



MALTA EU2017

THE STATE OF DIGITAL EDUCATION

Engaging with Connected,
Blended and Open Learning



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MINISTRY FOR EDUCATION AND EMPLOYMENT

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INTRODUCTION

The Digital Education Conference engaged with six key interconnected themes underpinning 21st century education frameworks:

- Openness and Equity in Digital Education
- Systems for Accreditation & Quality Assurance of Online learning
- Best Practices in Policy Design for Digital Education
- Innovation and Digital Pedagogies
- Teachers, learners and digital education
- Future Trends in Digital Education

During the event, the Maltese EU Presidency hosted global policy-makers, thought-leaders, education practitioners and activists from organisations including MIT Media Lab, Creative Commons, UNESCO, Open Society Foundations, Joint Research Centre of the European Commission, Learning Machine and the Commonwealth of Learning. Participants had the opportunity not just to engage with peers, but also to chart new, pragmatic directions for digital education in Europe.

INTRODUCTION



OPENING

 **DR. ALEX GRECH**

Conference Chair, Commonwealth Centre
for Connected Learning



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Dr. Grech welcomed the Conference delegates and urged them to not just engage with peers, but also to chart new, pragmatic directions for digital education in Europe.

Grech:

“This Conference, with its six interconnecting themes, has been in gestation for almost two years. It is not an accident that digital education is being positioned at the start of the Malta Presidency of the European Council.”



OPENING



HON. EVARIST BARTOLO*Minister for Education and Employment*[Watch the presentation](#)

Minister Bartolo said that schools are not meant to be 'learning factories', but to help realise the potential of every learner to the fullest extent possible. This involves not only preparing learners to face challenges which cannot yet be foreseen, but also assuming that addressing these challenges will require significant fortitude. These challenges are not only linked to employment skills but also to civic values, especially in the turbulent times since the Paris and Brussels attacks. He also stressed the risks of digital, whereby technology is just as likely to destroy jobs as to create new jobs. Education systems must therefore not only cater to the highly skilled and educated, but put a strong focus on lifelong learning, in particular for re-skilling. Education needs to become a tool to foster social inclusion rather than for creating intellectual elites that widens gaps.

Bartolo:

"In Maltese we have a saying that we have Kids that are not good for schools. In fact we have schools that are not good for kids. Digital makes it possible to move away from standardisation towards personalisation. Unless we make education relevant – it's easy to become meaningless – we must make sure schools develop our kids' potential."

"Jacques Dolores said that the most important things in education are learning to know, learning to do, learning to be and learning to live together". I subscribe to that."

**JOSEPH CARUANA***Permanent Secretary, Ministry for Education and Employment*[Watch the presentation](#)[Download the Slide Deck](#)

Mr. Caruana described Malta's integrative approach to technology in education. The country has set up a Technology in Education Task Force constituted of the Ministry's CIOs and Government's Information Technology agency, but also people working with the curriculum, e-learning and overall education strategy. Issues addressed range from the content to be deployed on tablets for young students in the class to exploring how students learn in real time by taking advantage of the greater variety, volume and velocity of data. The Task Force is also looking at how teacher productivity may be increased, freeing up valuable time from tasks such as grading and testing to planning and delivering quality teaching. Used diligently, technology can be a powerful tool for educators to reimagine learning experiences.



ANTOANETA ANGELOVA-KRASTEVA

Director DG Education and Culture



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Ms. Krasteva highlighted the challenge of providing opportunities for the 14 million youth in Europe who are neither in employment or education. To improve its relevance, educational systems need to address skills gaps and increase quality by updating learning content for a digital world.

This involves the promotion of competence-based teaching, whereby students are given adaptable competences and transversal skills rather than specific sets of knowledge. The European Commission is supporting this through a revision of the European Framework for Key Competences.

Angelova-Krasteva:

“Do we have the rights skills today to face challenges of tomorrow? If we’re honest, we probably don’t.”

The ‘digital’ key competence requires updating beyond mere competence in using technology. It requires the competence to critically evaluate and weigh the deluge of information coming in through the media and internet, and the ability to use information to create, to innovate and have fun.

Angelova Krasteva:

“Digital tools will allow teaching at different scale: with more flexibility timing, at greater impact to more people”

Preparing students for a digital future also means merging formal, non-formal and informal education together to teach new skills, such as the use of code-weeks and hackathons to teach coding. Such initiatives are particularly important to address the gender gap in STEM education - where within the EU only Finland sees more girls than boys following a STEM pathway.

Higher Education Institutions need to consider their role in the changing educational landscape. Should they continue to focus on campus-based education, continuous education for adults, online learning or a combination of the three? What will the role of teachers be under these models? The European Commission will be presenting an updated version of the Modernisation Agenda for Higher Education in May, with a focus on student-centred learning and digitisation, in response to these challenges.

