

Book of Abstracts



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CONSORTIUM

The Global Network for Open Education

 **TU**Delft

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Abstract	<p>The Open Education Global Conference is where the world meets to discuss how opening education helps us achieve universal access, equity, innovation and opportunity in education. The OE Global conference is the most internationally diverse conference devoted exclusively to open education, attracting researchers, practitioners, policy makers, educators and students from more than 35 countries to discuss and explore how Open Education advances educational practices around the world. OE Global 2018 will take place from 24-26 April 2018 in Delft, the Netherlands, hosted by the Open Education Consortium and Delft University of Technology. The theme of OE Global 2018 is Transforming Education through Open Approaches. Conference tracks include Open Connections, Open Education Research, Innovation through opening traditional practices, Policies & strategies for Open Education, Institutionalizing Open Education, Tools & Technologies for Open Education, Open Educational Practices, Open Pedagogy, Connecting Open Education to formal education, and Student perspectives.</p>
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Foreword

The Open Education Global Conference is where the world meets to discuss how opening education helps us achieve universal access, equity, innovation and opportunity in education. The OE Global conference is the most internationally diverse conference devoted exclusively to open education, attracting researchers, practitioners, policy makers, educators and students from more than 45 countries to discuss and explore how Open Education advances educational practices around the world.

OE Global 2018 will take place from 24-26 April 2018 in Delft, the Netherlands, hosted by the Open Education Consortium and Delft University of Technology. The theme of OE Global 2018 is *Transforming Education through Open Approaches*.

In this book of abstract you can find all the abstracts of sessions that will be presented during the conference. Some of the abstracts also include a link to the full paper, either in the Conference Proceedings or in a special edition of the [OpenPraxis Journal](#).

We would like to thank our sponsors for their support of open education and this conference especially

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Keynotes



ERIN MCKIERNAN
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Mexico City

Erin McKiernan is a professor in the Department of Physics, Biomedical Physics program at the National Autonomous University of Mexico in Mexico City. She is a researcher in experimental and computational biophysics and neurophysiology, and an advocate for open access, open data, and open science. She is the founder of ‘Why Open Research?’ (whyopenresearch.org), an educational site for researchers to learn about sharing their work. She blogs at emckiernan.wordpress.com and you can follow her on twitter at [@emckiernan13](https://twitter.com/emckiernan13).

Session Title: Working at the intersection of open research and open education

Open education and open research are often discussed in separate forums as distinct concepts and activities. However, since faculty members are often both educators and researchers, these areas of open scholarship often overlap and have many principles in common. I will discuss these common principles, as well as projects I am currently working on that combine both open education and open research. I will discuss how this intersection can be especially important when working with undergraduate students in low income environments.



VINCENT ZIMMER
CO-FOUNDER AND BUSINESS DEVELOPMENT DIRECTOR
Kiron Open Higher Education


Germany

Vincent Zimmer, Co-Founder and Business Development Director of Kiron Open Higher Education

Vincent Zimmer is the Co-Founder and Business Development Director of Kiron Open Higher Education in Germany, an educational platform for refugees. He completed two master’s degree study programs, “International Economics” at the Georg-August-University Göttingen and “Public Policy and Administration” at the London School of Economics. Vincent Zimmer has a lot of experience in the startup area and has been already involved in several foundings. Furthermore, he worked in a consultancy (Rambøll Management Consulting) and with students in crisis during his time at “Study without borders”. His experiences in the refugee area and a research stay in Istanbul, moved him to found Kiron together with Markus Kressler in 2015. Connect with him on [LinkedIn](https://www.linkedin.com/in/vincentzimmer/).

Session Title: The (Digital) Future and Transformation of Universities



After a career in marketing & communication in Scientific Publishing and Public Broadcasting, Annemies Broekgaarden set up the Dick Bruna House Foundation to find a home for the collection of the world-famous Dutch artist Dick Bruna. Her involvement in museums and education turned her into a professional in museum education. Starting as Head of the Tropenmuseum Junior in 1999, Annemies' skills in communication, management, international project management, and cultural anthropology eventually led her to the Rijksmuseum in Amsterdam. In 2008, she accepted the challenge of formulating the Rijksmuseum's educational policy, programming, and products for the museum after it reopened in 2013. Furthermore, she was tasked with building up the education department and developing an educational centre – the Teekenschool.

Session Title: Innovative learning in a museum context

Education is a museum's core business: a museum is education. The Rijksmuseum is home to the national collection of art and history of the Netherlands. It presents some of the nation's finest objects. For example, it houses the largest collection of paintings by the great seventeenth-century master Rembrandt, including his amazing Night Watch. Visitors experience one century after another, from the Middle Ages to the twenty-first century. The Rijksmuseum is for everyone. So we try to be relevant to all our visitors: tourists, school children, teachers, families with children and professionals. Everyone comes to the museum with their own expectations. So we aim to give visitors a personal, personalised experience by providing both guided programmes and online options.

In my keynote address I would like to share my ideas about our educational strategy, especially our digital approach using digital tools and programmes such as Rijksstudio (based on resources, published under a Creative Commons license), multimedia tours and Snapguide, which recently won the Golden Lovie Award.



Peter Smith is the founder of three innovative colleges, the Community College of Vermont, California State University Monterey Bay, and the Open College at Kaplan University. He received the OEC Leadership Award for Open Education Excellence in 2015 and currently serves as a member of the OEC Board. His most recent book, *Free-Range Learning in the Digital Age: Breaking the Barriers Between Life, Learning, Career and College* (Select Books, NYC) is due for release in June, 2018. He blogs at (www.rethinkinghighereducation.net) and can be found on twitter at @peterpsmith.

Session Title: Free-Range Learning in the Digital Age: the Role of Open Resources in Defining What the Future Holds.

The traditional barriers to formal and important learning are officially down. But the full impacts of this emerging “new world” of learning, on institutions as well as individuals and the larger society, are only beginning to be felt and understood. Based on the research and interviews that were done in the preparation of the book, this session will explore current developments, suggest implications for universities and colleges, describe new types of services and organizational structures, in an effort to shine a light on the larger implications of the disruptive change that is upon us and the role of OER and OEC in that change.

Abstracts

The theme of the Open Education Global 2018 Conference is *Transforming Education through Open Approaches*. The abstracts are ordered per track:

Open Connections

Connecting different worlds of Open, such as open access, open science, open source software; strengthening our reach and increasing impact through collaboration.

Open Education Research

Research on practices to mainstream openness in education; evidence of impact, studies of educational transformation using open modalities.

Innovation through opening traditional practices

MOOCs as an accelerator for open & online education, opening teaching practices through open textbooks, openly licensed student work as OER.

Policies & strategies for Open Education

Setting priorities and conditions for mainstreaming Open Education, designing effective policies and strategies, connecting open education policies to larger policy movements such as the UN Sustainable Development Goals and the Open Government Partnership.

Institutionalizing Open Education

Intellectual property arrangements at schools and universities; reward and recognition systems; institutional conventions; disciplinary norms; types of in-service training for Open Education; impact on hiring practices; challenges and barriers for mainstreaming openness; openness as a tool for community outreach, enhancing leadership in open education.

Tools & Technologies for Open Education

Supporting the development and use of tools for OER production, hosting, use and remix, authoring OER, conventions for tagging OER, hosting derivative works, citation conventions for derivative works, standards for remixable formats.

Open Educational Practices/Open Pedagogy

New approaches to teaching and learning based on openness, personalization of education, OER-enhanced teaching, facilitating informal learning with open resources, course redesign with a focus on open.

Connecting Open Education to formal education

Accelerating adoption of open education, recognition and rewards for open education adoption, alignment of open education values to institutional mission, accreditation of open education, blockchain technology for (open) certification, recognition of learning through open means.

Student perspectives

Student-led initiatives to advance open education and research, impact of open for students, student perceptions of open education, students as open education leaders.

Open Connections

Open science, open government and open data: creating an impact through open online education and Virtual Research Environments

Anneke Zuiderwijk, Keith Jeffery and Yi Yin

Keywords: open data, open science, open government, open online education, online education, Virtual Research Environments, VRE

Virtual Research Environments (VREs) are online environments providing access to data, software and resources of various e-research infrastructures. VREs support research excellence by providing innovative services related to metadata, data context and trust generation, data analytics, scientific publications, researchers' collaboration, interoperability, semantics and data preservation. Yet, creating an impact with VREs is challenging. Researchers may not be aware of developed VREs or they may not know how to use them for their research purposes. This paper aims to: 1) discuss how the elements of one particular VRE stimulate openness in relation to open science, open government, and open data, and 2) explain how the reach and impact of these openness elements can be strengthened and increased through open online education.

The VRE we discuss concerns a Europe-wide interoperable VRE to empower multidisciplinary research communities and accelerate innovation and collaboration (see www.vre4eic.eu). Possible openness stimulating elements provided by this VRE include mechanisms to keep track of changes made to datasets, networking tools integrated with existing social media, interoperable workflows, the interoperation of heterogeneous e-Research Infrastructures leading to new science and Application Programming Interfaces for developers to include new research infrastructures. Two online courses, including a Massive Open Online Course (MOOC), were developed consisting of short videos explaining VRE concepts and how the VRE elements can be used (disseminated as widely as possible). Video content was connected to engaging assignments and course participants shared their findings with each other on a forum to learn from each other. Connecting openness elements of VREs to open education strengthened the reach and increased the impact of the developed VRE. We recommend related projects in the area of open data, open government and open science to explore the possibility of using open education as a means to connect to openness elements.

Full Paper: <http://resolver.tudelft.nl/uuid:aa06ce95-4868-4343-acf8-df435233dcfc>

CC Open Education Platform

Cable Green

Keywords: CC Open Education Platform, Community, Big Open, Creative Commons Network, Inclusive

This session will discuss the Creative Commons Open Education Platform, what it's doing, and how to join. Everyone is welcome!

In early 2017, the Creative Commons Global Network completed a consultation process of renewing and reorganizing itself to support a strong and growing global movement. The year-long process resulted in the CC Global Network Strategy. Part of the new strategy is to establish defined areas of

focus, or “platforms,” which will drive CC’s global activities. Platforms are how we organize areas of work for the CC community, where individuals and institutions organize and coordinate themselves across the CC Global Network.

In the spirit of openness and to effectively strategize, these platforms are open to all interested parties working in the platform area and adjacent spaces. The CC Open Education Platform is the space to:

- Stay connected to global actions in open education resources, practice, and policy.
- Identify, plan and coordinate multi-national open education, practices and policy projects to collaboratively solve education challenges with an amazing group of open education leaders from around the world.
- Secure funding (from Creative Commons and other funding sources) for the open education projects we collectively select.
- Contribute to global perspectives on open education to strengthen advocacy worldwide.
- Connect your country / region to global open education initiatives.
- Be on the forefront in implementing Creative Commons’ global network strategy.
- Meet annually, in-person, at the Creative Commons Summit with members of the CC Open Education Platform to celebrate successes, share best practices, and plan for the next year.
- Explore, practice, and share innovative methods for inclusive and open engagement with educators, learners and governments around the world.

Introduction to Open Education and Creative Commons

Cable Green

Keywords: [Beginners](#), [Open Education](#), [OER](#), [Creative Commons](#), [open licenses](#), [movement](#)

As more educators, librarians and policy makers join the open education movement, there is a need to provide a welcoming space to discuss the core ideas of open education. This session will provide an overview of open education content (OER), practices (OEP) and policy for beginners. This is a safe space for all questions. Everyone is welcome!

Dr. Cable Green, Director of Open Education at Creative Commons, will provide an overview of the field, current trends and challenges, and facilitate a Q&A session and discussion to ensure all participants are knowledgeable about open education and ready to advocate for it.

EUROPEANA: Open Culture for Open Education

Isabel Crespo

Keywords: [open education](#), [open digital culture](#), [open data](#), [OER](#)

Europeana is Europe's digital platform for cultural heritage, founded and funded by the European Commission. The presentation will introduce Europeana as an educational resource and show how open cultural data can bring value to open education. In particular, we will present our rich and diverse collections (on many themes, in many media types and languages); focus on the variety of curated resources, ranging from thematic collections to virtual exhibitions and provide examples of

interactive and free educational resources with digital cultural heritage content. Finally, we will also tell more about the online tools which will allow educators, instructional designers and technologists to enrich their digital educational materials and activities with open cultural data and inspire learners of all ages.

How can we destroy the open education movement? Conversations about ethics.

Jamison Miller, Maha Bali, Catherine Cronin, Christian Friedrich, Christina Hendricks, Sukaina Walji, Martin Weller and Taskeen Adam

Keywords: Ethics, Sustainability, Inclusion, Exclusion, Accessibility, Colonialism

Openness is a process that requires and benefits from critical reflection. We believe that facilitating and stimulating critical discussion/debate about the contours and direction of the open education movement (OEM) is essential to its flourishing. In this spirit, the proposed session is intended as a space for participants to unearth and critically explore timely, perhaps uncomfortable questions that may not be at the surface of what we are doing as individuals or as collaborators within the OEM. The facilitators in this session do not have answers. Rather, we host an unconventional, interactive format designed to expose difficult topics and support innovative interventions. The session format supports both in-person and virtual (online) attendees working together on outlining and discussing pressing ethical questions in the OEM. This session allows participants to engage in a critical conversation that is liberating, paradigm challenging, constructive, and inspiring.

The OER World Map: Suddenly grown up – and now?

Jan Neumann and Robert Farrow

Keywords: OER World Map, OER indicators, monitoring, reporting, OERinfo, Global OER community, Mapping OER, Linked Open Data

The OER World Map is an ambitious project which records and shares data about OER activity and actors worldwide. The presentation gives an overview of the state of platform, community, and business model development within the project and outlines next steps. The OER World Map provides growing value for its users. It takes an integrated approach which combines top-down and bottom-up elements in order to release the full potential of the platform. Throughout 2017 our work has concentrated on the question how the platform can support the development of a regional OER community in one country. Basic elements of the model developed in Germany are an OER country map and reports, which combine narratives with underlying primary data. Data collection is done by an editorial office in cooperation with the local community. The developed model can be used as a reference point for the implementation of the platform in other countries. In order to prepare breakthrough on a global scale, and the implementation of more country maps, we will start a strategic partnership programme and increase social networking functionality of the platform.

Full Paper: <http://resolver.tudelft.nl/uuid:65db838b-decf-4e29-b2dd-665ee5a0e5b0>

Re-use and Re-design of a TU Delft MOOC on project management for the ECATA consortium

Jan Post, Renee van de Watering, Mark Voskuil and Marian Bosch-Rekveldt

Keywords: OER, MOOC, Project Management, Aerospace, ECATA

TU Delft is an avid promoter of the use of open educational resources in both online and campus education. In this latest project the faculties of Aerospace Engineering and Civil Engineering are working together to re-use and re-design a MOOC on project management for a consortium of Aerospace professionals. The consortium offers a yearly course to high potential employees from companies like Airbus, SAAB, Safran and Dassault that is designed to enhance the management and leadership capabilities of their future programme directors. The consortium has seen large differences in basic project management skills between their participants over the years and would like to create a pre-course online module to test these skills and to provide all participants with the same basic knowledge pre course. Participants that are already highly skilled can either skip the module or choose an advanced topic to work on.

The goal of the current project is twofold. The first goal is to create a pre-course questionnaire using the topics from the MOOC to identify any gaps in project management skills among participants. This test will be taken by all participants. The second goal is to re-use and re-design as much of the material of the MOOC as possible, in order to create an online module that will help all participants get to the desired starting level in project management before the course begins.

Implementing Online Education with Open Source Software

Jihn-Fa Jan and Yu-Hui Chen

Keywords: online education, open source software, Moodle, learning management system

Moodle is a very well known learning management system that has been used by educational institutes of all levels world wide. Built using open source software, Moodle provides very abundant tools for the users. There are many freely available extension packages developed by experienced professionals that are meant to enhance the system, however, these packages often need to be checked or modified in order to work with current system. Although the Moodle system is free, depending on the scale of implementation, it may require full-time manager and system engineer to execute various tasks such as software installation, daily management, system backup, upgrades, and security updates. Aiming to reduce the costs of system operations and maintenance, a consortium consisting of 12 universities in Taiwan was formed to share experiences and develop software packages that can be distributed among the members. Based on Moodle version 3.1, the consortium had released the first version of Moodleset in September 2017, which was a result of a series of discussions and numerous communications for decisions on software development priorities proposed by the members. This paper presents a case study of using Moodleset to implement a learning management system for open and online education. Particularly, we demonstrate how open source software can be used to support online education, including courses management, learning records analysis, visualization of statistical analysis, reporting utilities, exam questions banks, and interactive response system. We also show changes of course design and teaching approaches that adapt to

online education. The results show that through collaboration we can build a better learning management system with lower costs, and most importantly we can connect with various worlds of open technology and increase our impacts, which are not only beneficial to the teachers and schools, but also may open new opportunities for the students.

The Bridge to Everywhere: Metrics, Transparency and OER

John Liebhardt

Keywords: analytics, assessment, scholarly communication, research, publishers, transparency, collaboration

OER stakeholders strive to validate quality and impact of educational materials. One step toward this goal is to create a set of universal metrics to increase reporting and analysis of results. The OER movement can learn and borrow from other communities (especially open source and open access) to collaborate and come up with metrics that are easy to use and simple to understand. Using agreed-upon measurements will make it easier to validate, aggregate and compare data across different platforms, different content and learning environments. This is especially important as the OER community grows and more stakeholders have a need for data. Secondly, as seen in other communities, these metrics should be transparent and published widely through report cards, dashboards and other tools for easy access by stakeholders. Transparency will increase communication throughout the OER community, perhaps increasing collaboration and strengthening the community. Examples from the American University of Sharjah and other communities will provide illustration that strengthening metrics through better data collection will enhance broader conversations about research assessment and increasing impact throughout the OER community.

Open Source Software as output of the Researcher: an approach to support researchers as inspiration for Education.

Julie Beardsell

Keywords: New models, Open source software, Output of research, Support to researchers

Open source software gained hold with the rise of the Internet. The open source software movement arose to clarify copyright, licensing, domain, and consumer issues. In the past decade, the open source software development approach has gained popularity and has become an integral part of the work of many researchers, particularly in technology related fields, whereby software is produced as an output of the work of the researcher.

There are benefits in the open approach to sharing, but also challenges. The ambition of the presentation is to share the approach used at TU Delft to gain a better understanding of the needs of researchers in the area of open source software as output of the researcher. The intention of the presentation is to provide inspiration to those in Education who may find it interesting to learn from the approach applied to research.

The presentation is not technical in nature intended to be accessible to those with limited knowledge of the subject. It will include definitions of open source software (OSS) and its applicability for science. How TU Delft is viewing the increasing adoption of open source software and the priorities that are being worked on. The approach that was taken during

2017 will also be shared, including what has been learnt so far. In addition, activities that are being planned during 2018 will be presented.

Finally, the session will wrap up with an opportunity to ask questions and exchange ideas on the applicability of the approach to the context of Education.

Openness = Open Education + x? Universität Hamburg's integrated approach to opening up Education and Science

Kerstin Mayrberger, Tobias Steiner, Nina Rüttgens and Franziska Bellinger

Keywords: openness, practices of open science, open access, open source, openLab, open education

As the 2nd OER World Congress in Ljubljana has recently shown, open education has come a long way since its digital renaissance during the early 2000s (Nyberg 2010 [1975]; Farrow, Deimann 2012). In Germany, more and more HEIs now strive to implement OER strategies to allow for institutional development of open education. Similarly, a lot of energy is invested in the production and dissemination of Open Educational Resources as a hands-on manifestation of what it means to teach, learn and work in the open (Orr, Neumann, Muuss-Meerholz 2017).

Within the City of Hamburg, openness has played a crucial role ever since the city's mayor and senate decided on the governmental strategy of "Digitization of the Metropolitan Area". Drawing from a selection of projects that have been realized at Universität Hamburg in that context, we discuss aspects of openness that have emerged from this push towards digitization and openness in the Hamburg metropolitan area. As we will show along preliminary results from ongoing projects such as Hamburg Open Online University (HOOU), SynLLOER (federal government-funded OER awareness), and Hamburg Open Science (HOS, currently in planning), Universität Hamburg is striving towards an implementation of openness that extends beyond a focus on Open Educational Practices.

Based on an understanding of the requirements of everybody working in higher education to not only engage in teaching and education, but also often conducting academic research in one way or the other, the convergence of experiences made in the outlined projects led to an integrated approach of an 'openLab' (DeRosa, Blickensderfer 2017) that focuses on a combination of open education with the field of open science by including aspects of open access, open data and open source – with the goal to foster a culture of openness that includes OEP as well as Practices of Open Science (POS).

Open Sketching: Connecting Contexts and Increasing Awareness on openness

Mark van Huystee and Martijn Ouwehand

Keywords: Open sketching, open connections, open science, crossing boundaries, interdisciplinaire

In 2016 TU Delft started a university wide Open Science program, aiming to provide an umbrella for open education, open research, open data, open access publications and open source software. In

many, perhaps most cases, the people involved for each of these contexts is or could be the same: scientists/teachers at our university. The foundations in which these contexts are based is the same (i.e. a culture of sharing, building upon the efforts and outputs of others).

Still we see that each context is approached separately. Various aspects are only utilized or tackled within its specific context (among others: tools and methods used, opportunities and challenges experienced, lessons learned, output produced and required support). Even though we believe translations of these aspects to other open contexts can be beneficial to people and add to the further development of an open culture in our university, they are somehow not easily transferred to other contexts.

In 2017 we initiated activities to increase awareness on openness and support the development of a more open culture (results of these activities can be viewed at <http://opensketching.weblog.tudelft.nl>) and <http://www.open.tudelft.nl/year-of-open/calendar/>)

Based on the results of these context specific activities we took a second step to get to practical suggestions on how to translate the aspects mentioned to other contexts.

At OE Global, within the theme ‘open connections’ we would like to offer an interactive poster session to demonstrate the results of the activities we organised in 2017, share conclusions based on these activities; and challenge OE Global participants to build forth on our conclusions.

This way we aim to inspire OE Global participants about approaches to increase awareness of openness independent of the context it is applied to, and contribute to active discussions during the OE Global 2018 conference on the topic of open connections.

Beyond Open Connections: Leveraging Information Literacy to Increase Impact of Open Education

Michelle Reed and Billy Meinke

Keywords: Information Literacy, Open Educational Resources, Professional Development

For over a century, academic librarians in the United States have provided instruction designed to help patrons effectively navigate and use the resources and services provided by the library. Today we refer to this type of learning experience in terms of “information literacy.” As digitization has shaped the ways that we access and share information, so, too, has information literacy evolved to represent a more nuanced relationship between the people who create and consume information and the systems we use to communicate in a networked world. In January 2016, the Association of College and Research Libraries (ACRL) adopted a new Framework for Information Literacy for Higher Education, which transitioned librarians from a skills-based approach to teaching and learning to a conceptual one. Though the language in the Framework is student-centric, as are the information literacy programs that operate out of academic libraries, we argue that the knowledge practices and dispositions represented in the document apply to educators as much as they do to the students we serve—particularly in the context of open education. With its heavy focus on copyright and licensing, outreach and education about open educational resources (OER) provide a perfect opportunity to

explore how concepts of information literacy can guide our work with faculty, staff, and administrators who are new to open education or who have fallen prey to misinformation about OER. Additionally, though the term “information literacy” grew from libraries, we acknowledge that librarians do not fully own the responsibility of deepening our communities’ understanding of the information ecosystem. In this presentation, a librarian and an instructional designer discuss how information literacy concepts can inform how we support open education and how we leverage existing information literacy programs to broaden the impact of our work.

Full Paper: <http://resolver.tudelft.nl/uuid:d9eb6126-74db-4aa9-b447-3035f27b118a>

Using Open Source Software to Create an OER Platform for Dynamic Textbooks

Robert Petry

Keywords: open source software, computer uses in education, electronic textbooks, OER development

Dynamics textbooks can be created by integrating links to ancillary resources directly into conventional electronic versions of open textbooks. When selected these filesystem links can execute open source software that is run locally on the reading device, thereby mitigating many of the limitations of web-based OER. Effective deployment of such dynamic textbooks requires the development of an open source software platform into which they are integrated. Two approaches are evaluated. Live Linux distributions can be deployed on conventional desktop/notebook computer hardware, either booted directly off USB flash drives or run within a virtual machine. Considerations for such deployment are evaluated. Alternatively, the rise of inexpensive yet powerful system on a chip (SoC) computers presents a further mechanism for deploying an open source software platform to support textbooks, namely the circulation of inexpensive (under USD\$40) computers to students with a preconfigured open source software distribution. The current capabilities and usage of such a device are evaluated. Finally, conventional open source software package management systems can be used to deploy dynamic textbooks on such platforms as well as the open source software tools required to customize the textbooks. Ultimately the development of an open source software platform into which open education resources are integrated ensures that control resides where it belongs, with educational institutions, instructors, and students.

Influences from the Year of Open

Susan Huggins

Keywords: open education, open perspective, collaboration

During 2017, the Year of Open moved quickly from simply being an avenue to recognize significant open education milestones to becoming a year-long event to bring awareness to all things open.

The Year of Open is a global focus on open processes, systems, and tools, created through collaborative approaches, that enhance our education, businesses, governments, and organizations. At its core, open is a mindset about the way we should meet collective needs and address challenges. It means taking a participative and engaging approach, whether to education, government, business

or other areas of daily life. In its practical applications, open is about shared efforts and values to enhance people's opportunities, understanding and experiences.

During the Year of Open, we captured and displayed efforts that increased participation and the understanding of how open contributes to making things better across the globe. In this session, I will share the highlights from 2017, inviting the contributors to speak about their Year of Open experience and what it meant to them. I will also share and invite others to contribute to the 2018 Year of Open.

Connecting the dots: linking Open Access and Open Educational Practices to enhance Open Educational Resources and Repositories adoption among Higher Education Institutions

Virginia Rodés, Regina Motz, Patricia Diaz, Ada Czerwonogora, Anyhelina Suárez and Magela Cabrera

Keywords: Open Educational Resources, Open Practices, Open Repositories

The Interdisciplinary Nucleus of Open and Accessible Educational Resources (OER Nucleus) of the University of the Republic (UdelaR) in Uruguay, integrates the open practice of research groups from different fields combined with the participation of civil society organizations, educational institutions and governmental sector. The adoption of Open Education strategies, and in particular OER adoption, requires actions that contribute to change educational practices, as well as the development of infrastructures that support OER's life cycle. One of the OER Nucleus research lines integrates information and communication technologies (ICT) with teacher training, towards an improvement in the use and collaborative creation of Open and Accessible Educational Resources and Open Repositories. This paper presents preliminary results of the actions carried out in this line, providing substantive evidence for the development of a sustainable OER Repository and strategies for OER adoption at the university. The convergence between Open Access and OER repositories is analyzed, as well as the requirements for adapting institutional repositories for the implementation of OER collections. Finally, future strategies for the adoption are presented, based on the development of Open Practices.

