally to art. Moreover, by engaging with art that explores social themes and human experiences such as: *Identity, Human Relationships, War and Violence, Religion and Spirituality, Environmental Issues* the participants could develop a greater understanding of the emotions and struggles faced by others, promoting a sense of shared humanity and compassion. The participants felt a sense of validity and empathised with others when sharing knowledge, artistic techniques and life experiences. One confessed "…whenever I showed my work in progress and the others asked me for advice, it made me feel worthy... it felt like others manage to see the good in me".

Young Adults and the Digital Realm

My research projects did not aim at providing entertainment or qualifications. Although, I am aware that learning is often facilitated through enjoyment, given the excess of easily accessible venues offering mass entertainment and the growing prevalence of sensational digital devices, most young adults today are seeking a sense of the meaning of life and identity rather than mere entertainment. My projects' participants expressed a desire for the workshops to last longer, emphasizing that they found them meaningful to their lives. In the final interviews, they mentioned that the projects provided them with well-being opportunities which they needed, including social interaction, self-expression, time for contemplation while looking at art, and moments for reflection on their lives and identities.

Despite the common assumption that digital technology is the main contemporary attraction for young adults, the so-called digital natives (Prensky, 2001), participants in the first and third projects were unable to access the internet or digital devices due to their specific contexts. Nevertheless, they still actively engaged with the national art museum collection. This raises the question of whether an art museum should consider providing an alternative space for young adults' digital detox. Media professor Sherry Turkle (2015), who has studied the social and psychological effects of digital technology, argues that due to electronic devices depriving people of social intimacy, there is a need to rediscover and promote face-to-face dialogue. Similarly, throughout all three projects, participants often discussed the irony of being overwhelmed by the demands of relentless digital connectivity, resulting in the deprivation of physical connection to each other and the tangible world. Two quotes extracted from the focus group discussion during the second project exemplify this perspective, as follows:

"I think we miss the simple joys in life as we worry about staying connected through social media all the time…"

"…the joy of life is not only found on the internet."

Although the task involved the university student participants of the second project in the creation of virtual exhibitions, which required creative work through technology devices, most of them still admitted that they preferred drawing and developing their ideas tangibly through the manipulation of textures and materials. In fact, their mind-maps were mostly drawn on their sketch books. Furthermore, concurrently with the project task, their coursework engaged them in creating tangible exhibitions. On several occasions, participants admitted that the actual manipulation of tools like pens, scissors, glue and materials provided them with a sense of slowing down and nurtured their creativity, something they desperately needed throughout their stressful final year at university. Then again, there is still the issue of attracting young adults to attend and participate in meaningful experiences at the museum. This was discussed in a focus group with the participants of the second project. Mainly they vouched for digital technology and the virtual world as the contemporary attractions for young adults. Their suggestions included: online access to the museum collection; virtual museum tours; social media tools such as Instagram, Facebook, and Snapchat and online games featuring the museum collection.

Meanwhile, in her audience research study, Emma Shrapnel (2012) mentioned ways in which international museums had successfully attracted young adults, and which did not involve the digital realm. For instance, by focusing on Graffiti Street art – an art form popular with young adults, the Museum of Contemporary Art in Los Angeles with its programme entitled 'Art in the

Streets', succeeded in attracting a large number of visitors to create new graffiti art outside the museum. Through its inside/out initiative, the Detroit Institute of Art in Michigan displayed high-quality, life-size reproductions of famous artworks around the city, thus encouraging new visitors especially young adults to visit the museum and see the original paintings. Instead of creating programmes for young people, the Museum of London have had programmes created by young people. This ensured that museum projects, displays and events did attract young adults (Shrapnel, 2012).

Conclusion

In conclusion, this paper emphasised the important role of art museum learning and ways in which it can serve as a catalyst for nurturing emotional intelligence, equipping individuals with the essential skills and qualities needed to navigate an increasingly AI technology-driven world. Regardless of the overwhelming digital connectivity today, there is a growing sense of disconnection. Considering the findings of my projects, an art museum should not primarily position itself as a venue for leisure activities offering the latest digital and AI interactives, as there are already ample entertainment options available both physically and the virtually.

With the rising prevalence of mental disorders among young adults, museums should prioritize providing opportunities for human connection through well-being and self-exploration. Their priority should be in offering relevant educational outreach programmes that encourage the public's engagement to communicate through art, enabling them to derive meaning from life. This approach positions art museums as spaces facilitating the nurturing of emotional intelligence through art, transcending individuals' backgrounds in art education and culture. In view of my study, the paper indicates that by fostering empathy, self-awareness, and compassion, art museums can empower visitors to embrace their humanity fully, even in the face of advancing AI, by reinforcing the significance of EI in our rapidly changing society.

AI technology that virtually curates art collections focusing on the viewers' emotions while they observe an art collection is already present (Kim & Lee, 2022). In a way, the participants of the second project in my study also created virtual exhibitions to engage other young adults with the national art collection. Meanwhile, I keep questioning: Which young adults? The ones who already have an artistic background? The ones who are intrinsically motivated to learn? How can virtual Art collections curated by AI attract those young adults who lack a cultural capital?

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