THE STATE OF OPEN EDUCATION

▶ THE STATE OF OPEN EDUCATION

▶ DR. CABLE GREEN
Director of Open Education at Creative Commons

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Dr. Green explained that Open Educational Resources (OER) are teaching, learning, and research materials in any medium that reside in the public domain or have been released under an open license that permits their free use and re-purposing by others. Creative Commons provides publishers with the opportunity to allow their work to be copied and reused with any one or more restrictions, or certain combinations of restrictions. "Open" can be positioned as being "Free" plus permissions.

At the moment, much publicly-funded research is subsequently published in journals which require academics and the public at large to pay to access that research. Open licences allow for the same public who pays for research to have access to it. Around the world, there are also examples of educational organisations making their content available online openly and free online to improve educational outcomes, with examples including skillscommons.org and Openstax's cnx.org.

In classrooms, closed licences only provide students with the right to consume knowledge, but not the right to work with it. Open licences allow for students to learn by doing through reusing, revising, remixing and redistributing materials.

Green:
"Creative Commons puts the Open in OER"



"THE 5 RS:"

- 1** **RETAIN** the right to make, own, and control copies of the content (e.g., download, duplicate, store, and manage).
- 2** **REUSE** the right to use the content in a wide range of ways (e.g., in a class, in a study group, on a website, in a video).
- 3** **REVISE** the right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language).
- 4** **REMIX** the right to combine the original or revised content with other material to create something new (e.g., incorporate the content into a mashup).
- 5** **REDISTRIBUTE** the right to share copies of the original content, your revisions, or your remixes with others (e.g., give a copy of the content to a friend).

▶ WILL OPEN EDUCATION TAKE ROOT IN THE HE SECTOR?

▶ PROFESSOR JEFF HAYWOOD
University of Edinburgh

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Professor Dr. Haywood presented an institutional perspective, whereby he explained that 'open' education has many facets. 'Open' describes courses which are open to anyone, without the pre-requisite of mandatory qualifications. It is also synonymous with no fees for study, with learners rather than enrolled students and fully-online courses. It also describes courses which are very lightly tutored & supported, are assessed in various forms (both formative & summative), have a low number of study hours per week, consist of modules rather than degrees and may offer 'statements of accomplishment' rather than credits.

These types of learning opportunities present a different and new business model to universities and higher education institutions. MOOCs in particular offer the possibility for global enrolment with a greater audience across the world. This is a significant phenomenon as students do not need to travel all over the world to reach and have access to courses or institutions.

Haywood: "Is a campus serious about online learning? You can tell by checking if it's there, on their main web page."

Taken globally, the range of subject areas offered through MOOCs is very wide, with career relevant subjects the most common. From a university perspective, this offers a chance to complement traditional learning and increase the 'student-centredness' of learning offers. By offering MOOCs alongside its main offering, a teaching institution has a chance to introduce on-demand, self-paced and location-flexible learning rather than limiting itself to teaching specific subjects at specific times in line with the academic year. By unbundling courses into micro-qualifications, it can improve the relevance of specific learning modules to life or to employment.

Taking full advantage of the opportunities offered by Open Education and MOOCs requires dialogue between governments and institutions, to understand where MOOCs are the most appropriate tool to deliver education and where campus-based education, or a mixture of the two is most appropriate. This in the long-term will also lead to cost-savings and an increasingly globalised education.

Haywood: "Edinburgh University was prepared to take chances, experiment and be innovative."

PHILIPP SCHMIDT
MIT Media Lab

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Mr. Schmitt concentrated on how openness and technology can make a difference to people who wish to learn in today's societies.

Public libraries as well as online MOOC repositories provide practically unlimited amounts of free educational materials to the public at large; yet this does not necessarily increase the educational opportunities of people who do not have a culture of studying. To this end, the Peer 2 Peer University (P2PU) organises for students to be coached by librarians using MOOCs in public libraries.

Within institutions, multiple studies show that lectures are particularly inefficient ways of imparting knowledge, with one example showing brain activity of students during lectures being close to that when sleeping. Collaborative learning activities and interactive/participative methodologies have much higher student engagement and lead to more learning.

Moving lectures to digital allows them to become more interactive and participative by allowing for commenting, sharing and remixing.