Full Paper: <http://resolver.tudelft.nl/uuid:6c361f43-1879-463b-884d-e2a951b40ef8>

Open Education Research

Open Innovation on Tour: Bringing Open Textbooks to a UK Audience

Beck Pitt, Robert Farrow, Beatriz de Los Arcos and Vivien Rolfe

Keywords: Open Textbooks, Innovation, OER, Adoption, Adaptation, UK, Europe

Textbook costs represent a considerable barrier to participation in education both in the US and elsewhere around the world. With the cost of textbooks rising over 800% in the past 40 years [1] and US student loan debt currently standing at \$1.4 trillion, [2] the drive to mainstream and strategically embed the use of open educational resources (OER) such as open textbooks has saved students in the United States millions of dollars whilst increasing

engagement in educational opportunities. Students in the UK face similar challenges: student loan debt now stands at more than £100billion [3] whilst the average cost of books and equipment per academic year is around £1000 [4].

The Hewlett Foundation funded UK open textbook project (UKOpenTextbooks.org) involving UK HEI's The Open University (UK), University of the West of England (UWE) working in collaboration with WonkHE, OpenStax (based at Rice University, Houston, TX, USA) and Open Textbook Library (at the University of Minnesota, MN, USA) have joined efforts over 2017-18 to examine the feasibility of different open textbook adoption approaches in the UK Higher Education context.

In this presentation we will share the outcomes of the UK Open Textbook project to date. From summer 2017 onwards a number of open textbook workshops based on the Open Textbook Library's methodology, and conference exhibitions and poster presentations to raise awareness of OpenStax materials were conducted across the UK and Ireland. We will report on the current levels of awareness of open textbooks, the outcome of the two approaches, any changes made to the models and a report on known adoption numbers. We will also present a number of case study examples and make a series of recommendations regarding next steps and the potential mainstreaming of open textbooks in an European context.

1: <https://www.ft.com/content/e7aed422-16c4-11e6-b197-a4af20d5575e>

2: <https://www.ft.com/content/a272ee4c-1b83-11e7-bcac-6d03d067f81f>

3: <http://www.bbc.co.uk/news/education-40511184>

4: <https://www.nus.org.uk/en/news/81-per-cent-of-students-want-textbooks-included-in-tuition-fees/>

Open Education with OER (OPEN EDUCATIONAL RESOURCES) Ecosystem

Carmelo Branimir España Villegas and Manuel Caeiro Rodriguez

Keywords: Open Educational Resources, OER Ecosystem, Innovation Educative, Adoption OER, Information and Communication Technologies

Nowadays, Information and Communication Technologies are becoming necessary in all types of organizations. That common occurrence makes it possible for people to be integrated into digital environments that require skills and constant updating. This man - technology relationship, makes the concept of Ecosystem to be adopted into educational technological field. Open education, e-learning, sharing open source or open source applications, open access research and open educational resources are becoming a worldwide trend. In this article we establish the relationship between Ecosystems, Open Education and OER (Open Educational Resources). We describe web initiatives to represent the OER Ecosystem and we present the InnovaREA model by using TAM (Technology Acceptance Model) as a basis. This proposal will be a methodological contribution what will help to improve the adaptation of the open education model through the OER ecosystem.

Full Paper: <http://resolver.tudelft.nl/uuid:e3064bbb-5bb2-4fb6-a67e-8157bce0c515>

Exploring Open Educational Resources, Open Pedagogy and Teachers' Trust

Constance Blomgren

Keywords: Trust, Open Pedagogy, OER awareness, phenomenology of Open Pedagogy

Within Canadian K-12 education, the nascent movement toward OER use and practices continues to develop within various pockets throughout the country. Unlike the growth of OER at higher education, for the Canadian K-12 system unique OER complications arise with which school authorities at all levels must wrestle, in part due to provincial authority over this level of education, the role of information privacy concerns for minors, and the powerful legacy of educational publishers dominating the supply of resources for K-12. Despite these complications, OER and an Open Pedagogy are developing within K-12 classrooms although practitioners may not initially identify their educational practices as part of an Open Pedagogy. This lack of acknowledgement of their open practice speaks to the need for further OER awareness within the field by all levels of educators. Albeit nascent OER users, educators practice to some degree aspects of the eight attributes of an Open Pedagogy (Hegarty, 2015) and it is through their experiences of teaching that they explore and discuss their perceptions of OER and the complicated implications that accompany the use of and support for K-12 OER. This paper provides the context for a proposed research study whereby practicing K-12 teachers as part of their graduate studies, participated in online discussion forums that examined OER awareness, use and issues. Using an interpretative phenomenological analysis will be justified to examine the eight attributes of an Open Pedagogy with a deeper examination of the attribute of Openness, Trust and People. This presentation examines the research in process with respect to the role of trust within an Open Pedagogy.

Full Paper: <http://resolver.tudelft.nl/uuid:629a1d76-0c46-44d1-baeb-da74f2ccefba>

Investigation into reuse of OER for synchronous online language teaching

Helene Pulker

Keywords: Open Educational Resources, Online language teaching, Reflective practitioners

One significant development that has recently come to disrupt teaching practices is the emergence of Open Educational Resources (OER). In the last 15-20 years, researchers have mainly focused on the creation, reuse and sharing of OER. However, little attention has been given to what users do with the resources in their classroom and to date, there is scant evidence of OER reuse impacting on teaching practices. This study examines the process that a group of online synchronous language teachers undergo while adapting and repurposing digital resources. The research participants are part-time language teachers with a range of experiences and cultural backgrounds, who teach online across a range of languages and levels at the Open University, a distance learning Higher Education institution in the UK. Data were collected and analysed within a constructivist grounded theory methodology. The experience of teachers' reuse of OER was explored via seventeen semi-structured interviews. Consistent with a grounded theory approach, conceptual categories for

the analysis of data were allowed to emerge, rather than initially driven by a theoretical framework. Results can be initially summarised as follows:

(1) As in previous findings about OER reuse in language teaching, users select resources they can adapt to suit their teaching styles and accommodate their students' needs; at the same time, teachers are hesitant to share their adapted resources, deemed of no value to anybody else.

(2) OER reuse promotes self-reflection and can play a significant role in teachers' development as online educators; however, findings also challenge the assumption that teachers work together in communities of practice and develop open educational practices as a result of working with OER.

(3) OER reuse support teachers' development of technical online skills but not necessarily resulting in changes in online teaching methodologies or beliefs.

Degrees of social inclusion: Open educational practices and resources in the Global South

Henry Trotter and Cheryl Hodgkinson-Williams

Keywords: social inclusion, open educational resources, open educational practices, access, participation, empowerment, Global South

This presentation explores the question: whether, why, and how do OEP and OER contribute to the social inclusion of underserved communities in the Global South by widening access to education, encouraging educational participation, and fostering empowerment of educators and learners? Using a conceptual framework proposed by Gidley, Hampson, Wheeler and Bereded-Samuel (2010) – which posits that social inclusion “can be understood as pertaining to a nested schema regarding degrees of inclusion” (p.2) comprised of access (the narrowest interpretation), participation (a broader interpretation) and empowerment (the widest interpretation) – the presentation answers this question by highlighting findings from the Research on Open Educational Resources for Development (ROER4D) project, whose research focuses on OEP and OER activities in three regions of the Global South: South America, Sub-Saharan Africa and Asia. ROER4D consists of 18 sub-projects with more than 100 participating researchers and research associates in Afghanistan, Brazil, Chile, Colombia, Ghana, India, Indonesia, Kenya, Malaysia, Mauritius, Mongolia, Pakistan, the Philippines, Somalia, South Africa, Sri Lanka, Tanzania, Uganda, Uruguay, Zambia and Zimbabwe.

OER stigma: its contributing factors and impact on the open movement

Jasmine Roberts

Keywords: Faculty perception of OER, OER adoption, Barriers to OER adoption

The open education movement continues to make strides in the higher education. There is an increasing amount of faculty who have considered authoring and/or adopting open educational resources to enhance their students' learning experiences. Yet, there are still pervasive barriers that prevent a larger number of faculty from adopting OER. One particularly challenging barrier is the stigmatization of OER. Some faculty assign negative attributes to OER including inferiority to traditional resources and lacking scholarly-inquiry

(Belikov & Bodily, 2016). Furthermore, the notion of “open” being “free with permissions” causes some faculty to doubt the quality and efficacy of OER, although there is a growing body of research that states otherwise (Allen & Seaman, 2014; Hilton, 2016). This and more could ultimately contribute to the stigmatization of OER, slowing the efforts of open education advocates. Using Goffman’s theory of social stigma as a model, this presentation seeks to address the contributing factors of OER stigma and carefully examines what systems maintain this particular barrier to OER adoption. While there are numerous studies that document perceptual obstacles to OER adoption, none examine how stigma specifically contributes to the reluctance among faculty to adopt OER and accept open materials as serious scholarly content. The presentation will include coded data of open-ended responses and interviews from faculty and department heads who are not interested in using OER in the classroom. The data will also speak to the challenges of creating cultural change in various departments who have declined to use OER. The audience will learn about a more nuanced approach in considering OER stigma in higher education institutions and, more importantly, what open education advocates can realistically do to overcome this barrier. The overall goal is to motivate open education professionals to create concrete strategies to address and reduce social stigma toward OER among faculty.

Increasing Use of OER in Ontario Using a Sensemaking Approach

Jenni Hayman

Keywords: OER Research, Sensemaking, OER Canada

In this 30-minute presentation session, Jenni Hayman will describe her doctoral action research to date. The purpose of her research is to increase the use of OER in Ontario, Canada by designing and delivering an educator awareness and support strategy in partnership with college and university staff. She is currently at the end of data collection and will have a variety of preliminary analyses and findings. Jenni will also describe her research design and her application of Weick, Sutcliffe, and Obstfeld’s (2005) organizational “Sensemaking” model influencing her interactions with learners, educators, and administrators. Session attendees will be encouraged to share their own successes and challenges related to increasing use of OER in their contexts.

Differentiation in Access to, and the Use and Sharing of (Open) Educational Resources among Students and Lecturers at Public and Private Ghanaian Universities

Judith Pete

Keywords: Educational Resources, Open Educational Resources (OER), ICT, differentiation, access, use, sharing, Ghanaian universities, students, lecturers

This study is part of a larger project on digital and OER differentiation in three regions around the world: Sub-Saharan Africa, South America, and Southeast Asia. This paper is second in a series of the three Sub-Saharan African countries, and deals with Ghana (the other two being Kenya and South Africa). We report on a large-scale quantitative survey study at 2 public and 2 private Ghanaian universities, where students and lecturers have been randomly sampled. The empirical data have been collected from 818 students with a 26-item questionnaire and from 38 lecturers with a 30-item questionnaire. Several differentiations

have become manifest, the major ones being: (i) there are digital inequalities between lecturers and students where the lecturers rate themselves more digitally proficient than their students, while you cannot conclude in this respect that either the public or the private universities are doing better; (ii) in the spectrum of processing of educational resources (ER) we see attempts of both lecturers and students to indeed create and share educational resources, no matter whether this is at public or at private universities; and (iii) completely in line with our previous Kenya study, also in Ghana lecturers and students are not really aware of the concept of open educational resources (OER) and the associated global open licensing approach, even though they create and share educational resources (ER).

Learning from the past: Development of open and distance education research over time

Katy Jordan, Vivien Rolfe, Martin Weller and Irwin Devries

Keywords: history of open learning research, distance education, citation network analysis

Much recent research in open and distance education references literature that was produced primarily over the past decade. While the field of open education continues to evolve and branch out, many of its themes bear similarities to earlier research from the late 1960s and developing through to the '80s and beyond. As indicated by a lack of earlier references in current literature, there appears to be a low level of awareness of this earlier body of research, let alone how it may connect to recent scholarship.

There is potentially much to be gained from a deeper understanding of how open and distance education research developed over this time period. In addition to studies into practice, an extensive body of theory in open and distance education emerged over this time (Zawacki and Anderson, 2014), which can add valuable insights for current researchers and practitioners. In addition, researchers and graduate students will be able to enrich their studies by tracing ideas, connections, biases, discontinuities and patterns gleaned from the analysis of earlier studies. Further, current discourses about the meaning of openness in education may benefit from an understanding of historical patterns of, and problems in, open and distance education research.

The purpose of this study is to enrich current scholarship by exploring frequently cited publications, authors and themes found in open and distance education research published from the 1960s onward. Using a network citation analysis methodology, this work builds on a systematic approach that identified a corpus of historical open education articles from the 1970s which are almost entirely overlooked in the literature today (Rolfe, 2016). It is intended that this study will provide an accessible starting point for researchers to deepen their understanding and further explore and incorporate earlier open and distance education research into their work.

Full Paper: <http://dx.doi.org/10.5944/openpraxis.10.2.822>

Evidence of Impact: OER impact on student success

Lisa Young

Keywords: OER, Evidence of Impact, Research

The Maricopa Community Colleges located in Phoenix, Arizona, USA has embarked on a research study to ascertain the impact of the OER program, titled the Maricopa Millions project. The study explores research questions dealing with student success, access to education, access to course materials, and method of delivery of OER on student success. The study evaluates a number of metrics including student success, financial aid eligibility, number of classes taken, enrollment in additional OER courses, etc. The research study will examine data from Fall 2013 through Fall 2017 in OER mathematics classes and the 21 OER courses funded by the Maricopa Millions project, as well as explore qualitative data obtained by student and faculty surveys and focus groups.

The road to MOOC-learning is paved with good intentions, but what happens to them along the way?

Maartje Henderikx, Karel Kreijns and Marco Kalz

Keywords: Open education, MOOCs, Online learning, Intention-behaviour, dropout, success

Currently success measurement of MOOCs is certificate- and completion-centric and fails to take student intention into account. This study builds on a theoretically grounded model for measuring success and dropout in MOOCs by Henderikx, Kreijns and Kalz (2017a, 2017b). This model redefines success in MOOCs as all MOOC-takers who achieve their individually intended goals or more, are considered successful. Yet, as some MOOC-takers reach their initial intentions and others do not, it is important to consider the process of the translation of the individual intention into actual behaviour. In this presentation, we present a model which explains what may happen when these individual intentions are acted out. It provides insight into the dynamics of the intention-behaviour process on an individual level and therefore into possible reasons that can cause the intention-behaviour gap. This, in turn, can support MOOC-providers and designers in determining whether adaptations to course design are indeed justified.

Experiential learning in design and social sciences: dialogue, reflection and social learning in the city

Maria Patsarika and Scott Townsend

Keywords: experiential learning, social learning, interdisciplinary collaboration, online educational resources, open sharing

The paper highlights the opportunities for social learning, dialogue and critical reflection offered for students, local stakeholders as well as ourselves as educators within a service learning framework that involved traditional and distanced educational experiences. The research project 'Arcades in Thessaloniki (Greece): memory and emerging entrepreneurialism' brought together social science and graphic design students from two universities in Greece and the US. Based on a Deweyan understanding of experiential learning as experimental thought and activity involving interaction between humans, the environment and its artifacts (Miettinen 2000), the collaboration allowed us to examine

interdisciplinary perspectives and reflect on pedagogical issues inherent in both disciplines. The process required a situational and participatory outlook to research (Wildemeersch et al. 1998) and involved openness to the role of the stakeholders, who were seen as knowledgeable and resourceful in solving problems (Manzini 2015) while understanding the inherent complex (aka ‘wicked’) problems related to sustainable development (Rittel and Webber 1973). Using a focused ethnographic case study approach, social science students explored place, identity, and entrepreneurial strategies of diverse stakeholders at Stoa Malakopi, a historically significant arcade. Distanced online participation involved working with written, visual, sound and other time-based media, such as video, but additionally had the added complexity of translation, especially in regards to social science students conveying interpretation methods and findings to an English language cohort, who then developed communicative visual design artifacts as part of the engagement platform in Greece. These instructional experiences evidence a potential for online educational resources and digital assets as common reference points that can be shared across different (but allied) disciplines openly. We will overview a matrix of experimental, necessity driven online components in 2017 and outline our tentative instructional plan for 2018, which emphasizes digital resources and a refined pedagogical framework with an emphasis on open sharing.

A qualitative analysis of open textbook reviews authored by higher education faculty and instructors: Insights for open textbook authors, adopters, and publishers.

Merinda McLure and Olga Belikov

Keywords: open textbook reviews, higher education, qualitative analysis

In their comprehensive reviews of existing open textbooks, American higher education faculty and instructors provide evaluative insights into the strengths, weaknesses, curricular alignment, affordances, and limitations of individual, openly-licensed textbooks (“open textbooks”). Reviewers also share suggestions for improving the open textbook in order to benefit students and instructors; describe how they might use the open textbook with students in specific course contexts; compare the open textbook to its commercial counterparts; and offer broader perspectives on open educational resources in higher education. In this presentation, we will explore findings from our recent, qualitative analysis of 963 reviews of open textbooks. Faculty and instructors who are affiliated with American colleges and universities authored these reviews. This work was in association with their participation in educational workshops about open educational resources, were facilitated by the Open Textbook Network. The reviews carry a CC-BY license and are openly accessible alongside the descriptive open textbook records that comprise the Network’s searchable Open Textbook Library. Reviewers followed a standard review format, wherein they addressed the comprehensiveness, accuracy, relevance and longevity, clarity, consistency, modularity, organization, interface, grammar, and cultural relevance of the open textbooks. Through our presentation of our research findings, participants will have the opportunity to consider how reviews of open textbooks may be especially informative for open textbook authors and publishers. Participants will also be able to reflect on why and how open textbook reviews may be of value and interest to students, instructional designers, librarians, academic staff, higher education administrators, and other individuals who support or have

an interest in faculty and instructors' exploration and adoption of open educational resources. We will close this presentation with brief discussion, inviting attendees to share their perspectives on the ways in which open textbook reviews may be of value to them and to their higher education communities.

A social media analysis of open education discourses found on Twitter from 2009 to 2016

Michael Paskevicius, George Veletsianos and Royce Kimmons

Keywords: Open Education, Social Media, Education Discourse, Educational Technology

In recent years, open education has gained significant interest among educational institutions, innovation leaders, and within popular media. In this study, we use Twitter social media data to examine the discourses surrounding openness as well as the people who participate in the discourse around openness. By targeting hashtags related to open education, we gathered the most extensive dataset of historical open education tweets to date ($n = 178,304$ tweets and 23,061 users) and conducted a mixed methods analysis of openness from 2009 to 2016. We find that the movement towards openness in education has a variety of meanings for different people and has evolved significantly over time. Findings show that the diversity of participants has varied somewhat over time and that the discourse has predominantly revolved around open resources, although there are signs that an increase in interest around pedagogy, teaching, and learning is emerging.

Co-creating open textbooks for the professional development of language educators

Naomi Wahls, Chrissi Nerantzi and Alisher Abidjanov

Keywords: OER textbook, OER, Developing Countries, collaborative learning, professional development

This contribution focuses on sharing the open research project "Professional Development through Collaborative Learning and an Open Education Resource (OER) textbook for Language Education" in Uzbekistan. This project is one of the 17 supported globally by the UNESCO programme Open Education for a better world through volunteer mentors.

The project team will share the need for this study and their current thinking regarding the co-creation process of the open textbook for the continuous professional development of language educators based on identified needs and priorities. The team will also discuss their collaborative working practices across three continents, illustrate their initial ideas around the collaborative development activities based on related contemporary research and literature. The team will also review an online pilot and suggest revisions for the next version which will be the first accredited online course in Uzbekistan.

This contribution will be of interest to delegates worldwide with an interest in the adoption of open textbook approaches for the professional development of language educators and educators in a range of disciplines.

Open Textbooks in Theory and Practice: Lessons from California

Natascha Chtena

Keywords: OER, open textbooks, open practices, theories of open, qualitative research, higher education

Few virtues are as celebrated in the contemporary higher-ed landscape as openness. A key strand of the drive to open education is the movement for open educational resources and open textbooks, which suggests that the application of open, permissive licenses to educational resources is a means of widening access to knowledge and educational opportunity, along with increasing cross-institutional collaboration, and spurring pedagogical innovation. The on-the-ground reality of open textbook implementation and use, however, is quite far removed from the 5R framework (Retain, Reuse, Revise, Remix and Redistribute) envisioned by advocates of “open”, and is strongly shaped by unresolved issues and tensions concerning labor structure, institutional characteristics and priorities, as well as technical interoperability and software modularity.

This presentation will draw on 40 interviews conducted with instructors, OER coordinators, students and librarians at community and 4-year undergraduate state colleges across California to discuss institutional, economic, technical and infrastructural barriers to open textbook mainstreaming in the state of California. In addition, I will consider what this distance between the rhetoric and practice of openness means for understanding and defining open textbooks as digital and social objects. One key objective is to raise questions over how we might theorize the nature of open textbooks, their process of development and the practices surrounding them in a way that recognizes their material, local and situated nature. This presentation will be relevant for researchers interested in the philosophy of open education and open education theory more broadly; those interested in the nature and future of “open”; and those who are seeking to better understand the barriers to OER mainstreaming in the US context and beyond.

Australian Teachers’ Experience of Professional Learning through Open Education

Penny Bentley

Keywords: professional learning, open education, adult learning, phenomenography, transformative learning

This study explored Australian K-12 teachers’ experience of professional learning through open education. In this context, open education is associated with resources, tools, practices and culture enabled through open Web technologies. In an attempt to increase student engagement and achievement in STEM subjects, the Australian Government seeks to improve the capacity of teachers and the quality of their STEM teaching, through professional learning. However, professional learning is often perceived by teachers as ineffective and irrelevant to their needs. Since beliefs impact on practice, this was considered an important area to explore in terms of meaning rather than effectiveness. Meaning is central to the field of adult education and, in this study, teachers are viewed as adult learners. Despite professional learning being widely researched, studies from the teacher’s perspective, and the perspective of teachers as adult learners, are limited. Similarly, the concept of open education is widely researched, but limited in the context of K-12 teacher

professional learning. This gap was addressed by asking: what are the qualitatively different ways in which Australian teachers experience open education for professional learning? A phenomenographic approach was used to explore this question. Firstly, demographic data and information regarding teachers' knowledge of open education was collected through an online survey. Secondly, data was collected through semi-structured interviews with 20 Australian primary and secondary teachers involved in STEM education and learning through open education. This study revealed the meaning of professional learning through open education is related to: having autonomy, information, other people, being creative, permeable classrooms, complexity and personal change. This study provides new knowledge about the meaning teachers attribute to professional learning through open education. It also contributes to research into adult learning through exploration of experience, a concept central to transformative learning theory.

Librarians as Open Education Leaders: Responsibilities and Possibilities

Quill West

Keywords: Library, Course design, collaboration, open education

A common claim in open education is that librarians are effective supporters in open education work because their talents for research, organization, and working with students make them natural supporters of faculty designing OER courses. In this presentation we will discuss the results of a study that sought to understand how librarians and faculty interacted with one another through deliberate cooperation in course design. Seventeen faculty-librarian partnerships were awarded \$3000 stipends to cooperate in designing open courses. Each participant kept a weekly journal describing current contributions to the course project. Early findings from analysis of the journals shows that librarians are effective supporters, but careful planning and organization of the projects was very necessary for the collaborations to be successful.

Full Paper: <http://resolver.tudelft.nl/uuid:749d9863-896c-42ce-8702-70911f883ed3>

Open education and open society: Popper, piracy and praxis

Robert Farrow

Keywords: theory, philosophy, open education, open society, Popper, piracy, praxis, critical pedagogy

What is the point of open education? Uncontroversially, we might suggest that it is about widening participation; equalising access to education; and bringing about a fairer society. This is another way of stating that the main concern of open education is a kind of justice. For many social and political philosophers, justice has been understood as the defining goal [τέλος] of society and civilization. But this relationship between open education advocacy and the goal of social transformation remains remarkably underexplored and undertheorized. This presentation will explore this relationship and the idea of openness in contemporary discourses in education and politics. It will examine the use of the concept of openness in educational and political discourse and use the normative concept of an "open society" to explore the relationship between theory and practice in open education.

A Baker's Dozen successful OER implementations

Rory McGreal

Keywords: Open Educational Resources, OER, Impact, Implementation, Benefit, Challenge

This presentation describes reports of 13 OER implementations at higher educational institutions in Canada, the USA and five other countries. All implementations have resulted in significant cost savings for students and/or institutions. There was no general consensus on any other benefit or even challenges experienced by the different institutions. Nevertheless, there were some significant commonalities that will be described in this paper, which describes the opportunity, the innovations, benefits and challenges as well as the future potential for OER in their respective institutions.

Assessing the impact of a global health MOOC/OER

Sally Parsley, Astrid Leck and Daksha Patel

Keywords: Global health education, Impact, Massive Open Online Courses, Open Educational Resources, Professional development, Health worker training

Globally, 285 million people are visually impaired, 90% in low and middle income countries (LMIC), 80% from avoidable causes. LMIC settings face a shortfall in eye health specialists, training institutions and faculty. Knowledge and skills to deliver comprehensive health services and strengthen eye health systems is essential to practical functioning of the eye team but is often not included in clinical curricula.

Massive Open Online Courses (MOOCs) are free to access online courses. Open Educational Resources (OER) provide easily downloadable, shareable, adaptable content. Global Blindness is the world's first public health eye care MOOC. Over 6 weeks it covers the essentials of planning and managing eye care services. OER content enables further local educational transformation. Global eye care experts contribute to content development and mentor participants.

Course first ran on the FutureLearn platform in 2015. Analytics data, pre- and post-course survey results indicated that health workers in LMICs successfully engaged with it:

- 3,541 joiners, 2,166 active participants
- 69% from LMICs, 81% working in health/social care
- 47% posted comments, 34% completed $\geq 50\%$, 20% completed $\geq 90\%$
- 96% satisfied/very satisfied
- 206 statements purchased.

After 1 year, online survey sent to assess:

- Did participation lead to career and educational benefits?
- Were OER used to support teaching and learning?
- What impact did course have on health provider practice?

Response rate 3.9%, 82% lived in LMIC, 94% worked in eye care. 88% reported educational benefits; 72% reported career benefits; 85% reported applying their learning; 70% reported challenges in applying learning; 70% reported using OER for teaching and learning. Currently developing a wider impact methodology to explore cycles of immediate, potential, applied, realised or reframing value from engagement with the MOOC/OER for individual

health workers and educators, ophthalmic training institutions, professional bodies and eye care educational landscapes.

A comparison of self-paced and instructor-paced online courses: The interactive effects of course delivery mode and student characteristics

Sara Topolovec

Keywords: self-paced, instructor-paced, delivery mode, online course, MOOCs

Modes of online course delivery are developing and changing rapidly. Lately, an increasing number of online courses are being offered in a self-paced (or a self-paced-approaching) format, which usually means that the course is offered for a longer time and that there is only one due date at the end of the course. This mode of delivery can seem attractive from different perspectives, such as student, teacher, or business perspective. However, despite the growing presence of self-paced courses, little research has been conducted so far into the effectiveness of this delivery mode on student experience and learning. This study explores the effects of the self-paced delivery mode, and its possible interactions with student characteristics on performance. Preliminary findings indicate that success factors of students are similar in self-paced and instructor-paced courses, and that the self-paced format has little effect on students performance. Further research is needed to provide additional insight into advantages and disadvantages of different delivery modes.