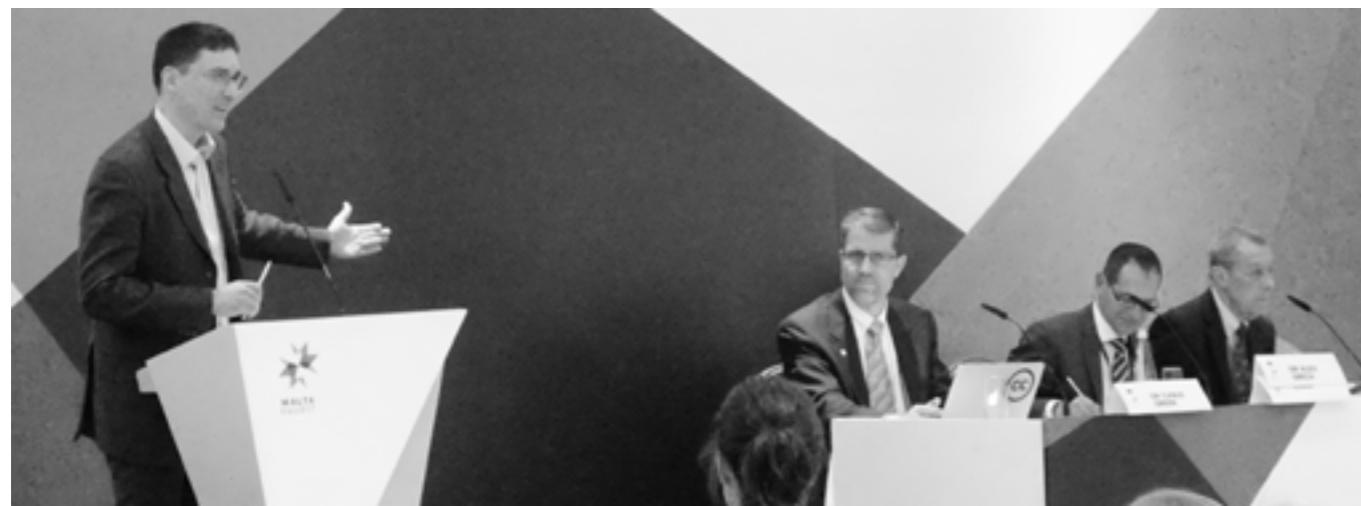
Schmidt: "If it can be graded by a computer today, it can be done by a computer tomorrow"

It also allows them to become effective study tools by allowing for pausing, rewinding and repeating.

Both these examples suggest the need for a rethinking of higher education in which we shift our focus from content to communities, and from institutions to networks of learning.

Schmidt: "Europe has a huge advantage over the USA: believe and support of public education. Build on this tradition."

More open learning also means a need for more open credentials. This means that learners need a way to record all their learning, obtained from different sources, in a standardised and verifiable way. Currently, learners mainly use online portfolio sites such as LinkedIn for documenting this learning. Upcoming technologies such as BlockCerts will still allow learners to keep a record of their own learning, while at the same time allowing for third parties to verify these certificates with their issuers automatically.



**ENGAGING WITH OPEN
EDUCATION AND NEW
ACCREDITATION SYSTEM**

PHILIPP SCHMIDT
MIT Media Lab

ANTHONY F. CAMILLERI
Knowledge Innovation Centre

DR. ALEK TARKOWSKI
Centrum Cyfrowe



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During the session, Mr. Camilleri presented a framework for accreditation of digital learning currently being developed by the Maltese government. The aim of the Maltese system is to bring certain elements of non-formal education, in particular MOOCs, within the structures of formal education, and to stimulate innovation by providing for a trusted regulatory framework, harmonised with the European Credit Transfer and Accumulation System

Camilleri: "If your Quality Assurance system doesn't provide assurance for excellent teaching and learning – you're not doing it right"

The Maltese system has had to address four key differences between digital and traditional education to do this. There is a perception that digital assessment systems are not as robust as those used in traditional education, so the Maltese system asks providers to be explicit about their methods for securing assessment and identifying students. Since it is easy to create credible-looking diploma mills online, to have a qualification accredited, the Maltese system requires that the institution providing it and its quality assurance system be licenced.

To allow for the high levels of unbundling and internationalisation, institutions providing the qualification are held responsible for all work done by staff, volunteers and subcontractors, wherever in the world they are.

To allow institutions to experiment with unproven pedagogies, the Malta regime proposes an expert committee which will consider these pedagogies and propose licence conditions which allow institutions to innovate, while ensuring students still receive a quality product.

Tarkowski: "Digital Education sometimes totally disregards openness"

Mr. Tarkowski presented another attempt at integrating open education with formal education. In Poland, the government has used money from the sale of spectrum on digital education. At first, this was a technology-led approach consisting of purchasing infrastructure, but with time this has increasingly moved into an education-first approach focused around open education rather than only digital education. Thus, the country has funded the creation of a number of open textbooks, as well as set up a platform for open books. The next step, is engaging teachers to create their own content, and remix existing content. To do this, Poland is discussing how teaching qualifications might integrate production of open resources into their curricula.

Camilleri: "Accreditation is a tool for building trust in qualifications and institutions...in this is a tool for managing perceptions"



TECHNOLOGICAL DRIVERS OF EDUCATION CHANGE

DR. BRYAN ALEXANDER

Future Trends in Technology and Education



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Dr. Alexander gave an overview of the technologies which are most likely to transform education. Currently deployed technologies and digitally-enabled practices that are starting to, or in the midst of, effecting cultural changes: mobile devices, social media, wearable computing, eBooks, digital storytelling, digital literacy. Emerging technologies and practices include the internet of things, virtual and mixed reality, ubiquitous computing and artificial intelligence. All of this is leading to a world where we are constantly inundated by information, and where digital literacy means learning how to deal with and evaluate information, rather than purely how to use technology. In this world, where every person will increasingly make and publish their own materials, individuals and organisations which filter and organize this information will become ever-more influential. It will also lead to a world, where increasingly like-minded organizations may join forces to teach together.

Alexander: "Maybe we should look at things sceptically"

Alexander: "In the long run, I think we will evolve in computing from a mobile first to an AI first world"

"Education happens while teachers are looking the other way."
- Quote taken from the floor

INNOVATION AND DIGITAL PEDAGOGIES



INNOVATING IN HIGHER EDUCATION: EXAMPLES AND REFLECTIONS

PROFESSOR JEFF HAYWOOD

University of Edinburgh



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Professor Haywood pointed out that education is increasingly expected to be on-demand, self-paced, location-flexible as well as relevant to a student's career both now and in the future. It is also expected to be globalised, locally relevant, personalised to an individual's learning style and needs, affordable and offer a high value added. It is hard to imagine this multitude of expectations being met without a serious dose of technology.

This technology is most-easily deployed for tasks which can be repeated in mass. Thus, distribution of content (such as video), text-based interaction (such as in forums) and even certain forms of assessment (in particular multiple choice) can easily be outsourced to technology. However, bespoke academic input such as career advice, high stakes assessment and individual tutoring will remain the domain of humans on a one-to-one or one-to-few basis. This also sees a changing role for academics from mass-service providers to publishers and individual service providers. Already, many academics who are conversant with video technologies capture structure their lectures into 'bite-sized' portions ready for the web, and offer tutorials to accompany those lectures in a 'flipped' format.

Haywood: "We urgently need consistent, Europe-wide measures of innovation in Higher Education"



INNOVATION AND DIGITAL PEDAGOGIES: A FRENCH PERSPECTIVE

PROFESSOR CATHERINE MONGENET

France Universite Numerique



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Professor Mongenet considered the impact of digital learning on pedagogy. From a student perspective, campus lectures become less important since lectures can be repeated, paused and studied from home thanks to video capture. Video-capture also provides concrete benefits for academics – it encourages them to structure their material, to allow for posting online, as well as gives them a chance to review their own performances and material for the purpose of continuous improvement.

From an international cooperation perspective, several examples are emerging of courses which are produced by teams of academics from around the world collaborating online. Several MOOCs are being developed specifically to deal with development aims, dealing with topics such as public health. Also linked to development goals, several European universities are more inclined to accept foreign students from third-world countries if they have proved motivation and ability to study by enrolling in MOOCs.

Mongenet: "More and more students have to work to pay for their studies – this makes campus life harder"



CONNECTED LEARNING FOR SUSTAINABLE DEVELOPMENT

DR. BALAJI VENKATARAMAN
Commonwealth of Learning, (Chair)



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Find Out More

Dr. Venkataraman referred to the new Commonwealth Centre for Connected Learning (3CL) which has just been set up in Malta to promote the principles of connected learning. These have been part of the education vernacular for several years and before the advent of the Internet. Built on the three core values of social equity, full participation and social connection, connected learning advocates for broadened access to learning that is socially embedded, interest-driven, and oriented toward educational, economic or political opportunity. Rather than focusing on a specific technology platform or pedagogy, the focus is exclusively on the learner experience.

He also referred to a number of global Commonwealth of Learning (COL) initiatives in this vein, including the development of a curriculum for digital education leadership, the creation of off-grid, micro-servers which allow learners in regions with no connectivity to benefit from digital resources as well as an ongoing interest in the use of MOOCs for expanding the reach of post-secondary education.



TEACHERS, LEARNERS AND DIGITAL EDUCATION CASE STUDIES

DIGITAL LITERACY IN PRACTICE

JOSIE FRASER

Wikimedia



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Find Out More

Fraser: “There is a current disconnect between policy, staff and organisational development and capacity, and our aspirations for learners”

Josie Frasier presented a case study from the DigiLit Leicester project which focused on supporting secondary school teaching and teaching support staff in developing and improving their digital literacy knowledge, skills and practice, and their effective use of digital tools, environments and approaches in their work with learners. The project was designed to ensure school staff and learners got the most from the significant investment in technology being made across the city, and that schools were able to make best use of technology to meet their aspirations for transforming educational provision. Every learner attending a BSF Programme school is meant to benefit not only from a school with world-class technology provision, but from an education that is supported and enhanced by the use of technology to raise achievement and aspiration, connect communities and open opportunities.

In consultation with the schools, the project team created a Digital Literacy Framework, linking digital literacy with secondary school practice. This framework was then used to build an online survey, designed to support staff in reflecting on their use of technology to support teaching and learning, and to provide schools and the Council with information to inform our planning and next steps.



LOST AND FOUND IN DIGITAL EDUCATION - TEACHERS IN HIGHER EDUCATION

SANDRA KUČINA SOFTIČ

University of Zagreb



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Ms. Softić levered on her experience at the University of Zagreb where teachers generally have a positive attitude towards new technologies. However, in an environment where teachers are often overworked in under-appreciated positions, their work and effort in utilising e-learning should be recognised through teaching and promotion requirements.