Full Paper: <http://resolver.tudelft.nl/uuid:aac0b965-e978-4a52-9cc5-a8e4b975e9e6>

“Kallipos”, the first initiative for producing open academic e-textbooks during the years of crisis in Greece and its sustainable continuation

Stamatina Koutsileou, Dimitrios Kouis and Nikolaos Mitrou

Keywords: Open Educational Resources, open e-textbooks, Repository “Kallipos”, Hellenic Academic Libraries Link’s services exploitation and sustainability

From 2013 onwards, a large-scale pilot project, named “Kallipos”, has been implemented by the Hellenic Academic Libraries Link. The project’s outcome was the creation -by the faculty of the Institutes of Higher Education- of more than 500 hellenic academic e-textbooks freely available (under Creative Commons licenses) through the open access digital repository “Kallipos”. The project’s full-blown objective is the production of more than 3.000 open e-textbooks within the next three years, aiming at changing the paradigm of the Educational Resources in favour of the Open ones (OER). This paper’s purpose is to highlight challenges towards Open Education in Greece, through presenting/analysing the results of two surveys performed at the outskirts of the “Kallipos” project. The first survey was committed among faculty staff-participants in the “Kallipos” project to explore their beliefs about barriers and teaching/learning benefits from OER adoption/use while teaching in the “classroom”, and the support they receive by their Institutes and the Academic Libraries. The second survey addressed university administration staff (Deans of Schools) investigating to what extent the “Kallipos” open textbooks have been adopted in their Schools, their opinion about the project’s usefulness and its further development, and the necessity for undertaking complementary actions, like Print On Demand of a digital course pack. The paper concludes with specific

suggestions for actions that will overcome the identified obstacles and expedite the transition process to a really Open Education and Open Science regime. The surveys' findings can be used by faculty/instructors, students/learners and, above all, by policy makers/educational leaders of public and private institutions/organizations, aiming at the reinforcing actions of promoting the philosophy and the practices of the OER not only within the Higher Education, but also within other levels of education, either formal or non-formal / informal, with a view to the next decade (2020-2030).

Full Paper: <http://resolver.tudelft.nl/uuid:bb8a818b-14d3-4903-9c93-c17264140400>

Breaking the Stigma: Faculty and Student Perceptions and Experiences with OER

Tiffani Reardon

Keywords: Affordable, OER, Perceptions, Experiences, Textbook, Transform

Over the last few years, Affordable Learning Georgia, an initiative of the University System of Georgia, has been releasing Textbook Transformation Grants to promote creation and adoption of Open Educational Resources across USG institutions. Many of the faculty at Kennesaw State University, located just outside Atlanta, Georgia, have taken advantage of these grants to create, revise, remix, and reuse OER in their online, hybrid, and face-to-face courses in place of expensive textbooks. As of October 2017, sixteen teams at KSU had been awarded textbook transformation grants, and those projects have a combined estimated annual impact of \$2.7 million saved among an estimated 7,500 students each year, and counting. This presentation and paper will outline the various open textbooks created, resources gathered, and classes transformed by ALG grants at KSU. It will also explore the student perceptions of these projects based on survey data, grade and withdrawal statistics in comparison to the same classes with expensive textbooks, and faculty perceptions and experiences with their created, reused, and remixed OER within their classes.

Full Paper: <http://resolver.tudelft.nl/uuid:33f0c895-ef52-4548-b369-9d04e2fb32af>

The student as prosumer. Open pedagogy for ICT education.

Tom Langhorst and Lennart de Graaf

Keywords: open pedagogy, educational fit, technical education, intrinsic motivation, Wiley's paradox, Wiley's 5R, 21st century skills

The research's objective was to design and implement a student proactive open pedagogy that would enable students to find and use (open) learning materials needed to explore and apply a self-chosen ICT technology. The course's open pedagogy was designed using the idea of open practice (Ouweland & Schuur, 2017) and the ambition of giving students control over their study, based on insights from studies on intrinsic motivation, like the flow theory (Csikszentmihalyi et al. 2005) and Self Determination Theory (Deci & Ryan, 2002; 2008). The student proactive open pedagogy resulted in a total of 51 self-chosen different ICT technologies being studied and used to create individual applications for which the students found and used over 450 educational resources.

These resources were analyzed on (a) descriptive characteristics, (b) educational fit and (c) reputation and (student) evaluation. The analysis was used to reflect on important findings

from the OER literature such as Wiley's 5R, the Wiley Paradox and educational fit. Results of the reflection were evaluated with six of the participating students during semi-structured interviews, leading to the following conclusions.

The study brought interesting insights in relationship to the OER literature and classical OER challenges.

Due to the fact that in an open student proactive pedagogy the learning content is 'created' by the student and from a student's perspective some of the pitfalls, downsides, conditions and problems described in OER literature still apply but no longer obstruct the pedagogy and are successfully bypassed as a result of the pro-activeness of the students.

Therefore the open student pro-active pedagogy should focus on the student's pro-activeness, the ability to analyze and describe his/her knowledge needs and matching available resources. In other words, a successful open proactive pedagogy largely relies on the development of 21st century skills and not on formal OER requirements and deficits.

Full Paper: <http://resolver.tudelft.nl/uuid:945ca6b6-3884-4047-a58a-ea02e9cd2de6>

Building on Textbook Affordability: A case study in evaluating multi-layered impacts of openness interventions

Urooj Nizami and Adam Shambaugh

Keywords: Open Educational Resources (OER), Assessment, Academic Libraries

This paper reports on a series of interviews conducted with faculty members who participated in Temple University Libraries' Textbook Affordability Project, a library led intervention that seeks to ease the burden of textbook costs for students and their families. Librarians, while recognizing the immediate, material benefit of this project, conducted follow-up interviews with participants in an effort to understand how participation in the Textbook Affordability Project might influence faculty members' attitudes toward open educational resources and openness in higher education more generally. The paper takes an interest in how openness interventions, like this project, might promote a cultural shift towards openness across the institution and how these results may offer a model for other academic libraries seeking to promote multi-layered impacts through their openness initiatives. We use the content of interviews with faculty to determine the extent to which the Textbook Affordability Project has been effective in fostering a culture of openness on our campus. We argue that initiatives with the immediate goal of alleviating the burden of textbook costs for students can have peripheral, long-range impacts on institutional attitudes toward openness in an academic community. These peripheral impacts should be investigated to harness untapped potential to grow openness initiatives on university campuses. Too often academic libraries implement innovative projects without pursuing adequate evaluation and assessment. We argue that conducting this assessment helps reveal the peripheral impacts of projects, allowing for a snowball effect to develop in promoting conceptual frameworks that build off of one another as constituencies become acquainted to openness by seeing its practical advantages. We hope that this case study might offer both a practical and theoretical orientation for rethinking the interconnectivity of the promotion, implementation and evaluation of openness initiatives in our field.

Professional Development Guidelines for OER: a case study of Brazilian fundamental education public school teachers

Viviane Vladimirschi and Viviane Vladimirschi

Keywords: OER, ICTs, K-12, Brazil, fundamental education, public schools, Teacher professional development, guidelines

K-12 public education in Brazil suffers from little investment in teacher training resulting in lack of support to foster pedagogical change through use of digital technological resources for pedagogical use. The use of Open Educational Resources (OER) in the K-12 public education sector enables teachers to have access to a wide variety of free sources and new ideas for planning and enhancing their lessons and affords teachers the possibility to improve their knowledge and skills in information and communication technologies (ICTs). There has been little empirical research on teachers' use of OER in K-12. This case study addresses that gap, exploring what could be a set of guidelines for a teacher professional development program (TPD) on OER in Brazilian K-12 public schools by means of the development and delivery of a face-to-face OER professional development program (ODC). The study was conducted at one Brazilian fundamental education public school; quantitative data assessed the intention of the participants of the study to adopt and use OER; qualitative data identified barriers, learning needs and assessed learning outcomes upon completion of the ODC. The findings of this study suggest that ongoing facilitator support, practical, hands-on TPD can enhance teachers' engagement and confidence with OER. This type of TPD holds the potential to provide teachers with the necessary support for scaffolding engagement and learning in order to progressively lead them to empowerment and provide them with the autonomy and confidence required to learn about OER. Findings also indicate that school administrations' awareness and engagement with OER is imperative to provide the necessary support. The study proposes a set of guidelines for TPD in OER for stakeholders who wish to promote the adoption and use of OER in the Brazilian public fundamental education system as well as in other K-12 education systems of developing countries.

Innovation through opening traditional practices

Ana-Dil Türkçe: A Design for Open and Distance Turkish Teaching

Bilge Çam Aktaş, Köksal Büyük and Haluk Ünal

Keywords: Turkish Education as a Foreign Language, distance education, open course material

The purpose of this study is to design an open course in the field of Turkish Education as a Foreign Language that can be used by everyone as an open course material with a plain and simple interface, through which participants can learn Turkish in their own pace and under their own control in a thematic and fun way with topics from real life.

With the learning environment developed as a part of this research, through completely distance education, a free learning environment is constituted for approximately 90,000 foreign students who have come to Turkey for educational purposes and for approximately 3.1 million refugees in Turkey who cannot afford to participate in a Turkish teaching program. With this service, the participation process of the social, cultural and economic life and employment of disadvantaged groups is aimed to be accelerated; and the quality of this participation increased by learning Turkish. Additionally, it is targeted at all people around the world who want to learn Turkish language and culture and benefit from the learning environments developed. The existence of instructions structured in English, Russian and Arabic is expected to expand the audience especially at lower levels.

The research was constituted as a design based research model. In the research, first, learning outcomes for A1 and A2 levels have been written based upon European Language Certificate Program Criteria. A spirally structured content arrangement has been made to serve to these outcomes, and e-learning materials have been designed and produced to transmit the content to the participants, which are e-courses, animated video, dialogues, games and grammar video lessons all of which aim to improve students' listening and reading comprehension, check their own learning and have fun.

How to make MOOCs better for specific target groups and developing countries?

Christian M. Stracke, Rocael Hernández, Carlos Delgado Kloos, María Del Mar Pérez Sanagustín and Antonio Moreira Teixeira

Keywords: Open Education, MOOCs, target groups, MOOC Maker, MOOQ

This presentation addresses the theme "Innovation through opening traditional practices" to introduce and adapt Massive Open Online Courses (MOOCs) for better learning quality. It is organized by the two European projects MOOC Maker (www.mooc-maker.org) and MOOQ (www.mooc-quality.eu): Both initiatives are focusing on the quality of MOOCs and their improvement by addressing specific target groups and needs.

Leading question is: "How to make MOOCs better for specific target groups and developing countries?" The presentation will discuss how the future development and design of MOOCs can aim better at the needs and preferences of specific target groups, e.g. from rural areas

or formal school education. In addition the presenters from Europe and Latin America will have a special focus on the opportunities how MOOCs be used in developing countries to improve formal and non-formal learning and education and to contribute to achieve the Sustainable Development Goals (SDG) set by the United Nations.

Main goals are the sharing and exchange of experiences and their discussion with the whole audience: Therefore all participants are invited and encouraged to join and contribute to the debate.

This presentation is a first collaboration between the two European research projects MOOC Maker and MOOQ.

The panel combines experts and organizations from Latin America and Europe:

Rocael Hernández, Guatemala, Carlos Delgado Kloos, Spain, María del Mar Pérez

Sanagustín, Chile, Christian M. Stracke, the Netherlands, and António Teixeira, Portugal.

Intended audience are all experts, practitioners and novices sharing interest in the improvement of MOOCs

Full Paper: <http://resolver.tudelft.nl/uuid:f7b38f45-8167-4dd3-a295-e2ddaba45566>

The potential for OER in undergraduate aviation management degrees in Australia

Darren Ellis and Carina Bossu

Keywords: OER, OER in aviation, OER in aviation management, discipline repository, Australian higher education, aviation tertiary education

This paper assesses the potential for open educational resources (OER) in undergraduate aviation management degree programs in Australia. To date, traditional approaches to learning and teaching have dominated undergraduate aviation studies in Australia. This is not surprising given the technical and specialised focus required for pilot training. However, as undergraduate aviation degree programs have expanded to now include a growing focus on aviation management, the need and potential of OER is clear. The global aviation industry has a long history of cooperation and sharing when it comes to technical and safety matters; less so on economic and commercial issues. This latter reality has generated a business culture for many aviation companies, including airlines, of commercial protectionism and targeted strategic cooperation. This approach and mentality arguably extends to aviation focused higher education where competition for students, staff and exclusive industry and educational partnerships tend to work against a spirit and practice of wider sharing and openness. In Australia, the aviation higher education space is relatively small with only half a dozen universities offering degrees at the bachelor level. Within this context, the potential for OER is enormous. OER-enhanced learning and teaching in aviation would help to extend educational frontiers, and connect hitherto isolated and inward looking aviation programs. This paper explores existing OER developments and opportunities for undergraduate students in aviation management programs globally, and more specifically in Australia. It also discusses the potential to enhance learning and teaching in this space. Key recommendations are given covering greater cross-institutional collaboration and openness among aviation disciplines in Australia, at both institutional and educator levels.

Trust me I'm a MOOC: Trust and Credibility in Informal Online Learning

Eamon Costello, James Brunton, Mark Brown and Laurence Daly

Keywords: MOOCs, Trust, Credibility, Student Satisfaction, Online Learning

This research sought to conduct an exploratory analysis of the trust of MOOC learners in institutions, platforms, and those involved in the teaching and delivery of MOOCs they have taken. We aimed to determine what might influence learners' development or otherwise of trust in MOOCs and whether this might influence their subsequent intentions including towards the providers of the MOOC. Hence we sought to examine whether any increases in perceived source credibility of lead to an increase in the trusting beliefs in MOOCs for the learner. Moreover, we examined whether any increase in learner's trusting beliefs could lead to increases in their future trusting intentions. This has obvious implications for whether a student might persist on a learning journey and in the longer term decide to embark on further study pathways such as for paid credentials. Following a test of these two hypotheses we sought to determine the most significant underlying drivers that learners reported as affecting their trust in learner the MOOCs they undertook. Based on concepts of trust from the research literature we developed a survey instrument which was administer to MOOC learners. Following an analysis of responses ($n = 76$) we determined a possible positive correlation between source credibility in a MOOC and trust in MOOCs. Furthermore there was determined to be a potential correlation between trust in MOOCs and professed future intentions of MOOC learners. Lastly we determined several factors of MOOC trust drivers, as reported by respondents. This study has potential implications for MOOC stakeholders such as teachers, designers and platform developers, in helping signpost areas where MOOC learners may have have positive and negative experiences with MOOCs, as these can in turn influence their future relationship with MOOCs and MOOC providers.

Open Textbooks: Promotion and Support by Academic Libraries

Gary White

Keywords: Open Educational Resources, Open Source Textbooks, Textbook Affordability

This presentation will use a case study approach to demonstrate various ways that academic libraries can introduce, promote and support the adoption of open source textbooks at their institutions. The University of Maryland Libraries have taken a leadership role on campus in working with students to address both textbook affordability and open source textbook adoption. This presentation will cover the history of the library's role in promoting open source materials, working with student government and the library's student advisory group to address textbook affordability, and the library's leadership role in promoting and supporting open source textbooks on campus. The presentation will offer practical advice for other libraries seeking to use and promote open source textbooks on their campuses.

Collaborative writing of an open living handbook on Open Science training with 14 international experts invited to a ‘book sprint’

Helene Brinken, Dr. Martin Mehlberg and Lambert Heller

Keywords: open science training, living book, book sprint, open textbook

In February 2018, FOSTER Plus and TIB organized a book sprint in order to author an Open Science training handbook collaboratively. For one week, we brought together 14 experienced Open Science educators in Hanover to answer a number of questions: What works, what doesn't? How can you make the most of limited resources? With their help, we are creating a handbook that equips future trainers with methods, instructions, exemplary training outlines and inspiration for their own trainings. The handbook provides advocates across the globe with practical know-how to deliver Open Science principles to researchers, support staff, and research administrators. It is a living resource that is online accessible under the terms of CC0 1.0 license. The Open Science community was and will be able to review, comment and add other contributions such as discipline-specific case studies or translations after the book sprint. This is how we ensure the relevance of the handbook for a broad audience.

In our ultimate goal to establish a robust, highly reusable resource on a certain topic in a short matter of time, we utilize two of the most prominent concepts and methods from the area of collaborative book writing: Book sprints and living books. Although the opportunities of both became apparent in the last few years, they still bear challenges, especially when applied to a loosely coupled, international audience of authors. We scrutinize our experiences all along the process, from book preparation, through facilitating the book sprint itself, up to reuse and enhancement of the book with different groups in different scenarios. Hereby, we hope to encourage and equip Open Education practitioners all over the world to make use of new open methods in the realm of collaborative book writing, like book sprints and maintaining open books, for their respective projects.

OER Librarians supporting open education in Europe

Hilde van Wijngaarden, June Hedges, Jan Neumann and Hanne Munch Kristiansen

Keywords: OER librarian, repository, discovery, copyright

University libraries are becoming more involved in supporting open education. And when they do, it becomes clear that they can play an important role in taking open education to the next level. Librarians support and facilitate practical workflows for creation, management and re-use of educational materials, discovery of OER and advise on copyright issues. Being involved in promoting open access and open science, librarians can make the connection between different developments, policies and strategies to stimulate open publishing of educational materials in the way that open access has been put on the European strategic agenda.

In the US, OER librarians have taken up this work, in Europe, they have not yet organised themselves in this way. This panel presents four university librarians that have started to organise support for open education at their institutions and they will share developments in the UK, Denmark, Germany and the Netherlands with the audience.

Understanding Learning in Relation to Self-Regulation Using Clickstream Data from a Massive Open Online Course

Jacqueline Wong, Mohammad Khalil, Martine Baars, Björn B. de Koning and Fred Paas

Keywords: Massive open online courses (MOOCs), online learning, self-regulated learning, clickstream data, learning analytics

Advancement in technology has increased access to education, most notably, through Massive Open Online Courses (MOOCs). Given the low completion rates in MOOCs, it appears that opening access to education is insufficient for learning when learners do not have the necessary skills to successfully learn. The lack of external regulation in MOOCs due to the physical distance between learners and instructors means that learners have to rely a lot more on themselves to regulate their learning in order to successfully complete the course. However, most learners have difficulties with self-regulated learning (SRL). Therefore, it is crucial to examine how SRL can be supported in MOOCs. To our knowledge, the current study is the first to examine the use of videos to prompt SRL in MOOCs. When learners interact with any of the course items, the studied MOOC provider logs these interactions as clickstream data. By analyzing the clickstream data, we aim to understand how learners learn and self-regulate their learning when provided with videos to prompt SRL. Data presented in the current paper form part of a larger study in which data are being collected from multiple MOOCs. Results from the MOOC where data have been collected show that learners who viewed the SRL-prompt videos completed more course activities compared to learners who did not view the SRL-prompt videos. In addition, the analysis of sequential pattern of transition shows that learners who viewed the SRL-prompt videos made more progress in the MOOC and the SRL-prompt video is featured in most of the sequences. However, further analysis and development of the algorithm used to analyze clickstream data in this study is needed to better understand how learners learn and model the SRL process in MOOCs. Nonetheless, this paper adds to the field by using clickstream data to examine SRL in MOOCs.

Opening up Access for Flexible Learners: A Case Study of Going Beyond OERs

James Brunton, Mark Brown, Eamon Costello and Orna Farrell

Keywords: flexible learner, pre-induction socialisation, student success

This paper reports on a five-week pre-induction socialisation MOOC designed to facilitate successful transition into Higher Education for flexible learners. In this context a broad definition is adopted of flexible learners, which includes adult learners engaged in part-time and/or online/distance education. The MOOC targets prospective flexible learners during early parts of the study life-cycle, when they are considering entry into higher education, or have just made that decision and may benefit from advice about how to effectively prepare. The MOOC has at its core a number of the Open Educational Resources (OER) developed by the Student Success Toolbox project (studentsuccess.ie) and combines these digital readiness OERs with other supporting materials, e.g. additional text and video content, discussion forums, and activities, in order to deliver a comprehensive pre-induction socialisation course. The additional materials support the key messages contained in the

digital readiness OERs that are at the heart of the MOOC. The key areas of focus in the MOOC are to: present information that aids in the creation of realistic expectations about flexible learning in higher education, especially around the importance of time-management; facilitate prospective learners in reflecting on their readiness for study; reduce anxiety by presenting reassuring messages; offer opportunities for socialisation with other prospective learners; equip these prospective learners with advice and tools on how to effectively prepare for study. A small pilot of the MOOC indicates that a course such as this, that uses the open educational resources developed by the student success toolbox project, can have a positive impact on prospective flexible learners.

Strategies for Assessment in MOOCs

Jessica Sandland and Philip Rodenbough

Keywords: MOOCs, Online Learning, Assessment

Developing meaningful educational experiences and assessments in massive open online courses can be a significant challenge for course developers. In this paper, we discuss a variety of strategies that we have used in MOOC development in order to assure that we are giving our students meaningful, rigorous assessment activities. Some strategies discussed in this paper include short answer-style quizzes, drawing by drag-and-drop, self-assessed free-response questions, and the use of fill-in-the-blank derivations.

10 years EduCamps, 6 years OERcamps - Transforming Education through Open Conference Formats

Jöran Muuß-Merholz and Blanche Fabri

Keywords: Educamp, OERcamp, OER, Barcamp, Unconference, Conference, Open Educational Practices, Open Pedagogy, Community of Learners, Community of Practitioners

Barcamps represent an unconference format with a common theme but without pre-planned programme. The session schedule is designed collaboratively at the beginning of each (un-)conference day. In Germany there are several barcamps in the field of education. Two of them will be highlighted from the position of members of their organising teams. “Educamps” on digital media in education started in 2008 and have since taken place 21 times.

“OERcamps” on Open Educational Resources started in 2012 and have since taken place 9 times.

A recent review of OER-related activities in Germany on behalf of UNESCO (Orr, Neumann, Muuß-Merholz 2017, 8) found: “Since OER activities are mostly driven bottom-up, there has been a need for sharing questions, experiences and materials between players, who have been isolated in their own institutions. These players found opportunities for sharing in cross-sector events and communities. Especially the barcamp/unconference format turned out to fit tremendously well developing a strong German OER community. Indeed, Germany so far has seen a remarkably strong cross-sector community with common interest in OER.”

Barcamps open up new and contemporary formats for learning based on openness, sharing, personal meaning, participation and equality. They are the appropriate format of education for a time in which we are depending on not only transferring fixed knowledge but also co-creating new knowledge. Barcamps are about sharing, discussing, negotiating solutions for a

world in change. Barcamps are one way of transforming education through open approaches from bottom-up.

Barcamps are not only a real best practice of open pedagogy and open educational practices. They are also the source of collective development and use of open educational materials. The documentation with collaboratively text documents, blogging, podcasts etc. are mostly shared under a CC BY licence. The organisers also provide templates for documentation and planning under CC BY.

"Open pedagogy" in the practice of teaching in higher education

Lidia Pokrzycka

Keywords: Open pedagogy, E-learning, free internet applications, stress-free assessment

In my presentation I will describe effective teaching methods related to journalism and public relations studies. It is necessary to apply new teaching methods that would attract students attention, as well as systematic training lecturers on new teaching methods. The use of many free web applications, learning through play, using crosswords, quizzes for learning vocabulary makes learning enjoyable and effective. The article will present specific methods of working with students, which I use in courses, lectures. I will show the use of Open Sources and concrete results that can be achieved by remote working.

I will describe and present the benefits of teaching through free e-learning pathways as well as web-based applications, social media which significantly enhance classes and save time (without detriment to teaching effectiveness). I will show the concrete effects of the classes, and I will present methods of stress-free assessment and verification of knowledge. I will present in practice (effective of use) specific Open Sources such as: Google Cultural Institutes, Pixbay, Wikipedia. The presentation of the Open Resources will enrich the examples of their use in specific types of classes. The presentation will be supplemented by current literature on e-learning and innovative teaching methods (both English and Polish).

Full Paper: <http://resolver.tudelft.nl/uuid:4e90606a-59e5-447f-9d63-d5915762da15>

Tanzania e-Learning Platform Initiative: Enhancing Competency in Health through Technology, Education and Partnership

Linda Hegarty, Ellen Mkondya Senkoro and Brian Mulligan

Keywords: Technology, Partnership, Collaboration, Sustainability

We are a consortium of Tanzanian and Irish organizations who, over a 5-year period, have been laying the groundwork for establishing an e-Learning platform in Tanzania. The platform will contribute to scaling up health workers' access to CPD courses, and provide opportunities for national and international virtual mentoring and coaching. Courses will be designed to support inter-professional communication and collaboration, with a clear focus on applying new knowledge and skills in the workplace.

Why we believe we will succeed:

- Digital transformation has already started and will expand through achievement of Target 9C of the SDGs .

- An e-Learning Platform is arguably the most cost-effective and sustainable option for scaling up CPD opportunities for health workers in Tanzania.
- The e-Learning platform initiative is built on a foundation of collaboration and we are committed to strengthening our reach and increasing impact through a locally-owned solution which is open to partnering with other organizations who can use the platform infrastructure for courses based on approved knowledge products.
- We know how to develop low-cost and localized Courses/MOOCs which are relevant to health workers' needs.
- Digital literacy and learning literacy skills building programmes will be provided to ensure health workers know how to participate effectively in a mobile learning environment as self-directed learners.
- As CPD becomes compulsory, the e-Learning platform will be set up to assist health workers comply with their obligations.

Harnessing technological advances offers transformative solutions to persisting challenges. Mobile learning provides an equitable, affordable, and sustainable way to meet professionals' CPD needs – allowing them to acquire new knowledge and skills, and to connect with their professional community for supportive feedback and group problem-solving, regardless of their geographical location or gender.

The development of a case-based open online course on business analytics

Marjon Baas, Erik Horsthuis and Marloes Klumpers

Keywords: [opencourseware](#), [business analytics](#), [case-based learning](#), [OER](#)

One of the main developments for financial professionals is the increasing demands to understand the present and to forecast the future. It is not only about reporting the past, but to advise companies about future developments. Targeting the available data is essential. The School of Accounting and Business Economics at Saxion University of Applied Sciences (UAS) is developing an open online course to teach students and to train professionals in analyzing and interpreting data for consultancy. Currently we have 3 cases ready, out of seven, based on real-life examples. All materials will be available under a CC BY-NC 4.0 license and are actively shared with other UAS and consultant companies in the Netherlands. Students at our own university earn credits for this course, financial professionals will earn Permanent Education Points. In addition, we want to create a learning community between students and professionals through online dialogue and discussions.

OER Maker and multipliers in continuing education

Markus Deimann

Keywords: [Open Educational Resources](#), [Massive Open Online Course](#), [Continuing Education](#), [Lifelong Learning](#)

For a long time, continuing education has been dominated by a regime of intellectual property. Most learning materials have been restrictively licenced as they were seen as the (social) capital for trainers, coaches and other adult educators.