E-learning should be part of a university's overall strategy to provide infrastructure, technology, funding and training for teachers as well as organised support in adoption and integration of technology into the educational process. This should be coupled with a system of incentives and rewards at the faculty and university level.

There is a need for a concerted effort to raise teacher's awareness of the possibilities to use new technologies in the educational process, while recognising that different teachers have different levels of technological knowhow and need to be treated differently and appropriately. Here, examples of good practice in the use of e-learning can contribute to recognising the possibilities and benefits of new technologies in the educational process.

Kucina Softić: “Better teaching is about methodology, not technology”



THE FUTURE IS NOW

NON-TECHNOLOGICAL DRIVERS OF EDUCATIONAL CHANGE

DR. BRYAN ALEXANDER

Future Trends in Technology and Education



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Dr. Alexander contextualised education in relation to current developments in the labour market and society more generally. Globalisation and automation have together created significant labour supply shocks which are eroding the middle class. As more professions are being automated, evidence indicates that not enough quality new jobs are replacing them.

In the meantime, tensions in society are being highlighted, whether they be those arising out of rural/urban splits, race, gender or nativism/globalism. Increased environmental stresses, migration cycles and the ensuing geopolitics only serve to exacerbate these splits.

From an educational perspective, all this leads to significant questions: Do we continue to invest in education in the same way as in past decades, despite a changed world? Do we continue to promote globalism amongst an increasing trend towards localism? Dr. Alexander suggests that these questions can only be solved through radical collaboration amongst academics around the world.

Alexander: "By all the evidence we have, as we automate new professions, we do not create new jobs to replace them"



THE FUTURE IS NOW

ENGAGING WITH BLENDED LEARNING,
MOOCS AND MORE

FRANCE UNIVERSITE' NUMERIQUE



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DR. CATHERINE MONGENET



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Dr. Mongenet presented an initiative from the French Ministry of Higher Education launched in 2013 the project "France Université Numérique" to support French universities to develop online education and promote innovative teaching and learning methods using digital and online tools. It resulted in the launch of the FUN MOOC platform, dedicated to French and Francophone universities and their international academic partners. Since September 2015, a public organisation (called GIP FUN-MOOC) has been created to carry on the FUN platform. The objectives of this organization are to manage the platform and its evolutions, to develop new partnerships and activities, in the context of life-long learning education and to increase its international visibility especially in the Francophone world.

As the FUN platform grows, increasingly MOOCs are being used on campus with flipped classrooms and blended/hybrid learning. Additionally, MOOCs are increasingly being organised into collections and series, which in turn are leading to the award of micro-credentials. Recently, 'experiments' have been launched for awarding ECTS for these credentials.

Additional trends are the strong development of SPOCs for life-long learning and continuous training, in companies or for unemployed people, the reinforcement of North South teaching cooperation through the co-conception and co-animation of MOOCs, new cooperation with the socio-economic partners.

Mongenet: "We are making sure learners have a better education through blended teaching"




OER AND EQUITY

DR. CABLE GREEN
 Director of Open Education at Creative Commons,
 (Chair)

JOE HIRONAKA
 UNESCO

DR. ALEK TARKOWSKI
 Centrum Cyfrowe

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 Find Out More

The session explored how Open Educational Resources (OER) make universal access to high quality, effective education materials (courses, textbooks, degrees) possible. The world's nations have adopted the 2030 Agenda for Sustainable Development and committed to 17 Sustainable Development Goals (SDGs). Joe Hironaka points out that, from a UNESCO perspective, what is unique about them is that they include indicators for tackling inequality issues. The SDGs are not binding, but rather are collective aims for action by the global community. They provide an opportunity to really move forward with OER.

“Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”
 - United Nations Sustainable Development Goal #4

Dr. Green proposed that a shift to OER improves access and equity by ensuring access to more current, relevant and effective quality content. Open Education improves learning outcomes, reduces time-to-degree and course dropouts. It also allows students to become producers of knowledge, which is shared freely and globally.

4.3 - By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.
 - United Nations Sustainable Development Goal #4.3

Dr. Tarkowski gave an example of a case study in Poland, where in the past textbooks were purchased by parents – which constituted a significant financial pressure for people from disadvantaged backgrounds. By moving to open textbooks, Poland was able to remove the costs of textbooks from schools and increase equity.

Green: “Publicly funded education and research should be openly licenced”

Dr. Green suggests that governments have a significant role in using OER in service to the SDGs. Governments should build ICT infrastructures to enable discover of OER and support collaboration of educators who want to build, share and adapt OER. They should also ensure accessibility of OER for persons with special needs.



FUTURE TRENDS IN EDUCATION

POSSIBLE FUTURES FOR HIGHER EDUCATION

DR. BRYAN ALEXANDER

Future Trends in Technology and Education



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Dr. Alexander presented a scenario of a university 10 years from now, based on the potential of current technology. In this institution students would be producers and own their intellectual property, virtual reality would be the norm, all aspects of student life and the learning experience would be analysed and monitored, while all parts of the campus would be networked – both in terms of people and objects.

Potential positive developments until 2030 include the rise of a sharing mindset, an improved gig economy, less company and employee loyalty, more global conversations, filter bubble pops, creativity increasing because of more content, information prices (books, resources etc) falling and digital literacy being central to the curriculum.

Potential negative developments include the disappearance of academic publishers and consequently information sources becoming less reliable with increased piracy, malware and loss of privacy becoming the norm.

Alexander: “The only solution to today’s problems is to collaborate radically across borders, across sectors, across populations, across professions as openly as possible, so we can think collectively.”

FUTURE TRENDS IN EDUCATION

A HANDFUL OF PREDICTIONS

PROFESSOR JEFF HAYWOOD

University of Edinburgh



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Haywood: "In the future no student will graduate without an experience of fully online learning"

Professor Haywood considered the academic year and its consequences such as slow repeat rates for courses, and minimum required times to graduation, irrespective of how fast students achieve learning outcomes. Institutions will need to evolve towards unbundling degrees into multiple courses for credit. They will also need to begin quantifying the value added their services offer, especially taking their cost into account.

Currently institutions offer very limited personalisation, limited options for work based study and little recognition of prior learning. All these elements are often taboo within Higher Education Institutions – but they will need to be overcome in the next few years if institutions are to remain relevant.



APPLICATIONS OF BLOCKCHAIN FOR EDUCATION

CHRIS JAGERS

Learning Machine



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Find Out More

Chris Jagers presented a case study of the blockchain, which provides a new technical infrastructure of trust that is used to store an immutable history of transactions. Issuing official records to students is an example of a transaction that can be cryptographically signed, permanently recorded on the blockchain, and independently verified by anyone who has been given access to a record. Examples of learner-owned records could include diplomas, transcripts, memberships, professional certifications, licenses to practice, awards, and records of completion. Using the blockchain as a notary to record and verify claims allows workers, students, and citizens to build their own history of lifelong learning and professional achievement.

This evidence can be directly shared with others, at whatever level of granularity the individual chooses to disclose, when applying for further education, employment, or immigration. Because these are official records, blockchain-based records protect individuals in circumstances where their school, employer or government have dissolved or when they have been displaced and are forced to begin again in a new land.

Jagers: "Blockchain enables educational institutions to issue a digital record that is tamper proof, can't be spoofed, and can be independently verified without consulting the original institution."



STAKEHOLDERS FORUM

INITIAL FINDINGS OF OPENING UP EDUCATION

DR. ANDREIA INAMORATO DOS SANTOS

Joint Research Centre, European Commission



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Dr. dos Santos presented the ongoing OpenEdu Policies research project by the European Commission's Joint Research Centre on behalf of DG EAC, with final results expected by Spring 2017. It aims to analyse, scope, refine and propose policy recommendations on open education for both policy makers in Member States (MS) and at European level. Cases studies have been carried out in the 28 EU member states. The goal was to understand the 'policy picture' of open education, both nationally and regionally, in each European country.

While some governments such as France, Slovenia and Germany have bespoke open education policies, in most cases Open Education is integrated into other policy frameworks such as those on ICT in Education, Education Strategies or Open Government Plans. These policies are enabled by grassroots communities, capacity building amongst leaders and educators, as well as by clear policy priorities assigned to open education. On the other hand, slow bureaucracy, fragmented initiatives as well as low policy priorities and low institutional support for such policies can hinder adoption.

Inamorato dos Santos: "Where there is a Policy there must be guidance and Support to Stakeholders"



STAKEHOLDERS FORUM

OPENING UP DIGITAL EDUCATION

JOSIE FRASER

Wikimedia



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Josie Fraser pointed out that school staff work with, create and share digital resources daily: however, research carried out across 23 UK mainstream and special education schools highlighted the existence of a significant gap in confidence and understanding in relation to the legal use and status of materials.

As part of the DigiLit Leicester project, staff were supported in developing essential digital literacy skills and knowledge in relation to their everyday practice, to address this gap and to understand and make use of the wealth of high quality openly licenced resources that are available.

To support and augment this work, Leicester City Council also provided blanket permission for school employees to openly licence materials developed in the line of their work. This case study highlights the positive role clearly linked policy and practice can play in supporting school, staff and learner digital literacy, and points to the untapped national opportunity that engaging with copyright and licencing represents.

Fraser: "Teachers can't take advantage of open education if they don't know it exists"

- Josie Fraser



EUROPEAN STUDENT PERSPECTIVES ON DIGITAL EDUCATION

ALEKSANDER ŠUŠNJAR

European Students Union



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Mr. Šušnjar shared the position of the European Students' Union (ESU) that digital learning improves the quality of learning of the learning process and improves personalisation of learning. However, ESU sees digital education as a supplement to traditional education, which is seen as a human right. The union's main concerns around digital education centre around issues of equitable access, as well as around the many instances of superficial, low-quality implementations of digital education. They also stress the need to concentrate further on professional development of teachers.