This situation led to a strong barrier for the adoption of Open Educational Resources (OER) in adult education contexts. Even though, OER offer immense potential for continuing education and even for self-employed trainers. Therefore, it is the main target of the project “OER Content-Expert” to explain basic principles and advantages of OER for this specific audience.

Funded by the German Ministry of Education and Research, it is part of the program line to develop and implement trainings to sensitize multipliers for OER in various educational settings. In particular, it is aimed at freelancer who have no or little prior knowledge about OER. Using a blended learning scenario, learners are introduced to the idea and possibilities of OER:

Kick-off: This is for a first introduction to OER in a 3h workshop taking place at one of 20 cities in Germany.

First Online-Phase: A MOOC, lasting 8 weeks with a workload of approximately 3h/week.

Workshop: After learning the basics of OER, participants will work on an individual OER project at a workshop (2 days).

Second Online-Phase: This is intended as a preparation for the examination and for the finalisation of the individual OER-project.

Examination: A presentation of the individual OER-project is given in an online setting. An expert jury will provide feedback. The formal evaluation will, if the participant is successful, result in a certification.

At the moment (October 2017), nearly 400 participants are enrolled in the MOOC and 61 have received a certificate.

Gamification in MOOCs - General Overview

Mohammad Khalil, Dan Davis and Jacqueline Wong

Keywords: massive open online courses (MOOCs), gamification, motivation, elements

It has been 10 years since the first MOOC was prepared by George Siemens and Stephen Downes on connectivism and connected knowledge at the University of Manitoba. From 25 participants only to hundreds of thousands of students in 2011, MOOCs became a hype in technology-enhanced learning context. Nevertheless, the phenomenon of MOOCs has become widely experienced with low completion rates. As a result, It becomes necessary to improve the learning experience of MOOC users using different types of interventions. One of the suggested actions is gamifying learners experience and captivating the MOOC learning environment. In this presentation, we discuss the added value of employing gamification, the context that can fit in MOOC environment, as well as list the most popular gamification elements that enhance student engagement and motivation.

Full Paper: <http://resolver.tudelft.nl/uuid:05f3ba60-486c-4e6d-9443-fb755a0a4ff0>

Open, online, flexible and technology-enhanced: understanding the educational business models of tomorrow

Robert Farrow, Martin Weller and Dominic Orr

Keywords: open, online, flexible, technology-enhanced, sustainability, educational models, policy, OER, MOOC

What is the connection between open, online, flexible and technology-enhanced (OOFAT) approaches to education and sustainable and innovative business models? This is one question posed by the OOFAT Models project (funded by ICDE and conducted by researchers from The Open University's OER Hub and Forschungsinstitut für Bildungs- und Sozialökonomie (FIBS) in Germany). Our OOFAT concept models Content (consisting of subject knowledge, support and guidance and learning analytics, which together make up the entirety of the didactical process); Delivery (consisting of the qualities of place, pace and timing of delivery of the content, key events and processes); and Recognition and assessment (consisting of both assessment and credentialization, which are formal processes leading to recognition of learning achievements). Each of these dimensions are analysed in terms of flexibility (how digital technology is harnessed to reduce the need for physical presence) and openness (how the principle of openness is integrated (in various ways) into the core processes; from closed group to open network). The main purpose of the study is to develop models that demonstrate different practice in terms of how one or more elements of OOFAT are used to offer flexible learning in a sustainable model. The presentation will include a brief description of method and dataset; a summary of results; highlight interesting exemplars which could be scaled up or adopted by other through innovation pathways; and provide a typology of open business practices and business model exemplars.

Full Paper: <http://resolver.tudelft.nl/uuid:3bc1a824-3561-4930-b8bd-2caa88009f1c>

Designing Continuing Professional Development MOOC to promote the adoption of OER and OEP

Shironica P. Karunanayaka, Som Naidu, J.C.N. Rajendra and S.A. Ariadurai

Keywords: MOOC design, Open Educational Resources, Open Educational Practices, Scenario-based Learning, Learning Experience Design, Continuing Professional Development

There is growing interest in the adoption of open educational resources (OER) and open educational practices (OEP) in a variety of contexts. Continuing professional development (CPD) among practitioners in the effective adoption of OER and OEP is critical in this scenario. Massive open online courses (MOOCs), which also grew as part of the open education movement, provide a feasible means for this purpose. MOOCs are considered a 'disruptive innovation' in making free and open learning opportunities accessible to large numbers. Yet, the design of an effective massive online course that is as robust as a great online course with smaller student numbers where good principles of teaching and learning are maintained, is very challenging. Most contemporary MOOCs tend to have a content-driven focus of knowledge transmission, deviating from its original focus of knowledge generation. With the intention of providing learning experiences to promote learner engagement with OER, rather than presenting content about OER, we designed four CPD MOOCs to support the integration of OER and adoption OEP by practitioners based on a

scenario-based learning (SBL) approach. This paper presents the analysis and design phases of this process, discussing the challenges faced and innovative strategies adopted in our pursuit to answer the question, “How best to design effective MOOCs on OER and OEP for continuing professional development of practitioners?”

Full Paper: <http://dx.doi.org/10.5944/openpraxis.10.2.826>

Transferring learning dashboards to new contexts: experiences from three case studies

Tinne De Laet, Tom Broos, Jan-Paul van Staaldunin, Martin Ebner and Philipp Leitner

Keywords: Learning Analytics, Learning Dashboard, Scalability, Transferability, Small data, Case studies

This paper focuses on the use of learning dashboards in higher education to foster self-regulated learning and open education. Students in higher education have to evolve to independent and lifelong learners. Actionable feedback during learning that evokes critical self-reflection, helps to set learning goals, and strengthens self-regulation will be supportive in the process. Therefore, this paper presents three case studies of learning analytics in higher education and the experiences in transferring them from one higher education institute to the other. The learning dashboard from the three case studies is based on two common underlying principles. First, they focus on the inherent scalability and transferability of the dashboard: both considering the underlying data and the technology involved. Second, the dashboard uses as underlying theoretical principles Actionable Feedback and the Social Comparison Theory. The learning dashboards from the case studies are not considered as the contribution of this paper, as they have been presented elsewhere. This paper however describes the three learning dashboards using the general framework of Greller and Drachsler (2012) to enhance understanding and comparability. For each of the case studies, the actual experiences of transferability obtained within a European collaboration project (STELA, 2017) are reported. The research work discusses how this collaboration impacted and transformed the institutes involved and beyond. The use of open education technology versus proprietary solutions is described, discussed, and translated in recommendations. As such the research work provides insight on how learning analytics resources could be transformed into open educational resources, freely usable in other higher education institutes.

Full Paper: <http://resolver.tudelft.nl/uuid:64b121d7-899a-4d77-959d-fa552f50d30b>

Policies & strategies for Open Education

Open by Default- from Commitment to Action with Open Education Policy

Amanda Coolidge

Keywords: open education, open education policy, OER Congress, higher education

The Second OER World Congress, held in September 2017 in Ljubljana, Slovenia called on the open education community and governments to move from commitment to action. The “Ljubljana OER Action Plan 2017” is the outcome document of the 2nd World OER Congress and is based on the outputs of the Regional Consultations, a global online consultation of the document in the months leading up to the Congress, and the deliberations of the 2nd World OER Congress. This Action Plan identifies concrete actions to mainstream OER to achieve SDG 4 on Quality Education. The OER Action Plan focuses on five areas for government action and suggests that developing supportive policy environments is one of five areas to OER to reach its full transformative potential for supporting the realization of SDG 4. OER needs to be more integrally a part of educational policies. Join speaker, Amanda Coolidge (BCcampus), as she walks participants through the development of an open policy. This session will share global open educational policies, introduce participants to components of an open education policy, and share best practices for implementation of an open education policy.

Going Open in Europe: Leveraging open education to enhance teaching and learning in the digital age

Andreia Inamorato Dos Santos

Keywords: open policy, policy, open education, open education ecosystem

Open education is an increasingly important part of how educational institutions deliver their public mission and commit to increased quality and effective education, at the same time envisaging social inclusion and equal opportunities. Open education practices provide paths for education institutions to be more accountable to society, and modernise education by embracing the use of digital technologies, as well as promoting transparent strategies and distributed leadership at various levels. ‘Going open’ is a process for all involved: institutions, learners and society. It depends on creating both digital and non-digital opportunities to make education more collaborative, more transparent, and more inclusive.

In this presentation Andreia will provide a summary of the findings of the two JRC newest reports on open education, with focus on policies in Europe.

She will also provide an overview of how opening up teaching, learning and research practices, as well as embracing open learning recognition, have been contributing to create an open education ecosystem.

Transforming higher education in Australia through Open Educational Practices policies

Carina Bossu and Adrian Stagg

Keywords: OEP in Australia, OEP policies in Australia, open policies in Australia, policies for open practices in Australia, higher education policy

Open Educational Practices (OEP) have played an important role in assisting educational institutions and governments worldwide to meet their current and future educational targets in widening participation, lowering costs, improving the quality of learning and teaching and promoting social inclusion and participatory democracy. There have been some important OEP developments in Australia, but unfortunately the potential of OEP to meet some of the national higher education targets has not been fully realised and acknowledged yet, in ways that many countries around the world have. This paper will gather, discuss, and analyse some key national and international policies, as well as frameworks and guidelines available as an attempt to provide a solid foundation for the case of an OEP national policy for higher education in Australia. The authors will also discuss the efforts made so far to drive OEP policy development and suggest a way forward for OEP policy in Australia higher education.

Full Paper: <http://dx.doi.org/10.5944/openpraxis.10.2.835>

Open Education in the Global South findings from the ROER4D Project

Cheryl Hodgkinson-Williams and Glenda Cox

Keywords: ROER4D, Open education cycle, Social realism, meta synthesis

Over the course of three years, the Research on Open Educational Resources for Development (ROER4D) project – with its 100 researchers across 21 countries in 17 sub-projects – has sought to obtain the data and engage in the analysis necessary to answer this. The main research question for this project is: Can OEP and OER provide equitable access to relevant, high quality, affordable and sustainable education in the Global South? Using a meta-synthesis approach, the open practices reported in the studies were compared to an idealised or maximal set of open processes outlined in Hodgkinson-Williams' Open Education cycle, drawing upon Archer's (2003) social realist theory to uncover agential decision-making about OER creation, use and adaptation in relation to structural and cultural environments.

Findings from the ROER4D project show that, in the Global South contexts that were studied, the ideal or maximal Open Education cycle is incomplete in terms of the benefits of OER adoption being optimised. There are five key points of disjuncture: (1) the dependence on copying of existing OER and the corollary failure to localise; (2) the adaptation of OER, but with inconsistent curation and re-hosting of derivative works on a publicly available platform or repository, which limits access to the derivative OER; (3) limited circulation of derivative OER due, in part, to the absence of a specific communication strategy; (4) inconsistent quality assurance processes; and (5) a weak feedback loop for continuous improvement of the original or derivative work

Reference

Archer, M. (2003). Structure, agency, and the internal conversation. Cambridge: Cambridge University Press.

Impact of International Organizations on Governmental OER Policies

Igor Lesko

Keywords: International Organizations, Impact, Governments, OER, Policies

This presentation will report on findings from a PhD research study entitled: Impact of International Organizations on Governmental OER Policies. It is registered at the Open University Netherlands under the Global OER Graduate Network (GO-GN). The primary objective of this research is to explore how International Organizations (IOs) are influencing governments around the world in their OER policy approaches and with what impact.

The following three main research questions are central to the study:

1. What OER policy instruments can be identified as being used by different IOs?
2. What impact do IO OER policy instruments have on provincial, state and national governmental OER policies?
3. What recommendations, if implemented, would lead to IO OER policy instruments more effectively supporting governmental OER policies?

OER policy instruments at the level of International Organizations (IOs) are defined, within the context of this research, as instruments or courses of action by IOs, that can directly or indirectly contribute to the development or support of governmental OER policies.

The research methodology includes, amongst other approaches, interviews with representatives from International Organizations and interviews with governmental representatives in different countries.

International organizations in the study include Intergovernmental organizations (IGOs) International nongovernmental organizations (INGOs), and Foundations.

The aim of this presentation is to present results from interviews with 11 International Organizations (European Commission, Commonwealth of Learning, OECD, UNESCO, Creative Commons, Open Education Consortium, OER Asia, OER Africa, Hewlett Foundation, Shuttleworth Foundation and the Open Society Foundations) on how they influence governmental OER policies and the observed or perceived effectiveness of their actions.

This research is supported by the William and Flora Hewlett Foundation.

French policy for Open Education at the crossroads

Jacques Dang, Florence Ducreau and Sophie Touze

Keywords: POLICY, BADGES BLOCKCHAIN, COMPETITION

French policy for open education is the result of a combination of centralized and grassroots approaches.

The Ministry of Higher Education has, for the past seventeen years, co-funded the development of OERs, through several initiatives: “digital campuses”, “regional digital universities” and “thematic digital universities”.

At the same time, it is the scientific experts in the various academic fields and universities who validated these resources, based on their scientific content and excellence.

The result: a global repository with over 40,000 educational resources, mostly in open access, sometimes, in medicine or law, available through specific licensing.

Despite this achievement, no French Open University has emerged and Open Education policy in France is now at a juncture: it must move beyond the production and open access to educational resources, and address larger societal objectives, in line with the UN’s SDG 4 on Quality Education for all. The two current top priorities target different audiences, in an apparent contradiction, though.

The first one focuses on existing universities; policy makers support their radical digital transformation, to maintain their competitiveness on global markets, and emphasize competencies and skills for a diverse student body that mixes experiences at work and at universities throughout their life. While academic research remains at the core of the production of knowledge, it does not guarantee excellence in the learning experience of students.

At the same time, we need to support large-scale deployments of life-long professional learning, with no explicit connection to higher education institutions: universities are no longer the only source for professional skills and competencies, or their recognition. Open badges, blockchain processes, professional experience and other innovations in learning can develop into viable alternatives to university degrees, and therefore, into fierce competitors.

Maintaining a dynamic balance between these perspectives is a major challenge for French policy makers in open education.

Education in the Open Government Partnership commitments

Javiera Atenas and Leo Havemann

Keywords: Open Government Partnership, National Commitments, Open Education, Civic Education, Open Data, Open Educational Practices, Educational Policies, Open Policies

The improvement of education is a recurring objective within the commitments of the countries that participate in the Open Government Partnership (OGP). There are several national commitments related to the opening of Data, Information and Education Materials as teaching and learning tools within the national plans for Open Governance. In this context, we examine how these elements are related to the OGP commitments of countries at the

international level and to propose strategies for the implementation of concrete policies that support these commitments with respect to education and to citizenship education.

To achieve this objective, we will present the results of an exhaustive study on the models of education and civic education of different national OGP commitments, and based on the results of this study, we will present a diagnosis regarding how really open and sustainable these are. The results of this study allow us to present a series of strategies to promote open education (understood as those practices based on content released under open licenses that allow universal and democratic access to quality educational materials) as a tool to promote educational development amongst OGP member countries.

The strategies to be presented include the effective promotion of the use of open government data as learning and teaching tools, citizen education focused on promoting understanding of access to public information, promoting the creation and development of initiatives national and international programs that promote sustainable open education in public education systems, and finally, the proposal of open education policy development models that allow the commitments made by governments and ministries to have a practical application.

As summary: our goal is to provide to the Open Education Community practical tools that allow supporting the different countries of the region in the adoption of open education by generating policies that encourage open educational practices.

German OER Practices and Policy – from Bottom-up to Top-down Initiatives

Jöran Muuß-Merholz, Dominic Orr and Jan Neumann

Keywords: Mainstreaming, policy, practitioners, Germany, lessons

Germany has been a laggard to the OER world in many ways, but is picking up speed through policies and practices focussed on bridging the gap between bottom-up (grassroot) initiatives and top-down policies and regulations. This submission will present the current state of the art in Germany, where a lot of attention is being placed on mainstreaming good practice and train-the-trainer initiatives. One of the developments, which are expected to have a huge impact on the future of OER in Germany, is the implementation of a national strategy for digital education, which has been partly developed, but is currently awaiting the constitution of the new German government for final decisions and launching. The authors present their review of developments until now and their assessment of the next steps.

How a Hashtag Launched a K-12 OER Movement

Kristina Ishmael-Peters

Keywords: Policy, K-12, OER Movement

In October 2015, the U.S. Department of Education launch #GoOpen, a national movement that supports states, school districts, and educators transitioning to the use of open educational resources in place of traditional instructional materials. Open educational resources, commonly referred to as OER, are teaching, learning, and research resources

that reside in the public domain or have been released under a license that permits their free use, reuse, modification, and sharing with others. OER have enormous potential to increase equity in access to high-quality educational opportunities in K-12 schools. Choosing openly licensed educational materials has enabled school districts to empower teachers and reallocate curriculum funds to professional learning, infrastructure, and the transition to digital learning.

#GoOpen was launched on October 29, 2015 at the Open Education Symposium, an event that brought together district and state leaders, nonprofits, foundations, and private sector companies. The #GoOpen Exchange in February 2016 officially launched the #GoOpen State work and expanded local work to 40 committed districts. In March 2017, the GoOpen Exchange brought more than 100 district and state leaders, researchers, nonprofits, and educational technology companies together to share best practices, learn, collaborate, and design prototypes of future work.

#GoOpen is a hashtag that launched a movement. It has gained momentum largely in part to a groundswell of OER champions in over 100 districts and 20 states, as well as nonprofits, foundations, and private sector companies. This session will share the #GoOpen story and its continued growth through the development of a thriving community of practice to ensure sustainability and scalability that can impact change in K-12 education.

MOOCs with a purpose in Southeast Asia

Marco Kalz

Keywords: Open Education, MOOCs, Rural stakeholders, Southeast Asia, Indonesia, Malaysia, Philippines

The COMPETEN-SEA project is a Capacity Building in Higher Education (CBHE) project funded by the Erasmus+ program of the European Commission. The main objective of the COMPETEN-SEA project is to enable best South-East Asian Universities to develop a new kind of accessible, affordable, high quality and effective educational services to various groups of population now excluded from traditional educational outreach. The MOOC technology was chosen as the tool most promising and suitable for the region with its particular characteristics (growing population dispersed across thousands of islands and separated by thousands of kilometres, extremely high growth of ICT penetration enabling modern ICT-based education, world-class academic staff in best local Universities, etc.). The first attempts to develop local MOOCs confirm the demand and impact, as well as the challenge. The European capacities, technologies and experiences can and shall help to meet those technological and pedagogical challenges faced by local Universities. During the panel, the project members will report on progress towards the development of open courses for these stakeholders taking into account the national policy environments of the participating countries in Southeast Asia. A special focus will be given to the challenge of reaching remote communities with open technologies and open content.

TU Delft Open: From Policy to Practice

Martijn Ouwehand and Willem van Valkenburg

Keywords: Policy, 10 years, experience, support, upscaling, maturation, mainstream, innovation, open, TU Delft, OpenCourseWare, MOOC

Since the start of TU Delft OpenCourseWare as a small pilot project in 2007, 10 years ago, the TU Delft open policy has seen a strong development through open education, open research, open software, open science and open valorization.

In these 10 years we have published 200 OpenCourseWare courses, 68 openMOOCs, many videos on iTunesU. We started multiple project on reuse of OER in blended courses, produced open textbooks and many more.

Around the same time as OpenCourseWare the library started with promoting open access publishing. In 2016 44% of peer reviewed articles of TU Delft staff was open access. In 2016 this resulted in an open access policy that states that Open Access publishing is mandatory for all (co)authors at TU Delft.

In 2017 TU Delft incorporated Openness as a core value into its long term strategy via the TU Delft Strategic Framework 2018-2024 and institutional educational vision. This marks the adolescence of openness in our university, and acts as an important lever to fully mainstream openness in all departments and fields of our university.

During our presentation we will highlight the road we've taken so far and the lessons we learned along the way. For instance we will illustrate: how we organized our support organisation, which enabled us to mainstream the publication of educational resources institution wide. How we upscaled the initiative to maturity and bigger scale activities, resulting in the establishment of the Delft Extension School and incorporation of openness in institution wide policy. How the open approaches taken since 2007 has had an impact on TU Delft Campus education and on a global society

And we will share how we have been and are planning to operationalize openness towards open mindsets and open approaches in the primary processes of our university.

Opening Teacher, Student and Researcher Access to Copyrighted Works – Complimentary Roles of Open Licensing and Copyright Limitations

Meredith Jacob, Mike Palmedo and Teresa Nobre

Keywords: classroom, research, copyright, learning, publishing

While open educational resources have expanded exponentially in the last decade, most educational resources are copyrighted works that are not openly licensed. Copyright limitations often allow the use of such resources in the classroom, in research, and in the creation of new OERs, but the degree to which use is possible varies greatly by country. Furthermore, proposed changes to copyright limitations will affect the degree to which these uses will remain legal.

We propose a panel to discuss how teaching, learning and research activities are supported by a two-track strategy of encouraging open licensing and open access policies, as well as limitations and exceptions to copyright law. It will introduce Open advocates to legal provisions that allow teachers and researchers to use copyrighted works without permission

from rightholders, will show how poorly crafted legal provisions common in many countries make such uses illegal, and will discuss how the two communities of activists can jointly pursue common goals. Panelists will briefly present two studies illustrating how differently crafted copyright limitations yield different outcomes in the real world. Teresa Nobre's survey of education exceptions in 15 European countries shows that teachers in some countries can make use of certain types of resources, while others cannot. Mike Palmedo's study of publishing output and citations data shows that scholars in middle-income countries with more permissive research limitations tend to produce more papers, and more highly cited papers. Meredith Jacob will present examples of how teachers and OER authors have relied on fair use to include third party materials in the OER context. Most of the panel's time, however, will be devoted to a structured conversation with the audience to find areas where Open and user rights advocates can cooperate to expand access to a broad set of educational materials, including books, papers, and videos.

Transforming open education through Open Government Partnership in 2018

Nicole Allen and Jan Gondol

Keywords: open education, OER, Open Government Partnership, OGP, sustainable development, SDGs, participation

This action lab will first briefly introduce Open Government Partnership (OGP) and its process, how it enables development of open education policies and what has been accomplished so far in countries around the world (including the latest developments).

Participants will then dive into designing specific policies (or government commitments), with a focus on international collaboration. The facilitators will introduce specific resources both for those who are new to work with the OGP as well as those who want to bring their current involvement to the next level (e.g., strategies for engaging the government and the civil society, existing international organizations and networks of civil society stakeholders, and so on).

OGP has recently become a powerful avenue for introducing open education policies and mainstreaming them. This Action Lab led by experienced OGP practitioners will equip the participants with the knowledge of the OGP process and specific steps how they can get involved, with a focus on international collaboration, which offers great potential for sharing open educational resources as well as expertise.

Using Open Education for an Innovative International Cooperation at governmental level

Perrine de Coetlogon and Sophie Jequier

Keywords: governmental, university, network, cooperation, OER, mexico, france, MOOC, UNT

Since 2014, the Mexican government and a network of 9 Mexican universities has been inspired by the French model of 8 digital universities covering all thematic of French higher Education <http://univ-numerique.fr/>. The Mexican Project CODAES (Communautés numériques d'apprentissage dans l'enseignement supérieur, « Comunidades digitales de

Aprentizaje en la Educacion superior ») was born, which has the objective of launching an ambitious collaboration on OER.

<http://www.codaes.mx/>.

Each thematic is supported by one "traditional" university. There are also transversal thematics such as « international », « indexation » ou « digital skills and competences ».

Since 2016, 3 seminars have taken place in Paris, Lorraine and Grenoble and in Guadalajara.

The aim of the presentation is to present the deliverable of these collaboration, that are all open to public, in particular in :

- environnement and sustainable developpement : translation into Spanish of a collection of 6 MOOC (UVED/Yucatan),
- Digital skills and competences (PIX - Guadalajara),
- indexation of OER (LOM/MLR) (national working group CNED Poitiers, Colima),
- basic sciences (Unisciel Bordeaux/Guanajuato),
- médecine : developement of studies on geriatrics (UPMC/Nuevo Leon).

Towards a strategy on Open Education in France?

Perrine de Coëtlogon and Sophie Touzé

Keywords: #France, #Governmental, #platform, #OER, #innovative, #pedagogy, #digital, #OpenEducation

Since the beginning of the century, France has launched several programmes on Open Education, giving access to students, teachers and all the public to more than 42 000 OER through one search engine, 9 platforms of MOOCs (and the ambitious public OpenEdX Platform FUN-MOOC) and PIX, the platform to digital skills and competences. All these resources but also all innovations are included in ONE single portal : www.sup-numerique.gouv.fr

The presentation will give a few examples of the most popular OER in France and within, in particular, the Frenchspeaking countries.

Collaboration: The Key Ingredient for a Sustainable Open Education Movement

Rajiv Jhangiani and Amanda Coolidge

Keywords: Open educational resources, Open textbooks, Collaboration, Sustainability

If you want to go fast, go alone. If you want to go far, go together. Although sharing and collaboration are among the main affordances of open licensing, open education projects in North America are still mainly supported and driven by individual organizations or institutions. While working within a single organization can permit the agile development and management of open education projects, at BCcampus we believe that an innovative and sustainable open education movement requires deliberate and active collaborations across

institutions and organizations, particularly within academic disciplines. In this presentation we will showcase three examples of our efforts to foster a collaborative model for the development of open educational resources (OER). The first example involves the creation of Communities of Open Education Practitioners (COEPs) for several disciplines. Among other things, these COEPs employ the open source annotation tool Hypothes.is atop the open textbooks of their discipline to flag errors, highlight passages that require revision, and to share pedagogical resources. The second example involves a collaborative sprint model wherein a small number of practitioners are brought together for a short span of time to develop specific OER or ancillary resources. The third example involves a collaborative model of OER development (featuring co-development, peer-review, and reuse) for Canada's first three "Zed Creds," degree programs that carry zero textbook costs thanks to the adoption of OER. In this presentation we will share the strategies we have deployed and lessons we have learned for fostering and supporting successful collaborative OER projects.

Technical Vocational Education and Training: the 'dark continent' in OER

Robert Schuwer and Ben Janssen

Keywords: Adoption of OER, UNESCO SDG 4, Technical Vocational Education and Training, Research

Commissioned by UNESCO, a study has been executed with the aim to understand better the potentialities of OER for Technical Vocational Education and Training (TVET) and to provide Member States and UNESCO, in particular UNESCO-UNEVOC, with recommendations to support the creation and use of OER in TVET. The study was intended to fill the gap both on mapping the landscape of the use of OER and open practices in the field of TVET as well as on policy recommendations to support Member States' efforts in promoting and developing OER.

The study used a mixed methods approach, consisting of a literature review, a survey and semi-structured interviews. The main result from this study is that the general opinion of the usefulness of OER for TVET is not in line with actual programs for adoption of OER. Main causes for this are a low image of TVET at policy level and specific characteristics of TVET teachers/trainers and learners.