DIGITAL EDUCATION FOR REFUGEES

GENEVIEVE BARRONS

Open Society Foundation



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Ms. Barrons outlined four challenges in providing education to refugees. Legal issues may stop education already received from being recognised, while language issues may make comprehension and learning impossible. Refugees also face financial issues in participating in education, while host countries face challenges in providing enough places.

Digital education provides some solution for these challenges. The InZone project run by the University of Geneva allows refugees in camps in Amman to participate in EdX courses concurrently with students from Princeton. The Borderless Higher Education for Refugees provides a full-teaching degree to refugees in Africa, offered by universities in the West, but organises it online and builds it out of a series of smaller credentials. Thus, if students need to move to a different location during their studies, they can take the learning they have already completed with them – digital makes learning become truly 'portable'.

Barrons: "What have I learned? Blended learning is best. For refugee-students physical contact is important. Mentorship to know the new reality is important. Accreditation matters. Some of the most interesting projects are using Facebook and WhatsApp, so there is no need to invest in new tech. At HE a new system is needed and not just tweaks to the current system to accommodate refugees."



MALTA'S DIGITAL EDUCATION DEPARTMENT: THE STORY BEHIND IT

EMMANUEL ZAMMIT

Malta Ministry for Education and Employment



Watch the presentation

Zammit: "Many teachers still don't understand that digital literacy is an entitlement"

Mr. Zammit presented the concepts behind the Maltese Government's Digital Literacy Department. It is currently rolling out tablets to all students in schools, however the main focus on the programme is on pedagogy and connected learning, rather than on technology. The roll-out is being accompanied by training and mentoring of teachers that will teach using the tablets, as well as providing opportunities for peer-learning between teachers online and in-person.

The department has published a green paper on digital literacies defining it in terms of collaboration, critical thinking, creativity, citizenship, coding, character and communication. The Ministry is also preparing a National Digital Strategy based on the EU Framework for digitally competent educational organizations



MALTESE STUDENT PERSPECTIVES ON DIGITAL EDUCATION



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At the end of the session, a panel of Maltese students suggested caution was still the order of the day with fully online learning, stressing the social nature of learning, and the contacts that can be made from learning face to face. On the other hand, they also recognise the global social contacts that can be made online, and stressed that use of technology in the classrooms still needs to catch up with everyday usage.

Maltese students: "A whole course only online in such areas as nursing is only theory. It's more fun to to have physical presence. A little of both is best."



CONFERENCE
CONCLUSIONS

**THE STATE OF DIGITAL EDUCATION:
WHAT I LEARNED**



Watch the presentation

ANTHONY F. CAMILLERI



Download the Slide Deck

Mr. Camilleri presented 12 lessons, structured under each theme of the conference:

OPENNESS & EQUITY IN HIGHER EDUCATION

Lesson 1: Open Education is becoming a reality for more people

There are a multitude European and global examples of open access, pedagogy, licences, content and practices. In most cases, the number of these examples is increasing exponentially and being supported by open education policies.

Lesson 2: Digital Opportunities come in multiplies with well-off best positioned to take advantage of benefits

While open education creates opportunities for people in every strata of society globally, the well-off and educated benefit disproportionately when compared to other groups. It is easier to pursue open education when one has college-educated parents, a broadband connection and no other commitments aside from education. Despite a multitude of digital initiatives which have proven success in increasing equity, digital has not produced the same sort of large scale societal changes as the massification of education in the 1960s and 1970s. While digital has the potential to make similar leaps in equity, the exact methodology by which to do this remains elusive.

SYSTEMS FOR ACCREDITATION AND QUALITY ASSURANCE OF ONLINE LEARNING

Lesson 3: Trust is about Perception

Any system for quality assurance of digital education needs to create trust amongst the higher education community. This means that aside from a robust QA Framework, the digital learning community must address common (even if invalid) criticisms levelled at digital education. Many of these centre around the kind of learning activities that can be performed through digital education, as well as how to assess and certify such education.

Lesson 4: Accreditation and Quality Assurance of Digital Learning are a Scale Up Problem

The educational reforms in Europe arising out of the Bologna Process were designed to enable portability and transfer of qualifications, as well as to create trust between different educational institutions. These same methodologies apply excellently to digital education, with little change. Numerous pilots and projects have been run around Europe to confirm this. All that remains is for governments to deploy the policies necessary to bring digital education within existing quality and recognition frameworks.

INNOVATION & DIGITAL PEDAGOGIES

Lesson 5: European Publicly funded Higher Education is the real use case for original MOOCs

Publicly funded education provides a business model for MOOCs, since public institutions already have a mandate to provide free, high quality education to the maximum number of students possible. Thus, while in more privatised systems, MOOCs are developing into SPOCs and other types of private training, a European publicly funded open education and MOOC model is clearly emerging.

Lesson 6: Unbundling is Unstoppable: but competition is fierce to lead the micro-credentials revolution

Digital Education is increasingly breaking traditional programmes, into smaller, shorter online courses. This trend is set continue and expand dramatically. The discussion in the next few years will centre around whether universities will adapt to offer large-scale micro-credentials, whether VET institutions will take up the mantle, or whether it will increasingly become the domain of startups and corporations.

Lesson 7: (Digital) Pedagogies are still immature)

Despite advances in neuroscience, behavioural science, big-data in education, their impact on digital education pedagogy is still limited. Thus, the science of digital education is still in its infancy and has yet to become a major area for research and development in coming years.

TEACHERS, LEARNERS AND DIGITAL EDUCATION

Lesson 8: There is a massive digital divide within our institutions

Digital competences have not been mainstreamed throughout educational institutions. It is common to have digital evangelists and teachers with little to no digital competence working side by side within the same institution. This limits uptake of technologies.

Lesson 9: Technology has already created a global faculty and student body

At every level of education, both educators and students collaborate with peers globally, with collaboration increasingly happening around topics of interest rather than based on location.

FUTURE TRENDS IN DIGITAL EDUCATION

Lesson 10: Some People Resist Change

Despite countless declarations in favour of open education and in favour of increasing equity in education, neither of these principles has been fully adopted at any level of education. Thus, even at policy level, principles such as open licencing of content, or equitable participation of persons from different social backgrounds in policy events have not yet been mainstreamed.

Lesson 11: The dominant Paradigm in looking at the future is Fear

Today's societies are faced with an unprecedented number of stresses due to technology, which are leading to changes to every aspect of life and employment. This is causing an underlying undercurrent of fear in all discussions about digitally-enabled futures, which must be addressed head-on.

BEST PRACTICES IN POLICY DESIGN FOR DIGITAL EDUCATION

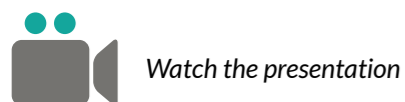
Lesson 12: The Outlines of Immediate Policy Action are Clear

Immediate policy actions around digital education in Europe involve mainstreaming open access, establishing quality assurance schemes, establishing mechanisms for digital trust verification, training of teachers, supporting the development of micro-credentials and expanded use of distance and blended learning methodologies.

Lesson 13: The State of Digital Education Today is Reactive

The conversation around digital education today is framed around how to enable people to cope with a changing world, rather than asking what education's role is in creating this world. In the longer term, to integrate the vast changes being wrought by technology requires a values-based discussion around which future scenarios are desirable for our societies, and what is digital education's role in accelerating them.





“Digital is not our salvation. The Alternative is not inferior.”

Dr. Grech concluded by re-framing the key tenets of the conference within the Malta Presidency’s focus on equity and inclusion through diversity. The affordances of technology are such that the wealth of networks needs to continue to resonate beyond the timescale of any Conference.

How Participants Covered the Conference?

Conference hastags:
 #EU2017MT
 #DGED

<p>@BryanAlexander I begin #EU2017MT by outlining non-technological trends driving higher education. I think I disturbed the early morning audience.</p>	<p>@aisantos What is open education for you? #EU2017MT</p>	<p>@NiinistoS The world is changing: #education #policy and #leadership in #digital age. Thank you!</p>
<p>@mcecilia6 How will education change in the short and medium term future?</p>	<p>@anthonyfc Accreditation done well is about widening opportunities as a result of education.</p>	<p>@veecam #learninganalytics in #HE - it is way forward but I am still skeptic about how admin & academics will use data well.</p>
<p>@mamusia66 Is there a difference between educators’ digital skills at home and in the classroom? overlap exists of course.</p>	<p>@BryanAlexander Question: do we need a trusted set of registries to make blockcert work?</p>	<p>@josiefraser Passion & love!</p>
<p>@ElearningM #eu2017mt #dged #Malta nothing to add.</p>	<p>@BryanAlexander! I enjoyed!</p>	

SELECTED COVERAGE & BLOG POSTS

- Might MOOCs prove to be disruptive? An Essay by Jeff Haywood**
http://www.homepages.ed.ac.uk/jhaywood/papers/Haywood_Might%20MOOCs%20Still%20Be%20Disruptive%20preprint.pdf
- Open Education for Schools – Policy and Practice by Josie Fraser**
<http://www.josiefraser.com/2016/03/oer-resources/>
- Wherefore distance education in the digital age? By Gorg Mallia**
<https://gorgmallia.wordpress.com/2017/01/20/wherefore-distance-education-in-the-digital-age/>
- Another Glimpse of European Higher Education and Technology by Bryan Alexander**
<https://bryanalexander.org/2017/01/29/another-glimpse-of-european-higher-education-and-technology/>



Haywood: "There has never been a time when so many people from across the globe have come together to learn at this scale"