Full Paper: <http://resolver.tudelft.nl/uuid:9c018fa0-7e8e-4d1a-8a8e-3fbdf6ef4318>

Make MOOCs count for higher education: Approaches to awarding ECTS Credits for learning in open online courses

Sebastian Knoth, Anja Lorenz and Florian Rampelt

Keywords: MOOCs, ECTS, Electronic Examination, Credentialization, Recognition of Prior Learning, Refugees

MOOCs provided by Higher Education Institutions (HEIs) have the potential to open up education to a wider audience. By implementing appropriate quality assurance measures, they could also provide a first creditable step into the formal higher education system. Exploring the potential of credentialization and recognition of MOOCs was a major pillar of the INTEGRAL²-project ("Integration and Participation of Refugees in the Context of Digital

Teaching and Learning Scenarios”) of Lübeck University of Applied Sciences, RWTH Aachen University and Kiron Open Higher Education. The partners explored possible combinations of the openness of MOOC-based learning with quality assurance and examination approaches that abide to standards of the European Higher Education Area.

Regarding quality assurance measures, Kiron has repurposed and adapted tools developed through the Bologna Process in order to explore new pathways to the recognition of prior learning. A core element are MOOC booklets (MOOklets) that connect and display all quality information needed for recognition in a comparable, standardized way.

As the university partners identified the existing exams within MOOC’s to be the most critical part in order to award legitimate credit points, the partners followed two different approaches: Module-based competence assessment (on- and offline) and MOOC-based examinations (offline). Lübeck University of Applied Sciences tested a procedure to verify learning outcomes by written and oral examinations whilst RWTH Aachen University targeted a more traditional examination approach with written and e-exams that can be taken simultaneously at different offline locations. In the follow-up project INTEGRAL+, the partners will focus on establishing a German examination network for e-assessment of MOOC-based learning.

Both efforts in the field of a firm examinations and the endorsement of recognition processes of all existing and future university partners within the Kiron network can lead to simplified admission process and can be key enablers of a successful integration via education.

Full Paper: <http://resolver.tudelft.nl/uuid:0e73c6a2-de84-48c0-99b9-6059c8152212>

OER going mainstream?

Sophie Touze, Gard Titlestad and Igor Lesko

Keywords: OER, Open Education, Innovation, Education 2030, Action

The International Council for Open and Distance Education, (ICDE, www.icde.org) and Open Education Consortium, (OEC, www.oeconsortium.org) both have a proud history in building up and promoting Open Education in all parts of the world.

Based on joint observations and analyses, ICDE and OEC will facilitate a sharp, engaging panel discussion (60 min) on moving OER from the margin to mainstream – aiming for the tipping point. Panellists will include members of the ICDE Executive Committee and the OEC Board of Directors. We will interrogate the challenges and solutions to the large scale adoption and use of OER around the world.

The adoption and use of Open Educational Resources (OER) have been shown to increase student retention, support student learning, and reduce costs for students and educational institutions. An OECD report (2015) claims that OER is a catalyst for innovation. While the uptake of OER is increasing around the world, still a minority of faculties, educational institutions, stakeholders and governments aim for full incorporation of OER into mainstream education.

Significant initiatives have been started by ICDE and OEC members around the world but the situation in many countries is worrying.

The 2nd World Open Educational Resources (OER) Congress, 18-20 September, Ljubljana, Slovenia, organized by UNESCO called for action: “From Commitment to Action”. To that end, it adopted the “Ljubljana Action Plan”.

Six months after this important event, the question for all involved in the movement for open is: How can we take the best from OER, including its innovative potential and move OER mainstream?!

This question will be asked to pannelists and audience in an interactive way and each one will be invited to brainstorm and suggest a few critical measures to move OER mainstream.

This proposal responds to the track Policies & strategies for Open Education.

Digital strategy at UCLouvain : openness matters

Yves Deville and Christine Jacqmot

Keywords: Openness, Politics, Strategy, Open Education, Open Access, Open Publication, Open Source

As is the case in many universities, the Université catholique de Louvain (UCLouvain) decided to seize the opportunities offered by the coming of age of digital technologies and their attendant capabilities by formulating a digital strategy. This strategy, validated in 2015, aims to exploit digital capabilities to enhance the creation, dissemination, and diffusion of knowledge. UCLouvain choose, however, to articulate its strategy simultaneously on three areas of openness: open education, open publication, and open source.

In this paper, we first motivate the choice for openness.

We then outline the priorities that have been set in UCLouvain’s digital strategy and we highlight various axes of development by illustrating some of the results already achieved, with an emphasis on open education: the deployment of an open resources repository, the realization of MOOCs, the setting up of an open journal system, and examples of support provided to the community, for instances.

We conclude by discussing several challenges to be faced when mainstreaming openness.

Our aim is to share our experience and to open a fruitful discussion with other institutions having similar concerns.

Full Paper: <http://resolver.tudelft.nl/uuid:033860aa-bed0-4477-8c80-7fec3576aaff>

Institutionalizing Open Education

Understanding the continuum open practice: a conceptual model for practitioner and institutional support of OEP

Adrian Stagg

Keywords: open educational practice, higher education systems, theory of human development

Early open educational practice (OEP) research and projects uncritically promoted openness as a ideological societal good contrasted against traditional educational systems predicated on economies of scarcity, and systemic inequality in access to, and participation with, formal education. Open educational resource (OER) production – often beginning with 'legacy content' - privileged original authoring over reuse, positioning initial engagement with openness from familiar practices. As an understanding of the complexities of openness matured – and continues to do so – policy and strategy need to be informed by the lived experience of open practitioners, and the inherent challenges explicitly articulated. Whilst the barriers and enablers of OEP have focused researcher effort, and have a degree of consistency globally, nuance and context are almost entirely absent in the literature.

This paper seeks to address the gap of nuanced practitioner experience by drawing together two conceptual models – a Continuum of Open Practice, and the Ecology of the Open Practitioner as a tool for understanding practice at the individual, institutional, and national levels. Situated in higher education experiences of openness, the model draws upon initial data from four case study sites to determine the breadth of activity and the localised norms that influence engagement with openness.

At key points during the session, participants will be asked to reflect on their contexts, and how this influences local OEP – from the practitioner, and institutional (or organisational) perspectives with particular emphasis on unearthing contextual enablers and barriers for mainstream adoption of open education. The global nature of the conference provides positive affordances by actively engaging participants, and building discussion for practical, evidence-based action.

From the Ground Up: How Faculty OER Initiatives Set the Stage for Impact Across SUNY

Alexis Clifton and William Pelz

Keywords: faculty, OER, SUNY, New York, Excelsior Scholarship, faculty leadership, support services

Faculty-led OER course initiatives have met great success across the State University of New York (SUNY) system. These initiatives are forming the background of institutional OER programs across our community colleges, liberal arts and technical colleges, and research universities. SUNY has recognized the need for system-wide structures to span the gaps and partner individual campuses and faculty with just-in-time support needs. In this panel, faculty members from four SUNY colleges will demonstrate the value of faculty leadership as local programs take shape and grow. They will also speak to the importance of having a system institution like SUNY OER Services who can respond to their needs and see across

campuses to share resources and best practices. Finally, this panel will address the importance of well-timed financial support from government initiatives, and how that can be most meaningfully applied to spur adoption and student success. The New York State Excelsior Scholarship budget funding of \$4 million dollars to SUNY OER has greatly impacted our program growth, and is making the OER conversation mainstream across our state.

Early Lessons Learned from a Large Scale OER Initiative at a Large Urban University System

Ann Fiddler, Jean Amaral, Gregory Gosselin, Kim Thanos and Stacy Katz

Keywords: Open pedagogy, Open Educational, Resources Transformative Learning

City University of New York is the leading urban public university in the U.S. With the first college founded in New York City in 1847, the University today comprises 24 institutions. CUNY provides high-quality, accessible education for more than 275,000 degree seeking students and over 218,000 adult, continuing education and professional education students throughout New York City's five counties. For many students at CUNY, the cost of textbooks can be prohibitively expensive. Since nearly 40% of CUNY's students come from households with annual incomes of less than \$20,000, spending an average of \$1,200 per year on books and other supplies is too often an insurmountable barrier to academic success. CUNY's Office of Library services, which supports the 32 libraries, has been concerned with textbook affordability for some years now and with the growth of the OER movement has embraced OER as the most viable solution. Recent efforts across CUNY have contributed to institutionalizing OER on a large scale across the campuses. Our involvement with the Achieving the Dream (ATD) OER Degree Initiative, a funding effort across 38 community colleges nationwide, has given us the opportunity to raise awareness. Earlier this year New York State funded the university \$4 million dollars for OER and through this we are able to broaden the reach. Lessons learned from ATD including our partnership with Lumen Learning as a technical provider and mentor and participation as a research partner in a study on the project has helped shape methodology and practice. The short-term goal is to reduce costs for students and accelerate their progress through college, but an important secondary impact is to change the culture to that better connect curriculum and pedagogy to updated student learning outcomes. OER is bringing a quiet revolution of innovation in the pedagogy of higher education in the U.S.

"Multi-mode learning" - A sustainable approach to opening up higher education

Brian Mulligan

Keywords: low-cost, open education, multi-mode education, MOOCs

Although building an open course is not necessarily very costly, it does require a modest investment of time or money to create and maintain and thus can be difficult either for an individual academic or for an institution to justify. However, if a course is developed using low-cost techniques and used by an institution for delivery to multiple audiences, in different modes simultaneously, it may not only cover the costs of development immediately it may help to reduce costs, improve quality of learning and improve access to learners who

previously could not gain access. This presentation will briefly describe low-cost production methods for MOOCs identified in the EU funded LoCoMoTion project and describe how these can be used within an institution to simultaneously serve campus learners, distance learners, free online learners and competency-based learners.

CC Certificates: Educators, Librarians, Government

Cable Green

Keywords: CC Certificates, Government, Open Policy, Librarians, Creative Commons, open licenses

Creative Commons launched the CC Certificates for Educators, Librarians and Government (<https://certificates.creativecommons.org>) two weeks ago at the 2018 CC Summit in Toronto. The CC certificates were developed in response to the increased use of CC licenses globally and the corresponding need to help educators, librarians and government staff acquire Commons expertise. The CC certificates are designed to provide both the basics of using CC licenses and the particular expertise and guidance that educators, librarians, and government staff need when advancing open content, practices and policy in their respective spaces.

This session will provide an overview of each of the certificates, details on how and why to take the CC Certificates, how to become a certified trailer of CC Certificates, and how the CC BY licensed OER can be downloaded and remixed for other purposes. Additional phases of the project will also be discussed and feedback collected.

Forging an Open Path: eCampusOntario OER Fellows

David Porter and Jenni Hayman

Keywords: Educator Perspectives, OER Research, Canadian Perspectives

From November 2017 through November 2018 eCampusOntario has named six educators to help create awareness and increase use of OER at Ontario colleges and universities. The OER Fellows are two university instructors, two college instructors, and two professional support staff (a librarian and an educational developer). The Fellows are from six different Ontario institutions that represent regional differences in approaches to post-secondary teaching and learning. In this 60-minute panel session, the Fellows will describe their work with eCampusOntario that includes in-person workshops at various campuses, a series of webinars related to use of OER in teaching practice, blogging and other forms of social media participation, and a small-scale action research project related to their individual interest in OER for teaching and learning. They will focus on their individual journeys and interactions on their campuses, and their experiences with peers at a variety of workshops and webinars between November 2017 and April 2018. The panel will engage in dialogue with conference attendees related to their success and challenges promoting OER on campuses where awareness and use are only beginning to form.

Open Enough? Eight Factors to Consider when Transitioning from Closed to Open Resources and Courses: A Conceptual Framework

Erik Christiansen and Michael McNally

Keywords: challenges, framework, scale, pedagogy, resources

There is both a feeling of excitement and hesitation when mentioning open educational resources (OERs) to university educators. The idea of being an “open educator” and using only openly licensed teaching materials sounds noble. Such an approach has the potential to benefit students on multiple fronts. However, making the transition from closed to open resources requires a significant time investment from the instructor and requires specialized knowledge. These skills include an understanding of open licensing/copyright, accessibility standards, language and cultural considerations, anticipated support costs for the resource, digital distribution, file formats, and potential pedagogical implications. Furthermore, there are conflated definitions of “openness” in teaching - some of which do not necessarily rely on OER (Pomerantz, 2016; Pierce, 2016; Hegarty, 2015). The literature on OER is somewhat lacking as it relies heavily on institutional case studies and does not provide much guidance to educators who want to adopt or create OER. This presentation is intended primarily for university educators, although many aspects will resonate with instructional designers and librarians. We will review the literature on OER and openness in education to identify the major challenges educators face when adopting an open approach to teaching. We will also explore the various approaches to openness in education (Nasccimbeni, Fabio and Burgos, & Daniel, 2016; White & Manton, 2011). Second, drawing on the challenges and considerations identified in the literature, we will propose an eight-factor conceptual scale (Authors, 2017) for measuring openness, which will help educators understand what openness looks like for each of the OER factors. We will explore what the implications of “absolute openness” are and how some approaches to openness can negatively impact student learning. Participants will leave this presentation with practical knowledge that will prepare them when transitioning to OER for their teaching.

A Commons of Our Own: Accelerating OER and Open Learning College-wide

James Luke

Keywords: commons, OER, OEP, open pedagogy, institutional, college-wide, domains

Lansing Community College is institutionalizing the use OER, OEP, and open pedagogy by building an online scholarly commons we call a “Commons of Our Own”. With a “Commons of Our Own”, LCC has been able to accelerate adoption of both OER and OEP.

Commons of Our Own re-connects the college to the community, creating a virtual equivalent of the campus including social interaction. It reinvigorates the institution’s mission.

Transformative college education involves more than a structured curriculum of courses and classes, checking off outcomes. Learning inside the classroom has always been only a part of a good college education. The campus or commons experiences are as important as the classroom. Students at community colleges often don’t live on campus. They increasingly live their lives in digital connected devices or take online classes. There is a vast digital no-man’s land between the closed online LMS classroom and the social media where they live. Students miss the transformative opportunities the physical campus provides to share, create, and connect.

The Commons of Our Own concept builds on our Open Learn Lab, a Domains of One's Own effort, the first at any community college. It connects classroom experiences with the broader open world of the Web and the public community. OpenLCC.net consists of the many individual voices of the students, faculty, staff, and others in the LCC community. It is hundreds of websites created by them and grouped as: Share, Learn, Create, and Connect.

Phase I taught us "it", meaning a domains of one's own effort, was worthwhile, we just couldn't enunciate what "it" was or where "it" fit in the college. We couldn't, that is, until we discovered and formulated the concept of a Commons of Our Own.

An Award for Open Educational Resources – an innovative approach to defining quality in OER

Jöran Muuß-Merholz and Anja Lorenz

Keywords: rewards, awards, recognition, reputation, Germany, best practice, OER, quality

To promote the efforts of practioners in the field OER to a wider public, the German OER-Award has been granted for the first time as part of the OER-Festival in February 2016. Elected by a jury of OER experts, there was not only an OER-Award in several educational field, but also in special domains. The second OER-Awards will have been granted in November 2017 following the collaboratively-designed process to identify deserving nominees and winners.

The presentation describes the short history of the German OER-Awards including changes that has been made for the second edition. Next to best practices also the challenges will be discussed. Finally, we will welcome your feedback to improve the process for the 3rd edition of our OER-Awards.

Open Educational Practices in Kyrgyzstan: Connecting Partners and Programs

Jyldyz Bekbalaeva, Anita Walz, Aisuluu Namasbek Kyzy and Zhanylai Keldibekova

Keywords: Partnerships, Kyrgyzstan, Baseline survey, Academic libraries, Open Education

Independent, democratic, and post-Soviet, Kyrgyzstan is in the midst of multiple changes that involve its cultural identity, economic incentive structure, government, and laws, all of which have an impact on the country's educational systems and educational practices. In addition to national and local initiatives, multiple international entities, including other countries, multinational corporations, private individuals, and international non-governmental agencies are and have been involved in initiatives involving education in Kyrgyzstan. These initiatives are meant to address disruption in the funding of school, libraries, educator professional development, and educational infrastructure as well as the ageing and replacement of Soviet-era curriculum materials in response to Kyrgyzstan's independent status after the 1991 dissolution of the Soviet Union.

Following the nationwide initiative on promoting OER launched in 2014, education practitioners in school and University levels have begun exploring open pedagogy and OER projects. Successful implementation of open educational resources requires coordination among different partners. Partnership should be cherished at all levels, whether across a single institutions, as well as among institutions. Academic libraries are among most active

stakeholders working towards promotion of OER in Kyrgyzstan. Building on Bekeshev and Samykbaeva's 2017 OE Global presentation, this presentation will highlight current developments, a university open education pilot project, and recent research regarding copyright, open educational practices and open education resources in Kyrgyzstan. The presentation will also include descriptions of partnerships, projects, pilots, and national-level faculty survey results intended to determine the level of awareness and practice of Open Educational Practices, OER, and Copyright-related decisions. Potential areas of further focus and recommendations for increasing the adoption of open education practices will also be addressed. The presentation features an academic Library Director, Author of Kyrgyz Copyright law and law faculty member, and two librarians: a Fulbright Specialist on OER and an Electronic Resources librarian.

Full Paper: <http://dx.doi.org/10.5944/openpraxis.10.2.834>

Learning how to share – a Dutch perspective on infrastructure for Open Educational Resources

Kirsten Veelo

Keywords: Open Educational Resources, National referatory service, Open Infrastructure, Community, Open Policy

In this session we share a Dutch perspective on infrastructure for open sharing and reuse of digital learning materials.

In 2015 the Dutch minister of Education formulated her ambition for OER as follows: "By 2025 all lecturers in higher education will make their teaching materials freely available so they can use each other's digital learning materials". Since then higher educational institutions, the Minister of Education and SURF have joint forces in the Netherlands.

One important need for lecturers is to be able to find and share high quality open educational resources more easily. Sharing must be quick and user-friendly, and the material must be easily accessible. Infrastructure that meet these criteria is not yet generally available for Dutch higher educational institutions.

SURF, the collaborative ICT organisation for Dutch education and research, has the intention to launch a national service that facilitates lecturers in higher education to share and reuse their teaching materials freely and successfully. The main goal of this national service is to unlock OER collections that are developed by Dutch higher educational institutions and improve the findability on a national level. Good metadata to support findability and compatibility with current international standards for the free exchange of data are essential in this respect. The collected metadata will be presented in a portal with search functionality.

The material should preferably be (peer)-reviewed before being published. Teacher communities can play an important role. In June 2017, the Ministry of Education launched an extension of the existing funding program Open and Online Education. Higher education institutions are invited to collaboratively build collections of qualitative outstanding digital open learning materials. There's a special focus on teachers collaborating within domain specific and cross-institutional communities, review the quality of existing materials and complement these with new materials.

Helping institutions with the Institutionalizing of OER: an online policy making tool

Lieke Rensink and Michel Jansen

Keywords: OE-policy, Institutional, Online Tool (Website)

SURF, together with a group of experts, recently developed an online roadmap for developing policy for OER in Dutch higher education. The tool will help higher education institutions to draft a clear policy on publishing and reusing OER, either at faculty or at institutional level. Developing a good policy is complex because it involves many different aspects and there are many barriers to get started with OER. The tool helps to take all the necessary steps and provides numerous suggestions for possible policy choices, based on a variety of sources.

Online Roadmap Policy for Open Learning Materials

During this presentation we will give a demo of this tool, which can be found online at <http://beleidopenleermaterialen.surf.nl>. (The tool itself is in Dutch).

We will explain how the tool has been established, in close cooperation with experts from higher education institutions, and what the starting points were. The tool contains many open sources, primarily fitting the Dutch circumstances, but also international sources are included.

Current users of the tool will be present at this session and share their first experiences with the tool.

During the presentation we will talk with the audience about:

- Their advice on how such a tool can best be used in an institution and whether additional support is necessary;
- Other tools to support policy makers in policy development; which are available?
- Additional resources that can help institutions to set up policies.

The adoption accelerator workshop to support reuse of open educational resources within Higher Education Institutes

Nicolai van der Woert and Marjon Baas

Keywords: adoption, OER, OEP, Workshop, Higher Education

Although many good open educational resources are available worldwide, the shift to actual reuse OER in existing Higher Education curricula is still limited and only slowly gaining momentum. In other words: adoption by teachers, support staff and management can use a helping hand.

In the Dutch Special Interest Group Open Education we concluded that Higher Education needs an effective tool for accelerating and monitoring the uptake of OER reuse. This is how the adoption accelerator workshop was born. In this action lab at OE global 2018 we will guide you through the workshop setup in 90 minutes using a hands-on approach. Afterwards, we will have an interactive discussion about how to use the workshop materials in your own

context. It takes a full day to run the workshop. The adoption accelerator workshop will be available under a cc-by license.

In the adoption accelerator seven themes influencing adoption are explored: basic knowledge about Open Education and OER, content curation, Open Educational Practices, setting up support services, community building, policy development, and organizational development. You learn about our curated collection of (open education) tools concerning these seven aspects of adoption. Also, the adoption accelerator uses a maturity model to map and visualize your starting situation and ambitions. A SWOT analysis is then used to discover the most plausible scenario for accelerating adoption in your situation. In the workshop, you lay the foundation for an acceleration plan to be used in your own context, so you can apply your new insights right away.

This action lab is suitable for newcomers to the world of open education and for more experienced implementers of OERs. For instance: educational consultants, librarians, policy developers, educational management, OER project managers, support staff, innovative teachers. No special advance knowledge needed although knowing the basics of open education helps.

Transforming Our Own Practice: Reflecting on Transformative Learning Processes and Open Education

Stacy Katz

Keywords: transformative learning, reflection, journey

My proposal for an Action Lab is to create a space for participants to learn about transformative learning theory, a relevant theory of adult education, and reflect on their own process of learning about Open Education. Transformative learning theory, as developed by Jack Mezirow, proposes that adult learners undergo a process of acquiring new knowledge which causes them to critically examine their core beliefs, assumptions, and values. This process begins with experiencing a disorienting dilemma in which a discrepancy is exposed between what they have always assumed to be true and what they have just experienced, heard, or read. This development is followed by recognizing others share this discontent, planning a course of action, acquiring knowledge to implement one's plans, and provisional experimentation of this new role, building confidence, and reintegrating this new perspective in one's life. (Mezirow, 2000, p. 22) By reflecting on one's own process of transformation, participants can think critically about ways to encourage others to adopt Open Educational practices.

As the theme of the Conference is Transforming Education Through Open Approaches, it seems particularly relevant for Open Education advocates to engage in self-reflection about transformation through Open Approaches. Too often, we forget that educators are adult learners. Adult educational learning theories are relevant for faculty, administrators, technologists, librarians, and any others. During this session, participants will learn about transformative learning theory; reflect on a transformative learning experience that they have undergone, either personally or professionally; analyze their own process of incorporating Open Education in their practice; share their process in small groups and discuss if or how it

fits with transformative learning theory; and brainstorm ways transformative learning theory could help mainstream openness.

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OER Degrees: Critical Conversations for Successful Planning and Implementation

Una Daly, Quill West, Lisa Young and Preston Davis

Keywords: open educational resources, community colleges, oer degrees, z-degrees, pathways

The first college degree featuring all OER materials was launched in 2013 at Tidewater Community College in the U.S. state of Virginia and named the “Z-degree” because of the zero textbook costs. Students enrolled in the “business administration Z-degree” could save 25% of the cost of earning a degree with this new program. In the last four years, it is estimated that the number of colleges and universities in the U.S. and Canada developing OER degrees has grown to over 65. For many of these institutional efforts, the access and affordability benefits of open education are the motivator for the investment of staff time and money. However, beyond developing courses using OER instead of commercially published textbooks, colleges must organize an infrastructure featuring professional development to create awareness and engagement for faculty, staff, and students; IT support; sustainability planning and policies, and articulation relationships to support all constituents in teaching and learning with OER.

This panel of college leaders will identify critical conversations in the planning process that lead to successful OER degree implementations. Rather than focusing on best practices, this panel will share lessons learned about the challenges of devising a plan to integrate OER degree pathways into institutional practices. Emphasis will focus on the five key stakeholders and how to both support and leverage their OER needs: faculty, staff, institutions, students, and external partners. Audience members will be encouraged to ask questions to guide the panel discussion.

Initiative to OER Implementation and development In Libya

Wisam Benamer

Keywords: learning, educational resources, open access, OER

Regarding to the 2012 Paris OER Declaration the UNESCO defined OER as “Open Educational Resources (OERs) are any type of educational materials that are in the public domain or introduced with an open license... etc.”, where the open access in education need is raised in all the developed countries to help kids and youths in their study stages. In Libya due to the current circumstances since February 2011 a real need existed to help in the education system; UNESCO since 2016 announced the start of OER LIBYA project with the ministry of education. Under the supervision of the UNESCO and as an initiative by our team we have established a plan for better education coping with the current circumstances as well as joining and tightening the relation with the global education community through taking practical steps to use OER in course teaching for one of faculties of university of Benghazi.

The Faculty of Biomedical technology was chosen for this purpose. It is comprised of 5 departments, almost 15 teaching staff members and 20 different courses. Certain project development and implementation steps were taken under the supervision of the UNESCO, and were established through meetings with the teaching staff for raising awareness and execution of action plan. In addition, three workshops were carried out on: why and how to use OER; building OER; OER policies. Furthermore, a specific training program for using MOODLE as OER platform was concluded. Finally, presentations, posters and flyers were published and presented to the whole educational community of the faculty.

Tools & Technologies for Open Education

Collaborative OpenCourseWare Authoring: The SlideWiki Platform

Alexander Mikroyannidis

Keywords: collaborative open courseware authoring, open educational resources, massive open online courses, multi-platform delivery, multi-lingual learning resources, crowdsourcing

A major obstacle to increase the efficiency, effectiveness and quality of education in Europe is the lack of widely available, accessible, multilingual, timely, engaging and high-quality educational material (i.e. OpenCourseWare). The creation of comprehensive OpenCourseWare (OCW) is tedious, time-consuming and expensive with the effect that often courseware employed by teachers, instructors and professors is incomplete, outdated, inaccessible to those with disabilities and dull. With the open-source SlideWiki platform, the effort of the creation, translation and evolution of highly-structured remixable OCW can be widely shared (i.e. crowdsourced). Similarly to Wikipedia for encyclopaedic content, SlideWiki allows to collaboratively create comprehensive OCW (curricula, slide presentations, self-assessment tests, illustrations etc.) online in a crowdsourcing manner.

Automating digital skills classes

Anastasia Samsonova

Keywords: STEM education, Open education resource, Online education, Computer science education

Nowadays tech-related skills are in a very high demand, so is the education. Students and professionals are eager to learn coding, data analytics, algorithms, machine learning and other critical 21st century skills which will make them succeed in life. But to create, run and scale such educational programs usually require lots of time and efforts.

In this presentation I will talk about Stepik, a cloud digital learning environment. Stepik takes care of routine tasks in tech-related courses and helps teachers to focus on more important things in the class. The narrative of the presentation will be built as a sequence of real use-cases on how instructors from all over the world use Stepik. They create, host and grade programming assignments, they check student's database queries and virtual machines, they create interactive textbooks and massive online courses, and more.

External MOOCs on mooin: Experiences on opening up an institutional MOOC platform

Anja Lorenz

Keywords: MOOC platform, moodle, mooin

The MOOC platform mooin is run by the University of Applied Sciences since 2015 to host self-produced MOOCs. In summer 2016, it was also opened up for external persons or institutions searching a platform to host their own MOOCs. What began with personal

requests only has established in a fixed process, supported by an own “mooin Maker MOOC” as a tutorial for external MOOC makers. Until today and still in addition to self-produced MOOCs, more than 20 external MOOCs are published on mooin.

The presentation introduces the process from an exclusively self-used MOOC platform to one that is also open for third-party MOOC makers. In addition, the results of an online survey among the external MOOC makers tell more about their motivation and resources, but also about their experiences with the MOOC platform mooin.

Good learning in less time

Bas Flipsen and Toine Andernach

Keywords: efficient teaching, effective learning, cookbook

One out of three professionals experience high pressure in their work. Together with the constantly changing world of education, where student numbers increase vastly and opportunities of online education are almost endless, the creativity of our teachers are pushed to a new level. How do we let students experience the matter without logistic problems or taking up too much time from our coaches, mentors and teachers? How do we assess our students effectively, without loss in quality?

As a TU Delft Education-Fellow my focus is on the field of effective learning. Most literature is written about increasing the effect in learning practices, though, less is written about how to do this in a more efficient way. In general, three types of literature can be found within this field: (i) literature about Getting Things Done; (ii) literature introducing organizational approaches like Lean into education; and (iii) literature giving teachers tips and tricks on how to teach more effectively and/or efficiently. Unfortunately, literature in the latter group is scarce for the higher-education field and mainly focuses on primary and secondary schools.

To improve teaching quality without overloading the teacher we came up with a simple idea, developing an online cookbook for engineering teachers in higher education. In this cookbook teachers can share their teaching tricks, snippets and approaches with others in the community. We have developed an accessible way of sharing these “recipes” within the teaching community in an online platform. To kick-start the online community we have developed workshops which have been successfully implemented several times at different faculties within the TU Delft. This paper will present the approach, the results of the workshops, and the online cookbook as a result, not only sharing materials but also ideas and teaching approaches.

When do teachers share OER? When it is easy and useful for themselves and others.

Bram Faems

Keywords: OER, OER repository, sharing intention, knowledge sharing, altruism, knowledge self-efficacy, TAM

Teachers who share online homemade teaching materials such as worksheets, presentations or bundles as an Open Educational Resource (OER) also share knowledge

and experience through their teaching material. Successful adoption of OER among teachers requires a large and varied supply of OER, which presupposes that teachers are not only users but also distributors of OER. In 2016, Bram Faems investigated what influences the sharing intention of 1335 teachers that are members of OER network KlasCement.

Both system and teacher are important

Faems discovered that both the teacher's ideas about the online system and the characteristics of the teacher itself are important. For teachers, the system where they find other people's teaching materials should be usable for their educational situation. It also must be easy to use.

But especially the altruism of the teacher is decisive: those who enjoy helping others are more inclined to share online learning resources. However, it is also important that teachers also perceive themselves as being able to make valuable learning resources.

Obstacles

The research shows that teachers also experience obstacles to sharing. First and foremost, they indicate that they do not have enough time to put homemade material online. Also, limited computer skills hinder some teachers to share. Finally, the complex and strict copyright legislation is proving to be a stumbling block.

About KlasCement

Since 1998 teachers have shared concrete teaching materials on KlasCement which is now part of the Department of Education and Training. This year some 75 000 teachers logged on at the site at least once.

X5gon: Cross Modal, Cross Cultural, Cross Lingual, Cross Domain, and Cross Site Global OER Network

Davor Orlic

Keywords: OER, machine learning, adaptive learning, policy making, accessibility, web and information systems

The proposal X5gon stands for easily implemented freely available innovative technology elements converging currently scattered Open Educational Resources (OER) available in various modalities across Europe and the globe. X5gon combines content understanding, user modelling quality assurance methods and tools to boost a homogenous network of (OER) sites and provides users (teachers, learners) with a common learning experience. X5gon deploys open technologies for recommendation, learning analytics and learning personalisation services that works across various OER sites, independent of languages, modalities, scientific domains, and socio-cultural contexts. It develops services OER media convergence including full courses, course materials, modules, textbooks, videos, tests, software, related events, tools, materials, techniques used to support access to knowledge.

Fivefold solutions are offered to OER sites:

- Cross-modal: technologies for multimodal content understanding;
- Cross-site: technologies to transparently accompany and analyse users across sites;
- Cross-domain: technologies for cross domain content analytics;
- Cross-language: technologies for cross lingual content recommendation;

- Cross-cultural: technologies for cross cultural learning personalisation.

X5gon collects and index OER resources, track data of users progress and feed an analytics engine driven by state-of-the-art machine learning, improve recommendations via user understanding and match with knowledge resources of all types.

The project will create three services X5oerfeed, X5analytics and X5recommend and run a series of pilot case studies that enable the measurement of the broader goals of delivering a useful and enjoyable educational experience to learners in different domains, at different levels and from different cultures. Two exploitation scenarios are planned: (i) free use of services for OER, (ii) commercial exploitation of the multimodal, big data, real-time analytics pipeline.

OER World Map Action Lab

Jan Neumann

Keywords: [OER World Map](#), [Action Lab](#), [Collaboration](#), [Start now](#), [Workshop](#), [Monitoring](#), [Reporting](#)

The OER World Map Action Lab is a chance to meet the OER World Map team and discuss your ideas with us, ask us, what you would like to know about the project or even start hacking together immediately. Invited are OER World Map country champions, partners, user and everyone who is interested in the project. The OE Global Conference offers a perfect environment for a regular meeting of our global community. If possible, we would like to turn this activity into a regular event.

The role of AI and Machine Learning in shaping the future of open education

Kyle Bowen and Jennifer Sparrow

Keywords: [machine learning](#), [faculty adoption](#), [innovative teaching](#)

Nearly everyone comes into contact with AI and machine learning technologies on a daily basis. Ranging from the way that Netflix uses our TV-watching habits to provide recommendations, to the sometime comedic auto corrections our smartphones make while sending text messages. The technologies that make these interactions possible can also be used to take on some of the greatest challenges facing open education. Once realized, these technologies will change how schools and experts pursue open education.

For the past three years, Penn State University has been experimenting with a broad range of AI and machine learning technologies that help address some of the greatest challenges facing the exploration, creation, adoption, and sharing of open educational resources. This session will explore practical examples while initiating a new conversation within the community around the opportunities and implications of using smart tools to advance how open educational materials are created and accessed by students.

Open Education with MOOCs about programming for kids

Maria Grandl, Martin Ebner, Wolfgang Slany and Stefan Janisch

Keywords: [MOOC](#), [OER](#), [Computer Science Education](#), [Coding](#), [School](#), [Teaching](#)

Programming is considered as an essential skill in the 21st century. Visual programming languages and age-appropriate development environments allow an easy entry into this field. Nevertheless, it is very challenging to bring those skills in a very short time frame to schools, to their teachers, and to school children themselves. Therefore, Graz University of Technology started a Massive Open Online Course named “Learning to code: Programming with Pocket Code” which is intended to teach coding skills to school children as well as teachers in a very fast, flexible and effective way. The learning content within the course is published under an open license to allow the reuse, modification and dissemination of the materials in different teaching and learning contexts. In this research work, we will present structure and concept of the MOOC. A special emphasis will be given on how the MOOC can be used in school and on the fact, that the content can be disseminated in a variety of ways.

Making a Portal for Digital Educational Resources: meet Wageningen Universities Library for Learning

Marijn Post, Peter van der Togt, Paulien van Vredendaal, Joost van Ingen and Ulrike Wild

Keywords: Digital Educational Resources, Search portal, Metadata mapping, Sharing

Wageningen University & Research (WUR) produces an increasing amount of digital educational resources (DER) due to the introduction of MOOCs, online masters and the creation of course materials suitable for multiple courses. The DERs must be easy to find and access, however, they are scattered on different servers, networks, and personal drives. Hence, it is unknown which and how many DERs are available and where and how they can be found.

As a solution WUR Library, in cooperation with ICT and the Education Support Centre, started working on a new portal to search and find DER made at the WUR. This portal, should not only be a gateway via which teachers can present their materials, but should also inspire them to re-use materials from other teachers. We named the portal Library for Learning (L4L).

Within WUR a couple of repositories containing collections with DER in different data formats were already available (knowledge clips, theses and images). We were able to harvest the different repositories and transform the data into a generic data format. Via our newly created search index (L4L) teachers can search for content in the different DER collections. The DER and its metadata will be managed and stored in the native repository. Updated and new metadata records will be harvested on a regular basis.

Until now, we were able to index four DER collections in the L4L: knowledge clips (source: WURTV2), MSc thesis (source: Theses online), infographics (source: Infographics) and practical clips (Source: Groenekennis).

Although we succeeded in indexing four collections, the road to success was bumpy and we faced many challenges. During our presentation we want to use the L4L as a use case for other organizations working on a similar project. We want to share our technical, communicative and metadata mapping challenges and possible solutions.

Orthography Training with IDeRBlog - an Open Educational Resources Practice

Michael Gros, Christian Aspalter, Markus Ebner, Martin Ebner, Nina Steinhauer, Hugo Adolph, Lena Ankner, Susanne Biermeier, Mike Cormann, Konstanze Edtstadler, Sandra Ernst, Sonja Gabriel, Gabriele Goor, Anneliese Hupperts, Kathrin Irmag, Philipp Leitner, Susanne Martich, Behnam Taraghi, Marianne Ullmann and Martina Wintschnig

Keywords: German Spelling Acquisition, Learning Analytics, Orthography Training, Open Educational Resources, Primary School, Technology Enhanced Learning, Educational Media

The article depicts the blogging platform IDeRBlog as an example of an Open Educational Resources Practice. The exercise databases of IDeRBlog are focussed in the context of orthography training. After briefly outlining Open Educational Resources an overview on how the exercises were researched and reviewed according to an established quality framework is given. This is followed by the Analysis of missing exercises and the creation of IDeRBlog exercises by the project team.

Full Paper: <http://resolver.tudelft.nl/uuid:7aec446a-9ccf-4a2b-8104-ceb7f8d24c66>

Facilitating open textbook publishing at TU Delft: Open Textbook in a Day.

Michiel de Jong and Michiel Munnik

Keywords: Open Textbook, Open Education, Publishing, Copyright, Sharing

The TU Delft Library, in collaboration with other TU Delft education support services, has developed a model version of an open textbook publishing track for academic teachers, entitled “open textbook in a day”. This is an eight-hour workshop designed for university teachers to convert and publish an existing educational document into an open textbook. A pilot workshop will be executed in the first quarter of 2018.

This presentation will include an overview of the content of the workshop that is designed in the form of a learning journey. A report of the first pilot workshop is also presented, with teacher feedback and examples of the open documents that have been produced during the workshop. Lastly, we will briefly touch on possible upscaling of the process and the role that the TU Delft Library and other university libraries could possibly fulfill in open textbook publishing.

DOER: Decentralized Distributable Disk of Offline Open Educational Resources

Nagarjuna Gadiraju, Ulhas Shah, Satej Shende and Mrunal Nachankar

Keywords: OER, distributable OER, offline OER, school server, resource constrained environments, collaborative platform, pedagogy

The presentation is about a specific way OERs are packaged and distributed to improve Internet experience in a resource constrained Indian Public Schools. We collected, curated or harvested the already curated OERs as independently installable Docker Images. We run all the Dockerized containers on a single GNU/Linux host machine along with a container, called Portainer, that could manage other containers. The result is a data center in a single

TB disk. Such a disk was replicated to make more disks and distributed to schools. When we run a PC using such a disk, the machine transforms into a data center. One of the container is a feature rich platform with a workspace for collaborative learning, called Gstudio. GStudio has features for blogging, discussion forums, file sharing, creating a gallery of pictures, videos, creating and delivering online/offline courses, analytics to track the performance. As a result this infrastructure is useful not only as a consumer space but also for producers.

We have so far distributed such disks to more than 500 public schools in four different states of India. One single TB disk could contain: Wikipedia (55GB), KALite website (36GB), all Phet simulations, NROER (300GB), Sugar Desktop (1GB), Owncloud, Turtle, Snap, Edgy, Software Downloads (20GB) and Gstudio with 40 units of online courses (44GB).

A typical public school in India has a computer lab with about 10 computers, usually connected through a LAN. After converting one of the PCs into a server transformed into a data center, upto 20-30 students could use the available 10 terminals. The Gstudio has a special feature to log more than one student at each terminal, called buddy login. Performance analytics are taken for each student separately, though they were sharing the same terminal.

A smart journey through OER

Nicole Will, Marijn Post, Sylvia Moes and Hilde Van Wijngaarden

Keywords: OER adoption, visualisation, conceptual mapping, OER repositories

Despite the increasing amount of open educational resources (OER), their adoption by teachers remains low. One of the reasons is that it is challenging and very time consuming to find reliable, relevant and qualitative OER.

Library staff do find their way in the jungle of OER, and through the use of new technologies, they can guide teachers in finding their way to OER and integration of OER in education. Currently, as a pilot, the TU Delft Library, VU and WUR (as members of the OOO library group) developed several techniques and tools to support and simplify OER searching. During an interactive discussion we would like to share the possibilities and findings of these and, in addition, we would like to investigate whether there is a need to scale up such processes for higher education. The discussion will help us mapping the needs of the OER searchers and will contribute to the development of future and running projects like “SURFsharekit” the portal created by SURFnet.

Topic Oriented Open Learning (TOOL) platforms: a novel approach for open education – experiences of two initiatives

O. Paul Gobée and Pim B. Bellinga

Keywords: open educational resources, OER adoption, topic-oriented, domain model, TOOL

Independently and unknowingly of each other, in two different subject fields, open learning platforms arose that appear to form a specific new type of platform, that address similar needs and have similar set-ups, and differ from the presently common learning platforms. We discuss the set-ups of these two platforms and the experiences with their usage and extend this to a discussion about the value that these types of platforms could offer for

promotion of open education in general. This new platform type that we dubbed ‘Topic Oriented Open Learning’ (TOOL) platform, combines domain specificity with a focus on open learning. Its domain specificity is modeled after the many online domain specific commercial platforms, such as platforms for booking hotels or flights, getting travel information, sharing stuff, etc. The principles of those platforms are applied to facilitate Open Learning. They offer not only Open Educational Resources (OER), but also tools for teachers and students that support the actual learning process: tools to exercise and interact with the subject matter. Such learning platforms exist commercially already, but not yet for open education. On the other hand, existing open education platforms usually only present OER but do not support the actual learning process and are not or only to a certain level domain specific. The combination of ‘domain specificity, open, and facilitation of the learning process’ is new. TOOL platforms can be used alongside institutional Learning Management Systems (LMS), where the LMS focuses on the data connected with the institutional processes and the TOOL platforms on the subject matter. We foresee TOOL platforms to offer a unique opportunity for promoting of open education because they are not only open, but also offer specific added value to teaching and learning in specific domains that can be directly included in the daily teaching routine.

Full Paper: <http://resolver.tudelft.nl/uuid:92128d36-7e3f-40d0-86b1-4b67bd24732f>

A Qualitative Study of Open Educational Practice using Jupyter Notebooks

Tara Lifland and Lorena Barba

Keywords: [connectivism](#), [constructivism](#), [open pedagogy](#), [open educational practice](#), [teaching and learning](#), [engineering](#), [coding](#), [python](#), [open culture](#), [open research](#)

Research efforts in the last decade have focused on the effect on student outcomes from using Open Educational Resources (OER). We are interested in whether (some) OER may also influence students in their attitudes and capacities for collaboration, community involvement, and open practices. The aim of our study is to discover how a new OER medium, Jupyter Notebooks, may (or may not) impact attitudes of undergraduate engineering majors toward sharing and openness.

In this context, we describe ‘openness’ as a culture that supports making your code, data, and other resources available to others, inviting collaboration. All of the resources accessed by students throughout the course are CC-BY, but what makes the functionality of Jupyter notebooks different from a standard open textbook is the ability for students to play with and deploy code in the platform. This is an exploratory study, listening to student voices to see if, when given the opportunity to use the legal permissions associated with the open content (e.g., copying and pasting lines of code, developing their own notebooks), they interact with the content in new ways, and if/how they choose to share their work.

This study takes a look at 52 sophomore-level students in Professor Barba’s Fall 2017 Engineering Computations Course at the George Washington University to answer the question: how might the utilization of technology that enables students to exercise the different open permissions (Jupyter Notebooks), affect learners’ attitudes toward sharing and create a change in culture toward openness?

Throughout the semester, learners are given a variety of opportunities to work together and share their work/resources with peers and forming their own PLN (personal learning network). We will review the learners' participation in Slack channels (PLN), and their new attitudes toward sharing at the end of the semester through group and individual interview discussions.

Improving Learners' Experience by Adopting Course Maps

Yu-Lun Huang and Ta-Wei Li

Keywords: Course Map, OCW, MOOC, learner guidance

In 2008, fourteen top universities in Taiwan established Taiwan Open Courseware Consortium (renamed as Open Course Consortium, abbreviated TOCC, in 2014) to create a common platform for sharing and promoting open courseware. TOCC is intended to encourage and foster its member universities to create more open resources for learning through the online platforms via TOCC as the portal. During the past few years, under the promotion by its member universities, millions of open courseware have been created in either OCW or MOOCs format. Learners can now study anywhere anytime as the courseware has also greatly lowered the barrier of study. However, massive volumes of courseware also confuse learners in a way they have to spend more time surfing around the courseware they already learned and may not still fully understand what will be given in the course even syllabus and introduction are given for each course. To provide a more friendly guidance for learners to quickly manage and locate the exact courseware of interest, TOCC encourages the twenty-two university members and two high school members to make a course map for each produced open courseware. Currently, we have several course maps designed for high school students and college freshmen in Taiwan. With such guided maps, learners can now select among smaller units, combine them and create their own courses. More detail results will be given in the final poster.

Open Educational Practices/Open Pedagogy

Preparing for Open Educational Pedagogy

Amit Dhakulkar and Nagarjuna Gadiraju

Keywords: digital literacy, connected learning, constructionism, collaboration, open educational pedagogy

While most of the courses focus on the Office Suite to provide digital literacy, we designed a course for creative citizens. This is achieved through an innovative blend of constructivism, constructionism and connectionism. The course imparts the required skills for using the media to learn not the media per se but that the media is a good and potential medium for learning Science, Mathematics and language skills through making, sharing, seeking and networking.

A series of challenges are placed before students which they have to work through by collaborative doing and discovering. The students are assessed not only for the tangible outcomes but also for the process and quality of engagement. The new media in the form of a school server is very effective in exposing the invisible and implicit aspects of the process of engagement to the foreground making it amenable for assessment. The course is designed to explore and exploit this potential of the new medium so that the formative assessment becomes easy and not a problem to the teacher. Self, peer and mentor assessments are employed in the evaluation. The school-server provides a platform for the collaborative interactions to take place in the classroom. The platform also doubles up as a place for creation of a digital portfolio. The use of local language for interactions helps the learners overcome the barrier of English language as a entry for working with computers.

Currently the I2C course is being offered in over 500 government schools in 4 states in India under the CLIX project. The analysis of data from these schools provide a rich picture of the learning taking place.

Innovative practices for sharing and promoting OER through Canvas and Blackboard

Barbara Illowsky and W. Preston Davis

Keywords: Learning Management System, Course Shell, Course Design, Instructional Design, Z-degree, Open Textbooks

This session will cover two initiatives that promote OER through integration with different learning management systems: California Community Colleges with Canvas and Northern Virginia Community College with Blackboard.

The California Community Colleges (CCC) educate over 2 million students per year. The CCC Online Education Initiative (OEI) was developed to increase the quality of online instruction and learning, provide academic and student services inside online courses, and to

develop a course exchange to assist students in completing the courses they need to earn their degrees. Within that framework, the OEI developed OER-enabled Canvas sample course shells for all of the OpenStax open textbooks, as well as a non-specific shell for any OER or commercial textbook. The shells are WCAUG 2.0 AA compliant and are aligned to the OEI design rubric developed by CCC faculty teaching online. They are shared in Canvas Commons with a Creative Commons Attribution License. The shells can assist faculty in incorporating OER and also provide an easily adopted sample course shell for faculty looking for support in technology-assisted instruction.

Northern Virginia Community College (NOVA) is one of the largest 2-year colleges in the USA. NOVA is one of the first institutions to develop a degree pathway built with open educational resources. NOVA's OER courses embed openly licensed content into the Blackboard learning management system (LMS), and are supplemented with open access materials and free digital library resources. By integrating OER into the course design process, and utilizing the Blackboard Learning Management System to deliver course content, NOVA was able to expand OER adoption across the college. Since launching our first OER courses in 2013, NOVA students have saved nearly \$4 million dollars. NOVA will share the benefits and limitations of Blackboard, and how the LMS enabled the development and expansion of OER courses at the institution.

Quality OER at Scale in India: The Curriculum, Interactive Tools and Platforms of the Connected Learning Initiative

Brandon Muramatsu

Keywords: K-12, Open Education, Open Educational Resources, OER, Open Education Practice, OEP, Open Source, Interactive Tools, English, STEM, Teacher Professional Development, India, Open Education Policy

The Connected Learning Initiative (CLIX) is a collaboration between the Tata Trusts (Mumbai, India), Massachusetts Institute of Technology (MIT, Cambridge, Massachusetts, USA) and Tata Institute of Social Sciences (Mumbai, India). CLIX improves the professional and academic prospects of high school students from underserved communities in India through developing and delivering active-learning, open educational resources (curriculum and tools) and open source platforms in mathematics, science and English across. CLIX provides high school students from underserved communities opportunities for participation in quality education offerings at scale through the meaningful integration of technology with contemporary pedagogy.

CLIX is in approximately 460 schools, with 30,000 students and 3,300 teachers in 8th and 9th Standards in Rajasthan, Telangana, Chhattisgarh and Mizoram in India. Students and classes in CLIX schools are taking OER in topics such as Beginner and Elementary English, Geometry, Health and Disease, and Motion. CLIX includes a teacher professional development effort that leverages both face-to-face and digital/virtual opportunities to provide support and engagement for teaching with contemporary (open) pedagogical approaches (OEP). And CLIX has a significant technology development effort building interactive tools and open source platforms.

CLIX is at the same time an experiment in developing a contemporary curriculum, built on OER and OEP that can sustainably transform Indian secondary education; capacity building with educators, organizations, schools and states to support these activities; and a large scale implementation of OER and OEP.

This session will discuss the challenges from an open education perspective with developing and implementing an OER curriculum and open source software. And will explore the tensions between strong philosophical beliefs about OER and open source, the practicalities of capacity at all levels and implementation realities.

Building a Culture of Open Pedagogy from the Platform Up

Cailean Cooney, Amanda Almond, Jill Belli and Jeremy Seto

Keywords: open-source platforms, cultural change, communities of practice, open educational resources, open educational practices

New York City College of Technology (City Tech) is one of 24 colleges comprising the City University of New York (CUNY), the United States' largest urban public higher education institution legislatively mandated as the "vehicle for the upward mobility of the disadvantaged in the City of New York." Fulfilling this mission is vital to the success of City Tech students and requires the provision of easy, consistent access to course materials across digital platforms. Panelists will trace how City Tech has been at the vanguard of transforming teaching and learning through the foundation of two significant open pedagogy initiatives on its campus. In 2011, City Tech launched the OpenLab, an open-source platform where students, faculty, and staff meet to learn and share ideas, providing opportunities for the entire college and the public to connect and collaborate. This can be difficult to achieve at an urban commuter campus. In 2014, City Tech established an OER professional development program to reconceptualize course materials and lower textbook costs for students. These two initiatives are especially noteworthy given their rooting in local needs: both have been conceived and implemented for and by the City Tech community.

Panelists include the Coordinator of the OER professional development program, the Co-Director of the OpenLab, and two faculty fellows in our OER professional development program. We represent distinct disciplines (Library, English, Biology, and Social Sciences) and offer unique interdisciplinary perspectives and approaches to open education. Critical to our institution's shift to open pedagogy is our commitment to fostering learning communities across the college, including faculty communities of practice not bound by rank, department, or disciplinary silos. Panelists will share how their work, individually and collectively, has strengthened City Tech's commitment to open pedagogy and has laid the groundwork for significant cultural change across the college.

Beyond practices: Values, challenges, and tensions associated with using OEP

Catherine Cronin

Keywords: open education, open educational practices, OEP, OER, higher education

This study explored whether, why, how, and to what extent academic staff used OEP in one higher education institution. The study aimed to clarify factors that both encourage and inhibit the use of OEP, as well as to identify and illuminate the dimensions shared by those using OEP ('open educators'). Data was gathered from a broad range of educators at one university in Ireland through the use of semi-structured interviews (n=19) and a survey (n=132). Using constructivist grounded theory, a model of the concept "Using OEP" was constructed showing (i) the foundational digital practices of open educators, (ii) open educators' use of digital tools and open content, and (iii) the dimensions shared by open educators, i.e. balancing privacy and openness, developing digital literacies, valuing social learning, and challenging traditional teaching role expectations. Despite experiencing challenges and tensions, the benefits of using OEP cited by open educators in the study included improved learning design; connecting with current issues; expanding the scope of learning beyond the classroom/university; and enhancement of students' learning. Overall, the use of OEP was found to be complex, personal, contextual, and continually negotiated. The findings suggest that research-informed, collaborative, and critical approaches to openness are required in order to support staff and students, and in particular, to ameliorate the challenges and tensions associated with enacting open educational practices in higher education.

Conceptualising OEP: A review of theoretical and empirical literature in Open Educational Practices

Catherine Cronin and Iain MacLaren

Keywords: open education, open educational practices, OEP, OER, theorising OEP

Conceptualisations of open educational practices (OEP) vary widely, ranging from those centred primarily on the creation and use of open educational resources (OER) to broader definitions of OEP, inclusive of but not necessarily focused on OER. The latter, referred to in this paper as expansive definitions of OEP, encompass open content but also allow for multiple entry points to, and avenues of, openness. This paper explores the theoretical and empirical literature to outline how the concept of OEP has evolved historically, and from a critical perspective. The study aims to provide a useful synthesis for open education researchers and practitioners.

Full Paper: <http://dx.doi.org/10.5944/openpraxis.10.2.825>

Towards free-range professional development of HE teachers

Chrissi Nerantzi

Keywords: professional development, cross-boundary practices, collaborative open learning, open educational practice

In this presentation the implications and opportunities for the professional development of HE teachers will be explored linked to the outputs of a phenomenographic study in which the collaborative open learning experience in informal cross-institutional development courses was studied in depth and brought new insights. The findings of this study revealed two distinct collaborative learning patterns, selective and immersive collaboration, and show that open and collaborative and cross-boundary practices and communities motivate and empower academics to engage, change and often transform their practices as a result of

their engagement in such initiatives. How can academics and institutions harness such alternative free-range professional development practices and what could this mean for individual institutions, their professional development offer and for learning and teaching in higher education more widely? Come along to find out.

How can the OER community put the UNESCO OER Action Plan into practice?

Christian M. Stracke, Jane-Frances Agbu, Tel Amiel, Daniel Burgos and Zeynep Varoglu

Keywords: Open Education, OER, Action Plan, UNESCO and ICDE Chairs, World OER Congress

This Panel addresses the theme "Open Educational Practices/Open Pedagogy" to improve Open Education for better learning quality. It is organized by the UNESCO and ICDE Chairs in OER (www.oerchairs.net) in cooperation with all interested organizations such as Open Education Consortium (OEC), Creative Commons (CC), UNESCO IITE and ICORE. Leading question is: "How can the OER community put the UNESCO OER Action Plan into practice?" The expert panel will discuss how innovative open pedagogies and open educational practices using OER can support and increase the implementations and practices of the Ljubljana 2017 OER Action Plan adopted by the UNESCO World OER Congress 2017.

Main goals are the sharing and exchange of experiences and their discussion among the experts on the panel as well as the whole panel audience: Therefore all panel participants are invited and encouraged to join and contribute to the debate.

The panel of 60 minutes combines short initial introductory statements by the invited panel experts with open questions from the moderator and the audience.

This panel is a first follow-up activity of the common panel "The Role of the OER community" by the UNESCO and ICDE Chairs at the World OER Congress 2017 in Ljubljana.

Invited experts and organizations are: Christian M. Stracke, ICDE Chair in OER, Open University of the Netherlands; Jane-Frances Agbu, ICDE Chair in OER, National Open University of Nigeria; Tel Amiel, UNESCO Chair in Open Education, University of Campinas, Brazil; and Daniel Burgos, UNESCO Chair in eLearning, Universidad Internacional de La Rioja, Spain.

Intended audience are all experts, practitioners and novices sharing interest in the improvement of Open Education by innovative open pedagogies and open educational practices using OER: Contributions by conference participants as well as by online participants commenting via twitter are most welcome and encouraged.

Changing Minds by Using Open Data

Erdinc Sacan and Robert Schuwer

Keywords: Open Data, Practice Based Research, Bildung

Data is becoming more and more important in society. At Fontys University of Applied Sciences, School of ICT, students get educated to master topics like data analysis, data management and so on. In many cases the data to practice upon are artificially created. Using real life data in some cases is already happening, but these are closed data sets coming from private companies. Inspired by the work of Atenas and Havemann, a study is

performed to find out about the side effects of using available open governmental data sets. These side effects consists of contributing to skills like critical thinking when analyzing these data, describing social-economic and cultural patterns in the Netherlands. In the session the approach and results and lessons learned of this (currently running) study will be presented.

Getting started with Open Education

Fred de Vries, Marjon Baas and Marloes Klumpers

Keywords: implementation, policy, open education, cases, newcomers

In this workshop we will discuss and apply principles of Open Education in the context of your own role in your own institute in promoting and implementing different scenario's for Open Education.

Subjects to be covered are:

What is OER,

What is OEP,

What are (open) MOOC's,

What are CC licenses and how to use them

Where to find OER for your courses.

In the workshop we will use a toolkit developed by Ouwehand and Schuwer in the SIG Open Education of SURF (The Netherlands) (under an CC-BY licence). If Creative Commons is to organize their own workshop during the conference, the CC-licenses part can be skipped. In the preparations for the workshop alternative open learning resources will be explored. As Saxion University of Applied Sciences adopted Open Education recently, we are to include our own experiences with sharing learning resources, the building and sharing of MOOCs and our first lessons learned.

As a new member of the Open Education Consortium we are proud to run this workshop for other newcomers. We adopt a hands-on approach exploring and elaborating on existing cases from participants and ourselves, to make the transfer to actual change in ones own organization realistic.

Autonomy & Authenticity: Open Pedagogy as a Motivator for First-Year College Students

Jaime Wood and Nicole Rosevear

Keywords: Authenticity, motivation, autonomy, open pedagogy, student agency, achievement

While instructors often assume that first-year college students are not ready to make decisions about their learning or to present work to an authentic audience outside the course, giving students these opportunities early in their college experience has a motivating effect, encouraging students to challenge themselves and providing them with a persuasive answer to the question, "Why does this material matter?" Open Pedagogy provides a structure that supports students in having some autonomy around how they complete assignments and in doing work that will be publicly available to a real audience so that their efforts have a purpose beyond the goal of demonstrating their learning or proficiency of learning goals or

outcomes. In this 90-minute, interactive session, participants will have the opportunity to transform a “disposable assignment” they currently use into a “renewable assignment” that will live on after the class ends and will have an audience and purpose that’s relevant to the world at large. We will also provide first-hand examples of open pedagogy assignments and the products that come forth from community college students in developmental and first-year college reading and writing classes from Clackamas Community College in Oregon, as well as examples from other disciplines, in order to show a wide range of open pedagogy options. The session will also address questions about Creative Commons licensing of student work, making judgments about quality and distribution, and providing students who are not comfortable sharing their work with alternatives.

Integrating on-campus and professional education with the help of MOOCs or other types of virtual classrooms

Janina van Hees, Ning Ding, Joost Groot Kormelink, Bastiaan van der Klis and Otto Spijkers

Keywords: Online learning, Connecting with professionals, Projects, life-long learning

Lifelong learning (LLL) is high on the political agenda of many governments. It is seen as a requirement to remain competitive, as a way to respond to fast technological changes, and as an instrument for enhancing social inclusion.

Institutes for higher education are expected to play an important role in this respect.

However, the main focus of most traditional institutes for Higher Education is still on providing traditional forms of education (lectures, workshop, seminars) to students enrolled in Bachelor or Master programmes.

A specific approach might be to integrate on-campus and LLL by means of virtual classrooms. This might even lead to a win-win situation: students learn from professionals and vice-versa.

In this panel discussion, we will share the experiences (including stumble blocks) in this respect from a number of Dutch innovation projects that all use virtual classroom practices. These projects all form part of the Dutch subsidy scheme ‘Open and online education’ from the Dutch ministry of education and SURF but use different approaches like:

- a MOOC for cooperation between students and professionals;
- Web-lectures which are also promoted for professionals (like legal experts and doctors);
- Open Research /joint assignments;
- Offering on-campus courses also simultaneously in an online format
- Knowledge clips and bites which will be made available to the public at large via YouTube and other online channels.

The 4 presentations from the panel will each last a few minutes, each describing lessons learned (2-3 slides). After that, the participants will discuss in various groups specific approaches, challenges and opportunities when it comes to integrating on-campus education and professionals from an institutional and employers’ perspective.

Participants will use sticky notes. These will be shortly summarized by the chair.

Mind of the Universe Online Learning Experience

Johannetta Gordijn, Thomas Hurkxkens, Joasia van Kooten, Kris Stabel and Janine Kiers

Keywords: Online Education, Open, Media, MOOC

We would like to present the Online Learning Experience that is being created by three universities, Erasmus in Rotterdam, Delft and Leiden. This Online Learning Experience makes use of the open source science material developed by the VPRO for their documentary series Mind of the Universe. It is to be launched in April 2018.

In this Learning Experience lecturers of the three universities will further elaborate on the cutting-edge topics that were discussed in the 2017 Minds of the Universe series and they will shed their light on ethical dilemmas. Participants will be able to choose at least one topic to study. They will be supported to critically reflect so they can leave their own echo chambers and find solutions for the dilemmas presented.

The experiment provides the opportunity to explore different ways for public broadcasting and universities to collaborate and enrich both media and education.

Female Role Models in STEM: A Survey of MIT OCW's Video Resources

Joseph Pickett

Keywords: Women, STEM, Video, Role Model, Recruitment, Retention

While women have made substantial gains in positions of responsibility in many walks of life, their numbers still lag as STEM researchers and instructors. There is evidence that recruitment and retention of women in STEM improves as women become accustomed to seeing other women in STEM roles. So the question presents itself: How might OER help girls and women take interest and persevere in STEM fields? I will argue that video can make a powerful contribution to this mission and that seeing women in charge of a classroom, expressing their fascination with their chosen field of study, and discussing their research can have a positive impact on younger women contemplating career options. Over the years MIT OpenCourseWare (OCW) has amassed a substantial video library of lectures, recitations, interviews, and presentations. Overall, there are more than 4,000 video files on the site. The great majority of these are in STEM subjects. This portfolio now includes significant numbers of videos featuring women in STEM roles, with women instructors teaching their subjects, expressing excitement about their work, and reflecting on their careers. OCW also has videos of female students giving presentations on their STEM course projects, working productively in teams, and offering their reflections on their experience in STEM classes. My presentation will survey the kinds of OCW video resources (lecture, interview, etc.), the subject areas in which women appear in video (biology, chemistry, etc.), and the different roles of the participants (professor, TA, student). A brief video sampler will show some of these women in action. The presentation will then be followed by a discussion of the value of these videos in encouraging women to pursue STEM careers, what new kinds of video resources might be created to enhance such an effort, and how resources like these might best be shared.

Open Educational Resources: the learning model and sustainability strategy matter

Kara Van Dam and Peter Smith

Keywords: OERs, competency-based education, CBE, learning model, adult learners, nontraditional learners, cost, sustainability, openness, accessibility

In 2015 - 2016, our university completed the initial stage of an initiative to provide students with Open Educational Resources - course materials available online at no cost to students - through the implementation of OERs across the undergraduate and graduate curriculum. In the initial implementation, we sought to expand access, reduce costs and improve flexibility for students—objectives that have been achieved. Students in 2016 did not have to spend \$19 million USD that they would have had to spend previously, and had access to all the learning resources needed with a click of a mouse. Our focus in this presentation, however, will be on how we plan to meet the challenges of sustainability, and better integrate our approach to OERs with our learning model.

Open academic e-textbooks for STEM - lesson learnt

Karolina Grodecka, Agnieszka Chrzęszcz and Jan Kusiak

Keywords: e-textbook, open educational resources, lesson learnt

In this presentation authors will draw a reflective picture from 4 years of development open academic e-textbooks for STEM subjects at AGH University of Science and Technology. Focusing on the numbers - 14 e-textbooks built from 500 modules, 12 K users monthly, 806 users daily, gives some insight into the impact on academic community. However, four-year span of the project's development and maintenance have required to redefine some of the primary assumptions.. In order to receive feedback from the users a short survey among academics and students will be carried out, to learnt on the use and prospects of the service. The main findings will be discussed in the presentation.

The authors will describe selected challenges with the focus on a technology, usability and openness and will explain the rationale behind each corresponding area. Firstly, the modular structure of the e-textbooks will be outlined to reflect technical effectiveness and usability of the platform. Secondly, the consequences of the 7 different formats will be discussed. Thirdly, the internal rules for writing the e-textbooks (grammar of the content) will be presented. Finally, the general attitudes of the academic teachers to the content development will be discussed.

The authors will share AGH UST's findings and reflection upon testing how students and academic use e-textbook project and to which level primary assumptions met the actual needs of the users.

Collaborative design of Open Educational Practices: An Assets based approach

Kate Miller, Ronald McIntyre and Gary McKenna

Keywords: Collaboration, Design, Assets based approaches

This paper addresses how to design open educational resources (OER) with community stakeholder groups so they can be shared with other community practitioners openly, online and repurposed for other contexts. As academics who focus on youth justice and community development engaging with community stakeholder groups to conduct research and shape curriculum development is familiar. With curriculum emerging from and through a deeper understanding of context and developed in for and through practice. The paper looks at the challenges of applying this approach to the development of OER.

The paper draws on a partnership between five European Institutions of Higher Education and a range of community stakeholder groups. Through these we have developed ten case studies that investigate a range of different assets based approaches. Through what we term Collaborative Open Educational Resources (COERs) the partnership will develop these ten case studies into a suite of OER which will speak to community workers, who are interested in implementing assets based approaches to community participation, in a wide range of different contexts. Assets are contextual and vary across time and space. We argue that they are negotiated in that one can not decide what an asset is or how it might operate in a given context without engaging in deliberative discussion within that context.

Our approach is to work with each locale to make the tacit knowledge within practice explicit, the assets are surfaced so one can unpick wider lessons from the local or national contextual factors. Here the question of open relates to pedagogic practice, of using established disciplinary approaches to opening up content, while also being mindful of and open to use practices beyond the original context.

Full Paper: <http://dx.doi.org/10.5944/openpraxis.10.2.833>

Developing and revising OER by students – Lessons learned through an open educational practice over 3 years

Katsusuke Shigeta

Keywords: Open educational resources, Open educational practices, Open pedagogy, Information literacy, Learning by doing, Flipped classroom, Distance Learning

Open Educational Resources (OER) are being developed and utilized in higher education institutions and various organizations on the globe. In this presentation, the open education practice in a freshmen class in a university in Japan will be introduced. The students in the class were encouraged to develop their own text-based OER based on their interests of the topics concerning information literacy in modern society (cyber security, copyright issues and social networks, and so on). At the same time, they learned the basics of information society and instructional design which is needed to create OER by flipped-classroom settings. The groups for the sharing and reviewing materials were set and the students conducted peer-review to improve their OER each other. From 25 to 30 students registered the class on each

year through 2014 to 2016 including the distance learners from the other university connected by the videoconferencing system. By the comments of the students, it is revealed that they surprised the quality of OER created by the other and senior students, and learned the knowledges of the topics, the methodology how to create OER. Another student commented that she learned well to create OER to teach the topics that she is interested. The assessment of these OER revealed that the quality of OER improved every year. As the opportunity how to learn the topics deeply and actively, this open pedagogy based approach through the creation of OER is considered to be an important experience for students and to be an effective method to increase student outcomes utilizes existing OER as meaningful learning resources.

Fostering Open Awareness: Transformation of classroom teaching towards Open Educational Practices in Higher Education

Kerstin Mayrberger, Franziska Bellinger, Nina Rüttgens and Tobias Steiner

Keywords: open educational practices, open awareness, open education, higher education, professionalization

The presentation will discuss the concept of openness as a possibility to transform standard educational practices in higher education towards Open Educational Practices. The authors see the transformation of classroom teaching towards Open Educational Practices (OEP) as a challenge that can be addressed by raising awareness towards openness of all participants within teaching and learning settings in the formal context of higher education. We argue that the implementation and promotion of Open Educational Practices within higher education necessitates a debate that goes beyond a perceived current focus on learning materials (the production of OER) alone. A change of traditional role-relationships between teachers and learners and the emergence of an open learning culture, as a crucial element of this altered relationship, to us appears to be necessary so as to realise the idea of openness and OEP in formal learning contexts. First, we want to address this transformative process with its chances and challenges via a brief introduction of our understanding of open education and OEPs in higher education. Second, we want to introduce a current example of emerging open practices taken from the German context of Hamburg Open Online University (HOOU), a collaborative project of Hamburg's six public HEIs, as well as the Ministry of Science, Research and Equality and the Multimedia Kontor Hamburg (MMKH). As a conclusion, we then provide an outlook on further steps that ought to be taken to encourage teachers and learners in higher education towards an implementation of open Education.

Sharing experiences of creating blended courses with third party video materials

Kevin Dunn, Sofia Dopper, Johannetta Gordijn and Wiebe Dijkstra

Keywords: video, reuse, third party resources, blended courses

The purpose of the panel discussion is to open the floor to all attendees to hear and share experiences, as teachers, of creating blended/flipped courses where the video material was not created by themselves. We will start the panel discussion with a very short presentation of 10 minutes, based on the experiences and lessons learned by TU Delft teachers in at least 4 courses from a variety of faculties. Two courses are currently running and almost

completed, and two courses will be completed before April 2018. Our presentation will also cover results from student surveys regarding their experience of these 3rd party resources. We then plan to open the floor using targeted questions to keep the discussion focussed.

We will begin with short statements with yes/no answers to help break the ice. Then we will pose more in-depth questions so participants can share their experiences. These questions include: where do you find your open video materials; which criteria are used for their selection; at which places are they integrated into your course and for what purpose; and what have been the experiences of students using these materials?. Our aim is to generate enthusiasm among teachers that want to start blending their own education, and to collectively exchange practices on the selection and use of these materials. Participants will leave the discussion having access to a shared document that captures the points from the discussion: pros and cons, dos and don'ts, where to find and how to select these video materials.

Opening the curriculum through Open Educational Practices: International Experience

Laura Ritchie

Keywords: Student-led, Collaboration, Co-learning, Curriculum development, Open curriculum, Open educational practice

An international learning initiative focusing on student agency began with a link facilitating OE-enhanced teaching between a UK university and a US high school class. It became an international trip organised and funded by five UK students and their teacher, travelling to California to teach and perform music across formal and informal learning settings.

The project is now a credit-bearing class, retaining the original initiative's openness within the university curriculum where final-year students collaborate with the teacher, self-organising to design and plan curricular details from travel logistics to musical interactions. Students engage in heutagogy, demonstrating the highest levels of autonomous, personal learning in this co-learning environment. Their assessment, a reflective journal, encourages engage with deeper learning processes.

The original trip was documented as an eBook including 10,000 student-authored words telling their collaborative learning journey. The book was published without DRM an accessible model for other students and educators.

Full Paper: <http://dx.doi.org/10.5944/openpraxis.10.2.821>

The ORCHID project: Open Research Champions for Women's Empowerment in Development Contexts

Leigh-Anne Perryman and Beatriz de Los Arcos

Keywords: women's empowerment, OER, OEP, open educational resources, open educational practices, open research, sustainable development goals

Digital inclusion can contribute to women's empowerment via the expansion of choice and capability (Gurumurthy and Chami, 2014). More specifically, OER and OEP have the

potential to increase the scale of digital inclusion's impact on women's empowerment by opening access to resources, communities and peer support and, through open licensing, allowing resources to be freely adapted for diverse contexts and needs (Perryman and de los Arcos, 2015). However, despite the transformative potential of ICTs, OER and OEP for marginalised women there remain substantial barriers to women's participation in the digital world in the global south (World Wide Web Foundation, 2015). In addition, there is a paucity of female researchers in the developing world and research on women's needs tends to be conducted on, rather than with those women.

The ORCHID (Open Research Champions for women's empowerment In Development contexts) project is designed to help remove some of the barriers to women's digital inclusion. Still in the planning stage, the project involves 80 female 'Research Champions' – aspiring researchers from the global south – receiving Masters-level distance learning research training, mentoring by experienced female academics, skills and career development, and support in conducting community-based research into marginalised women's needs in their home countries. Partners from several global south nations, including members of the Virtual University for Small States of the Commonwealth (VUSSC), will support these Research Champions, in addition to collaboratively developing open courses in women's empowerment-related research and joining the mentors and research champions in a global community of practice with peer support and advocacy functions.

The ORCHID project has not yet gained funding. However, in sharing the project plans with the OE Global community we hope to enrich those plans, build interest in ORCHID, attract potential collaborators and mentors, and explore ways of giving the project pre-funding momentum.

Didactical Challenges for an Open Online Course to Inform Future Students ICT

Lennart de Graaf, Lieke Buiks and Robert Schuwer

Keywords: Pedagogy, Open online course, Study orientation

To provide future students with a good picture of the programs offered by Fontys University of Applied Sciences, School of ICT in the Netherlands, various activities are organized, such as open days where interested high school students can experience examples of lessons, supplying information to study counselors and interviews with prospect students to find out about their motivation. Despite these activities, the dropout in the first year of the program is too high. Over the period 2010-2015, 29% of the first year at FICT left the program prematurely. Current research shows that starting with a wrong picture of the study is a major cause of failure. To overcome this problem, an open online self-study course is being developed. By taking this course, prospect students can create a more realistic picture of a study at FICT and the competencies that are required. The course will be part of the total package of information activities. The biggest challenge for this course was to mimic the didactical model used at Fontys, of which learning agency for students and group work are important elements. The course will be published in January 2018. In our presentation we will elaborate on the design of the course, the challenges we were facing and the first experiences with the course.

Online learning for SMEs on business model tooling: development and evaluation.

Mark De Reuver, Timber Haaker and Martijn Cligge

Keywords: SME, MOOC, Business model tooling, e-learning, business model innovation

While business model innovation is becoming mainstream in big corporations, small and medium sized enterprises (SMEs) still struggle to put it into practice. Knowledge on business model innovation in academia is rapidly increasing, and practical tools to make this knowledge accessible are becoming available too (e.g. Strategyzer, businessmakeover.eu). What is largely lacking, however, are educational resources for SMEs for learning about business model innovation and supporting tooling. Therefore, this study considers the development and evaluation of five Massive Open Online Courses (MOOCs) on business model innovation for SMEs. The MOOCs were designed adhering to six design principles. The design principles were defined based on exploratory interviews with SMEs and a literature review on e-learning for SMEs, and supported a MOOC design that should be accessible to SMEs with different (educational) backgrounds. Evaluation of the design principles was done through a combination of quantitative and qualitative analysis and showed that the MOOCs adhered to most of the design principles. This study has revealed that it is possible to transfer more complex theoretical concepts into a more practically oriented set of MOOCs by adhering to the six design principles. The design principles could be used by future researchers and practitioners who also want to make more theoretical concepts from academic research more accessible for more practically oriented learners, who sometimes have secondary education as highest level of education.

OER in Low-Resource Contexts: Supporting our Teachers in Pedagogy and Instruction

Navya Akkinapally, Laura Danforth and Richard Tibbles

Keywords: equity, offline, k-12, teacher training

Learning Equality has developed an education technology platform, Kolibri, which is comprised of an offline repository of quality open educational resources (OER), tools to support content curation and pedagogy, and an integrated learning management system. To help bridge the digital divide and promote equity, Kolibri is designed to support educational practices in low-resource and offline settings and to be used by teachers of all experience levels. Through the use of Kolibri, teachers around the world have increased access to quality instructional materials and, with them, the opportunity to improve teaching and learning practices in the classroom. To support teachers with a wide range of skill and experiences, Learning Equality is developing a teacher toolkit with training materials and resources to be used in parallel with the Kolibri platform. This toolkit is intended to guide administrators and educators in their pathway for integrating Kolibri into daily instruction using blended learning models. Teachers, especially those in low-resource settings, face a multitude of challenges in their path to delivering effective lessons. Beyond traditional challenges of limited or no formal teacher training, constraints in these contexts also include limitations within a school or district around particular teaching practices, being pulled into numerous commitments at school beyond just teaching, and many others. Learning Equality

is committed to designing and building its open-source tools in a collaborative and inclusive way. This session aims to engage participants around exploring how open educational practices can be fostered, while being realistic about the challenges and opportunities presented by working in low-resource and low-income environments. In this session, we plan to facilitate a design thinking activity to brainstorm a set of guidelines necessary for improving teaching and learning outcomes, through the use, alignment, and modification of open educational resources.

From content curation to Open Educational Practices: experiences in a medical curriculum

Nicolai van der Woert and Nicolai van der Woert

Keywords: content curation, Open Educational Resources, reuse, open educational practices, medical, curriculum reform, referatory

In a medical curriculum innovation we explored the use of OERs in the context of self directed learning. However, teachers encountered barriers in finding OERs and assessing the quality. Also they don't have enough time to search and curate. Finally redesigning OERs into Open Educational Practices and integrating those in the curriculum is difficult. For these reasons Radboud university medical center initiated two projects: 'content curation research' and 'creating OEPs for the curriculum'.

The university decided to support the teachers with new content curation services to overcome barriers to reuse OERs and move on to creating Open Educational Practices. This called for new support roles for library and educational expertise center.

A grand total of 14000 medical OERs have been curated using inclusion and exclusion criteria. The first curation round with 3rd and 4th year student workers took 750 hours. Only 19% of the curated OERs met the criteria. Reports for medical specialisms (like cardiology or neurology) were created, each with 20 to 130 OERs. A number teachers could easily crunch in the second curation round. Results are stored in a curated collection in a referatory.

Collection analysis results are surprising: 81% OERs rejected, only 5..10% could be used 'as is', low Creative Commons usage, (in-)completeness/low usability of metadata, OERs culturally difficult to translate.

Next step was to support teachers reusing OERs and creating Open Educational Practices. Educational consultants guide teachers through the redesign and curriculum implementation process. The adoption process from the teacher's intention to reuse to a well designed and implemented OEP is a slow and time consuming process in need of structured policy.

Other university medical centers are interested to use the referatory and implement OEPs locally. A national project is spinning off. The presentation will also explain the national approach.

Full Paper: <http://resolver.tudelft.nl/uuid:dc177037-6b6f-47ba-810d-3fbe4c5bb3b6>

Project Estafettes: online hands-on learning with peer feedback and peer appraisal

Pieter Bots and Els van Daalen

Keywords: peer feedback, open-ended questions, incentives

One of the challenges of courses in which learners have to deal with open-ended questions, i.e., for which there is no single correct answer, is that they are teacher-intensive, since closing the learning cycle requires interpretation and judgement. This issue is typically solved by having learners work in groups and/or work on a single case. However, group work engenders free-rider behavior, and by elaborating only one case, learners receive insufficient practice.

To deal with this, we have developed the online “Project Estafette” method: an assignment is divided into a number of consecutive steps, and learners conduct each step on a different case/topic, building on the prior step conducted by an anonymous predecessor. In each step, a learner has to (i) study the work which has been submitted by the predecessor, (ii) provide constructive feedback and appraise the work, (iii) improve the work, and (iv) extend it by adding their “own” step. Specifically designed rules stimulate quality and fair peer review.

Our generic, flexible ICT platform allows teachers to design estafette templates with step-wise assignments, develop cases, and operate, monitor, and evaluate estafettes. This is applicable to any type of open-ended assignment that can be divided into consecutive steps, ranging from writing an essay to developing a mathematical model.

To date, we have run 12 estafettes with groups of 200+ undergraduate students in a first-year course on systems modeling, and 2 estafettes with groups of 40+ graduate students on policy analysis methods. Compared to graduate students, first-year BSc students tend to take their review task less seriously, dislike the peer appraisal, and some resent having to build on someone else’s work. However, on the whole, learners experience it as intensive training, and recognize the learning effects of repeated application, and reflection on their own work and that of others.

Reimagining Education in the Arab World

Shireen Yacoub and Shahed Atieh

Keywords: OERs, higherEd, MOOC, K-12, localization, adaptation

Launched in 2014 by the Queen Rania Foundation for Education and Development, Edraak provides free, high-quality online and blended education to Arabic speakers across the region. It is the first Arabic instance of the OpenEdX platform developed by Harvard and MIT.

Edraak currently reaches over a million and a half registered Arabic-speaking learners from across the region, including disadvantaged youth in Gaza, Syria, and Iraq. Through various collaborations with education partners and subject matter experts, Edraak continues to enrich educational Arabic digital content and OERs. Edraak leverages its technology to scale dissemination of this content as part of its efforts to revolutionize delivery and access to education across the MENA region in order to enable Arab society to fulfill its potential.

Edraak is interested in being part of the Open Education Global 2018 Conference and presenting successful models and lessons learned in three main tracks. Innovation through opening traditional practices: localizing MOOCs to the Arab world. Open educational practices/open pedagogy: collaborating with Google.org to create an online learning platform for Arabic OERs targeting K-12 students and their educators across the MENA region. Lastly, connecting open education to formal education: bridging the gap between higher education institutions in Jordan and allowing them to create, adapt and license accredited online courses for their learners.

Edraak will leverage its expertise over the past three years in disrupting education in the Arab world to present actionable insights with conference audience. The objectives of Edraak's participation are showcasing successful models for creating and licensing open educational content, highlighting best practices for localization and contextualization of high quality content created by the world's leading educational institutions and finally inspiring conversations around the accreditation and standardization of OERs in the MENA region.

The Open Faculty Patchbook: A Community Quilt of Pedagogy

Terry Greene and Jenni Hayman

Keywords: Open Pedagogy, Open Education, Open Practice, Faculty Development, Professional Learning, Sharing, Community

The Open Faculty Patchbook is a community 'patchwork' of teaching skills and experiences. Each 'patch' has been written by a professor in higher education and is focused on one particular pedagogical skill. Together, these patches create a how-to-teach manual for higher education that is openly licensed and available to anyone. As mentioned, each chapter covers one pedagogical skill. We began our search for pedagogical skills to cover with the University of Michigan's High Leverage Practices, but the scope of the patchwork does not end there. It is dictated by those who want to contribute their skill.

The faculty member who authors a chapter offers their take on it. They describe their learners and learning environment and how they deploy or use the skill in that space. It includes instruction on how to use the skill situated in a real example. There is a suggested template, but faculty members who sign up to co-author the book can take it from there. In August 2017, the first manual was published, focused mostly on in-class instructional skills. Many of the patches, however, are transferable to online teaching. We are now ready to focus on other things like digital pedagogy as well as an entire separate patchbook focussing on the stories of how learners learn. In this session, we will showcase the work already done, and solicit the help of the participants in creating the next iterations of The Patchbook. Including The Open Learner Patchbook.

This whole idea has been inspired by an amazing project by Robin De Rosa: The Open Anthology of Earlier American Literature and the benefits of open educational practices.

Leveraging OER to Earn Workforce Certifications and Demonstrate Skills Mastery in Applied Sciences

Una Daly, Sian Proctor and Lisa Young

Keywords: OER, workforce certification, U.S. government science resources, geology, water systems technology, applied science, college

This presentation will share two case studies on the use of OER and U.S. government science resources in the applied sciences. The benefits and challenges of developing applied science courses with open educational resources from a faculty, project management, and instructional design perspective will be discussed. Student feedback on the use of these materials and sustainability plans for continuing to update and enhance courses will be shared.

- The Water Systems Technology program at College of the Canyons has been using OER in their introductory and advanced water mathematics courses for over 5 years to make their programs more affordable for students who are earning workforce certificates in the water treatment and distribution industries. Recently, the department has received a grant to develop 8 additional courses using OER in order to eliminate all textbooks costs from their program.
- For the past five years the South Mountain Community College Geoscience department has been encouraging its instructors to use government created open educational resources as the basis for their instructional materials in order to lower costs for students. Science instructors have struggled when trying to provide quality open resources for lab based classes. To address some of these challenges, the Geoscience department has begun to focus on skill based activities that demonstrate mastery of an OER tool or database.

Wikipedia as a toolset for Open Education

Vahid Masrour

Keywords: Wikipedia, Open Education, Open Pedagogy

Wikipedia (along with its sister projects on the Wikimedia platform) is becoming part of the toolset of more and more educators. Still, a number of myths and a relative lack of understanding of its inner works limits uptake. In this presentation, we will discuss the value of getting students to contribute to Wikipedia, inserting it into planning (in lieu of a disposable assignment), and the competencies that are built through this type of task. We will explore how this activity is true to the idea of Open Education, and serves the needs of students, educators, institutions and society.

Exploring K-12 Open Educational Practice (OEP) by Developing Networked Learning in Grade 10 Building Futures

Verena Roberts

Keywords: Open Educational Practice, Networked learning, open learning

Open educational practice (OEP) is an emerging approach to learning and teaching within K-12 learning environments that is becoming more established in higher education. As K-12 pedagogical practices shift from instructivist to constructivist designs, there is growing evidence that OEPs encourage access to learning for all, support collaboration with other learners in formal and informal learning environments, and that OEP pedagogical designs invite individual learners' voices and choices in learning. However, while practices are emerging and there is growing support for research that examines K-12 open educational practice, this area is currently underexplored. Using a design based research perspective, this research will examine a grade 10 Building Futures program by implementing an open educational practice framework to support student learning. This study builds from an analysis of existing research on developing open learning practice in K-12 learning environments, describes and evaluates OEP in an existing grade 10 Building Futures classroom, and evaluates the impact of OEP in a grade 10 learning environment to inform broader K-12 OEP design principles.

Connecting Open Education to formal education

MOOCs as drivers of open education culture in universities

Ada Giannatelli, Paola Corti and Susanna Sancassani

Keywords: MOOC, OER, POK, DTRANSFORM

The role of MOOCs in opening up higher education has been widely discussed with positive and negative instances. However, at this stage of development of the MOOC ecosystem, the identification of models and strategies to foster the role of MOOCs in open culture could become a significant asset for higher education institutions, be they technical or general universities. Starting from the experiences and practices at Politecnico di Milano, this paper aims to explore how MOOCs can be an effective driver of change in content production and delivery strategies.

In 2014 Politecnico di Milano launched its MOOC platform POK (Polimi Open Knowledge <https://www.pok.polimi.it/>) based on Open edX.

POK stance on open knowledge aims primarily at providing free and open access to courses and content, including, but not limited to, CC licensed material.

The paper explores the increasing role of OER in the POK project and how the involvement of teachers has impacted on content production and delivery strategies, such as the reuse/repurposing of existing content and the delivery of new content, both via the POK portal and the POK channel on YouTube.

MOOCs have also been a useful channel for training about how to use OER in teaching innovation practices (MOOC: Using Open Educational Resources in Teaching) and for raising awareness among university leaders about opening up education (D-TRANSFORM MOOC: University Strategies in the Digital Age).

The experience of Politecnico di Milano shows that a MOOC strategy could be a multipurpose starting point for connecting open education to formal education, following a step-by-step path and adopting a pace which is consistent with the capacity of the institution to absorb changes and the necessity to integrate different needs and visions.

Pioneering in open education: first experiences with cross institutional community building and sharing educational resources in math and nursing in Dutch Higher Education (flagship projects)

Annoesjka Cabo and Marja Versantvoort

Keywords: flagship projects, community building, sharing educational resources, re-use of educational resources, mathematics education, nursing education, higher education in the Netherlands, cross institutional

In 2016 the former Dutch minister of Education shared ambitions. Amongst those: in 2025 all teachers in Dutch HE share and reuse educational resources among each other. In 2017, two flagship projects were started (one around a shared educational profile of – as a start- 5 out of 17 Dutch Bachelor of Nursing universities, and one around first year mathematics interfaculty education in the 4 Dutch Technical Universities) to explore what it would take to

develop a culture of sharing among cross institutional communities of teachers. The goal of the communities would be to help accelerating the adoption of open education in Dutch HE. In the end, resources shared among the communities, plus having a stronger community will support the use and reuse of the shared educational resources among teaching staff and lead to integration of these resources in educational practice on micro level in a sustainable way. Hence, the flagship projects pave the way to transform education through open approaches.

In the proposed panel session we would like to discuss the approaches taken in both flagship projects, to inspire other institutions and learn from the input shared by our session participants. The panel consists of the project leaders and one lecturer from each institution. We will ask input from the session participants on questions like: what is needed to build and maintain communities? What kind of activities would a community have to offer in order to help their members share their educational resources? Specifically: how can the community enhance the reuse of material developed at a certain institution across other institutions?

Using discovery learning to teach introductory programming in an online course

Felienne Hermans

Keywords: programming, Python, flipping the classroom

How to teach introductory programming? It is a question that keeps many programming teachers occupied. There are a few interesting issues. Firstly, students come in with very diverse experience, from being able to compile their own kernel to not knowing how to use a computer. Since there are no programming courses in many high school programs around the world, these two extremes gather in introductory programming courses. Secondly, we would like to avoid too much context of programming. Some students might be excited by the prospect of programming itself, but many want to use programming in their own field.

So how do we teach programming in a way that is inclusive to previous experience and varying interests? Felienne designed a flipped Python course in which students are taught basic building blocks rather than contexts and work together in mixed experience groups to work on topics they care about.

See also: <http://www.felienne.com/archives/5780>

Developing OER Degree Pathways in the US and Canada

James Glapa-Grossklag, Amanda Coolidge and Richard Sebastian

Keywords: Degrees, Pathways, Savings

Learn about three large-scale implementations of OER degrees in the United States and Canada. OER-based degrees provide students pathways to a degree or credential with no textbook costs. These pathways are also called “Zero-Textbook-Cost degrees” in the United States or Zed Cred in Canada. Courses in a specific program use OER as instructional materials and are aligned to provide students a clear pathway from start to finish of a program. OER pathways are gaining in popularity particularly at community colleges where registering for these courses can save students up to 25% on the cost of attendance for a 2-

year degree. Students following a guided pathway complete their educational degrees more quickly resulting in less costs. Developing an OER degree builds institutional capacity for designing clearer and more efficient pathways to credentials and better connecting student learning outcomes to curriculum and pedagogy. Project directors from initiatives across the United States, in California, and in British Columbia will share updates and describe lessons learned to date.

Virtual Mobility in the context of Open Education: re-establishing the boundaries

Kamakshi Rajagopal and Olga Firssova

Keywords: Virtual Mobility, Open Education, Group Concept Mapping

Virtual Mobility (VM) stands for a set of ICT supported activities that realize or facilitate international, collaborative experiences in a context of teaching and/or learning. Virtual Mobility aligns with the key concept of physical mobility, one of the cornerstones in the European Commission's educational strategy through the flagship of Erasmus Exchange programme for students in HE. Students and teachers participating in mobility actions gain various competences and skills, ranging from professional skills to organisation skills and language and intercultural skills. Virtual Mobility has been seen as an effective method of extending the benefits of mobility to include more people, who might otherwise not have access to these life-changing experiences.

In recent years, the options for such extension of learning opportunities for more inclusion have increased, most notably through the advent of Massive Open Online Courses and the use of Open Educational Resources, Open Credentials and Open Educational Policies. Within the context of the openVM Erasmus+ project, a Group Concept Mapping (GCM) study will look at the relationship between Virtual Mobility and other forms of Open Educational policies to propose relevant support and accreditation measures. This proposal for an Action Lab forms the fourth phase of the GCM methodology: an interpretation workshop where participants will be asked to reflect on the outcomes of online brainstorm over the topic by different stakeholders.

Global virtual exchange: transforming formal education

Marinke Sussenbach

Keywords: credit-bearing, moocs, formal education

Worldwide there are thousands of MOOCs available. Millions of learners can use these MOOCs from all ages, countries and different backgrounds. Delft University of Technology offers 68 MOOCs on the edX platform and already attracted more than 1.5 million learners and these numbers are growing rapidly. Our regular on campus students were not benefitting enough from these MOOCs.

Two years ago our Vice-President Education & Operations Anka Mulder raised the question with our partner universities. Wouldn't it be great if our students could use the wide variety of MOOC offerings in their on campus degree? A vision emerged: virtual exchange of online courses. In Europe we have an elaborate system for offline exchange but virtual exchange is still a novelty.

In 2016 TU Delft partnered up with leading universities around the world, such as University of Queensland, EPFL, and Hong Kong university of Science and Technology, to launch the new initiative: Credits for MOOCs – Virtual exchange. A three-years pilot to explore the possibilities of virtual exchange. There were several challenges to overcome before we could start, ranging from organising exams, dealing with different time zones, different academic calendars and embedding each other's MOOCs in our regular process of credit recognition (rethinking education). In 2017 the first students participated in this initiative. The aim of this presentation is to share with you our lessons learned, overcoming barriers and how we are gradually transforming education within our universities by incorporating informal education.

VideoLectures.Net: Bridging Open Education policy and the needs of the job market

Mihajela Crnko

Keywords: Open Educational resources, Policy making, Machine learning, Information literacy, Data science

The state-of-the-art in business, technology, industry and scientific breakthroughs are disseminated through a rich network of numerous yearly global conferences. However, only a tiny fraction of the interested scientific community has access to this knowledge, which exacerbates both an intellectual and development gap among those talented individuals with and without access. VideoLectures.Net is making up-to-date knowledge available to everyone, regardless of their ability to attend expensive scientific events from all disciplines. This includes video recording the top scientific events world-wide, translating the content into major world languages (through automatic subtitling), and making the content available freely to anyone with an internet connection. With the repository of over 23,000 peer-reviewed lectures, collected from over 1000 events, and presented by over 15,000 authors, VideoLectures.Net generates every day attention of over 5000 unique visitors from academia and industry. This generates every day an average attention span equivalent to a conference with 2500 attendees.

Videos, enhanced by machine translations and transcriptions enable the overcoming of the language barrier and are making quality educational content available to everyone in many world languages.

The repository has been a use case in several projects, resulting in solutions to support the growth of Open Access and ensure it is sustainable in the long term and is recognized as a best practice case in a national initiative Opening up Slovenia, connecting stakeholders from many sectors in achieving the main goal, which is to follow as closely as possible and go beyond the European Commission's communication "Opening up Education".

The results of research, connected to Videolectures.Net, have affected national educational policies and are connecting open education to industry by providing users with content, relevant to the current needs of the job market in specific domains of science.

The message is in the choice of medium: Building OER strategy that reflects institutional values.

Robert Lawson and Kathy Snow

Keywords: OER, MOOCS, SPOC

Canada has a predominantly public education system which can be divided into six types of institutions: research intensive, primarily undergraduate, predominantly teaching, community colleges, polytechnic, and skills colleges. There is also no central regulatory body in Canada for academic standards and few emerging approaches for collaboration using OER, except in the provinces of Ontario and British Columbia. Given this diversity and lack of formalized structure in open resource development in the majority of the provinces, individual institutions are navigating their approach to open in a variety of ways. This research is based in the McLuhan's principle (1964), "the medium is the message." The approach that an institution takes to open education reflects the values of the institution. The understanding of Open is different internationally, but also nationally, depending on the mission of the institution. This paper presents a comparison/contrast of the efforts of two Canadian institutions developing open education initiatives; NorQuest College in Western Canada and Cape Breton University in the East. In both cases, these institutions' philosophies, values and mandate are driving the encouragement and creation of open educational initiatives. The NorQuest example will present the development of a three phase OER strategy which will eventually lead to full institutional adoption of open practices. In this case, OER objectives help meet the needs of students facing significant challenges in the traditional Canadian education system. In the CBU case, the mission of relationship building and service to the community is the driving force behind OER development. From our work, the implications for continued development towards sustainable OER implementation include: institutional goal setting, alignment of goals with institutional values and objectives; creating space to test for scale and cost, and reflection on implementation.

Full Paper: <http://resolver.tudelft.nl/uuid:1273101b-078a-4163-92c5-8b42aef15b5c>

OER translation project as a semi-formal educational program in High school in Japan

Yoshimi Fukuhara and Toru Kishida

Keywords: OCW, OER, Translation, K12

In Japan OpenCourseWare has been distributed since its launching in 2005 as simultaneous project of six major universities. In 2006 JOCW was established as one of first regional OCW organization and it grew up as a nation-wide consortium with twenty-two universities as its peak time. Nowadays it shrank to sixteen universities but member universities still continue to open up their lecture contents. Most of those contents have been provided in Japanese but those seem to be not enough for self-learning materials in terms of richness. On other hand huge amount of OER contents are provided from various universities all over the world. Most of them are distributed in mostly in English. For ordinal Japanese learners it is very difficult to learn subjects in English. In case of MIT OCW, many courses have been distributed in various languages after translation under support of translation affiliate organizations. In Japan we established the non-profit organization, named Asuka Academy

in order to distribute world quality OER after translation to Japanese by volunteer translators in 2014. So far we have distributed fifty-four translated courses including several whole size OCW courses from MIT, UCI and TU Delft and various small chunk of educational materials from Open University of UK, MIT K12 content and AFP world academic archives.

Recently some organization have provided organizational translation support. In case of high school project Hiroo Gakuen, who is private junior and senior highschool in Tokyo launched translation project as a semi formal educational program in the school. This joint activity won the award from the minister of education, culture, science and sports in Japan as a part of e-Learning Award 2017.

Student perspectives

Epistemic maturity in social MOOCs: a critical condition for “success” in student-led initiatives

Adeline Bossu and Divina Frau-Meigs

Keywords: Presence, epistemic maturity, sMOOC, transformation, transfer, participation, student-led initiatives

This paper uses a corpus two of the social MOOCs (or sMOOCs) from the European Funded Project ECO. It is composed of the sMOOC “Step by Step” (to learn how to make sMOOCs), and the student-led sMOOC “Doctorat et Poursuite de Carrière”. It tests the hypothesis that, by creating conditions, resources and tools for transfer, students as participants are led to experience transformation in terms of “presence” and “epistemic maturity”.

The results show that transfer is dependent on the negotiation between all stakeholders of a number of tools for support and management. This process affected the various editions of the “Step by Step”, by increasing the availability of “back-office” solutions. The distributed nature of the process also implied constant and consistent coordination of teams, in relation to an agile pedagogical design.

From the perspective of student-led initiatives, the transfer is obvious with direct replication and re-use of resources. Transfer reaches a further step of transformation with remix and repurposing strategies. The process helped build the trust in the community and self-respect among the participants. This trust and confidence in turn translated into competences in management, especially in identifying and using correctly and adequately the distributed competences of the group. Previous experience in the “Step by Step” fostered competences of community management and of facilitation. These results confirm the existence of epistemic maturity as a key achievement of sMOOCs. They call for more research on this topic especially as it redefines the criteria for evaluating the “success” of any sMOOC.

Who are we talking about?

Caroline Kuhn

Keywords: digital inequality, assumptions, digital natives, narrative research

There is a tendency to think that the emerging media and the new technological landscape brings with it a dose of magical change. Furthermore, those changes are mostly seen as inexorable and always for the better, enabling students to access ‘effortlessly’ some sort of inevitable progress. Thus, the usual questions asked in the field of educational technology tend to be related to ‘what works’, ‘performativity’, and ‘efficiency’. In so doing it narrows the understanding of these issues and avoids as Selwyn (2017) reminds us, the problematisation of the use of (open/closed) participatory technologies in every day educational practices. Despite the euphoria and enthusiastic rhetoric of many educational technologists and educational researchers (Oliver 2011; Selwyn & Facer 2013), the participants of my study have not yet changed their behaviours nor their attitudes towards learning, nothing seems effortlessly let alone seamless. Instead what is observed is how students cling to the structures and practices they are familiar with being reluctant to explore even less adopt new open tools for their digital academic practices. This reality reinforces an increasing ‘digital inequality’ the participants of my study have not yet changed their behaviours nor their

attitudes towards learning, nothing seems effortlessly let alone seamless. Instead what is observed is how students cling to the structures and practices they are familiar with being reluctant to explore even less adopt new open tools for their digital academic practices. This reality reinforces an increasing 'digital inequality' (DiMaggio et al., 2004) stemming from individuals who have access to the Internet.

I believe that this reality deserves a closer look and a more in-depth examination so that we can explore different ways in which we, as educators and members of the open education community, can support students in becoming more agentic and confident when navigating the open and unbounded 'wild' web. With agentic, I am referring to students being agents, and in that sense, it means to be able to make things happen by one's actions intentionally.

This Action Lab aims to challenge some of the assumptions people make, and in particular, educators and policymakers, around young people, being digital natives (Prensky 2001) hence the belief that students 'seamlessly' use (open) digital technologies to mediate their learning experience. For this the audience will be immersed in a guided debate where they will create scenarios, personas and a learner profile, using as inputs qualitative and quantitative data from my PhD study.

Personas and scenarios are mainly used in Human-Computer Interaction, also called User Experience, to find solutions to particular research problems. It has been lately used in learning design. In particular, I will use the approach and materials designed by Prof. Rose Luckin¹ and used in an Online Learning Design course I attended at UCL.

Briefly, personas are a research-driven narrative about an ideal person, and scenarios are based on observed activities in related settings, description of experiences (Carroll, 1999) and capture the essence of use or in this particular case, student's engagements. They will help us to reflect and find potential solutions to the research problem.

After the creation of personas and scenarios, I will tell the story of thirty-two undergraduates (the participants of my study) at an English University that struggled to understand and engage with online tools and services, finding themselves more like visitors of the Web than residents (White & Le Cornu 2011) In so doing I intend to open the space for discussion around participants stories and how some of their assumptions prove to be wrong. But more importantly, we will explore how those assumptions guide some of our decisions as teachers and policymakers.

The content of the session will be manifold. It will touch areas related to the impact that such false beliefs have in Higher Education policies and decisions around the provision of digital education for students. It will also include elements regarding digital literacies as socio-cultural practices, the interplay of structure and agency in open and closed learning spaces and the importance of agency in a digital ecosystem as a means to flourish in a digitally mediated society and of course, emergent topics that arise organically from the group discussion.

The workshop offers a space to reflect together what can be done once we have acknowledged that not all of our students feel comfortable and confident navigating the web let alone exploring for new (unknown) tools to mediate their learning experience.

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MOOCs in Sri Lankan higher education system: Exploring students' perspective in a developing country

Dilrukshi Gamage

Keywords: MOOCs, Developing countries, Perspective

Massive Open Online Courses (MOOCs) are not new anymore. Since 2012, xMOOCs started getting popular after introduction of Coursera, edX and Udacity. There are nearly 10 different popular MOOC platforms and nearly 2000 courses offered through MOOCs. Despite the concerned low-level completion rates, Universities and institutions invest on MOOCs expecting to be benefited to students around the world. There are studies to explore perceptions of MOOCs, in identifying what causes drop-outs and other problems of relating to MOOCs, yet in these studies, the majority of the students were representing students from developed countries. Fraction of the MOOC perspective is belonging to developing countries yet there are not enough studies conducted toward the direction. It is important that countries understand the potential of MOOCs and explore the impact it can create to the developing economy. Sri Lanka is South Asian island neighboring to India, With the growth of economy, country is seeking young population to equipped with the education and MOOCs could potentially be an option. However, students in higher education less likely see the potential of the new phenomena. In this study, we tried to understand the context of MOOCs from Sri Lankan students' perspective. A systematic data collection method using multi agents to collect data in web based questionnaire and semi structured interviews were used. Data collected across 13 out of 15 government universities and 10 out of 19 other institutes who are permitted to provide Degrees under university grant commission. Our objective was to understand students' perception, awareness and identify satisfaction and limitations of using MOOCs and this will resemble the developing countries perspective. We will refine the abstract once we complete the data analysis and this paper will demonstrate data and present analysis of a systematic study.

Different Viewpoint on MOOC Participants' Success: Satisfaction and Intention-Fulfillment as Outcome Measures

Eyal Rabin, Yoram Kalman and Marco Kalz

Keywords: Students satisfaction, Intention-fulfillment, MOOCs, Learning analytics

The success of lifelong learning in MOOCs and other OERs should be evaluated not through traditional lenses, instructor-focused measures such as dropout rates and assignments

completion, but rather through non-formal learner-centered measures such as learner satisfaction and the fulfillment of learner intentions. The goal of this research was to predict the two learner-centered outcome measures using learning analytics and educational data mining. Data gathered from self-report questionnaires, and actual behavior was collected. 125 MOOC participants answered a pre- and a post-questionnaire and their behavioral measurements were harvested from the log-files of the course. Using structural equation modeling allows an identification of the effect of the independent variables included in the study - demographic and educational background, outcome beliefs, online self-regulation learning, learners' behavior and perceived course usability. The results suggest that participants' gender, number of weekly quizzes taken and the length of participation in the course affect the perception of individual intention-fulfillment, while the number of lectures that the participants attended affects the level of course satisfaction. Moreover, positive outcome beliefs, the ability to regulate the learning by setting goals and the perceived usability of the course influenced the level of intention-fulfillment and course satisfaction. The results enable to develop a theoretical and practical perspective of student perception of courses outcomes which is essential when discussing lifelong learning. It is suggested that MOOCs and other OERs designers and developers encourage their participants to set their goals and to evaluate expected benefits to exploit the potential benefit from course participation to the full.

OER Use and Community College Students Approaches to Deep Learning

Kim Grewe and Preston Davis

Keywords: OER use, OER, deep learning, community college students, OEP, Open Pedagogy

Open Educational Resources (OER) have the potential to bridge the gap for community college students not only because they are more affordable or provide access but also because they have the potential to make learning more meaningful for these same students. Although issues related to access and affordability have been extensively researched, less is known related to the conditions under which courses that incorporate OER foster deep learning approaches among community college students. In this presentation, the researcher will discuss initial findings of a qualitative research study conducted at a large, urban community college in the U.S. The researcher used focus group data to examine the ways in which student use of OER contributed to their approaches to deep learning in their college courses. The focus group data will describe the experiences and perceptions of these community college students enrolled in courses which use OER and investigate the ways in which use of OER fosters approaches to deep learning in these same students. Previous OER efficacy studies have employed quantitative methods, examining metrics such as pass rates, grades, retention, future course enrollment, and time to completion. In contrast, this qualitative study uses thick description of students' use of OER and students' learning processes in community college courses to discover the ways in which use of OER contributes to deep learning. This research was conducted as part of a dissertation. Preliminary findings were not available at the time of the deadline for proposal submissions. More qualitative research from the students' point of view is needed in the field of Open Education, and so it is hoped that this qualitative study fills that gap and opens the door for future qualitative research studies on OER efficacy and student learning.

Saving What for Whom: Student Perspectives on the OER Initiative at Kingsborough Community College, or How To Keep All the Stakeholders Involved

Shawna Brandle

Keywords: [Open Educational Resources](#), [Student Perspectives](#), [Open Textbooks](#)

Kingsborough Community College, an urban community college is developing a faculty-driven OER program funded by the \$8 million New York State OER grant. To increase adoption of OERs on campus, while maintaining the utmost respect for academic freedom and compassion for our more technologically challenged colleagues, we have focused on making the financial case to faculty. We present faculty members with data on student finances, which puts the cost of textbooks in stark relief. Once most individual faculty members become aware of the existence high quality alternatives to costly textbooks, they are committed, and we begin the work of converting their course to one that uses OERs. Yet there is one important perspective that has so far been missing from the discussion- that of the students- do they like the OERs that are being adapted for their classrooms, or would they prefer the traditional textbook approach, or something else?. We have depended on the growing body of literature that says students using OERs perform as well or better as students using traditional course materials, and that students believe that the OERs are just as good or better than traditional course materials, but these studies for the most part have been conducted at institutions with very different student profiles than Kingsborough. Therefore, as we seek to expand the adoption of OERs and move the campus towards a culture of open education, it is imperative to consider how Kingsborough students are doing with these materials and how they feel about them, and to consider this feedback as crucial to any assessment, revision, or institutionalization of OERs at Kingsborough. This presentation will describe the program as we've built it across disciplines, and the results of our first round of student evaluations, including grade analysis, surveys, and focus groups.



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