



The 2019 OpenupEd trend report on MOOCs

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Foreword

This OpenupEd trend report is building on contributions by various experts within the OpenupEd partnership on current trends on Massive Open Online Courses (MOOCs), especially focusing on Europe. MOOCs are stepping out of the experimental phase and are becoming more and more part of the educational system.

Within the framework of the European MOOC Consortium (EMC) of the main European MOOC platforms (Futurelearn, FUN, MeriadaX, EduOpen and OpenupEd), we coordinate actions towards:

- increasing the awareness and use of digital education and MOOCs within universities and empower them to embed this in their organization. As a result, more universities and other educational providers will use MOOCs to provide open education, as part of their programmes of continuing education and continuing professional development or as part of the preparation for undergraduate and postgraduate degrees.
- increasing the impact of each of its platform partners on educational policy by taking a lead in this area, making MOOCs part of institutional policies and strategies, shaping regional and governmental policies, partnering with the European Commission on matters relating to online and digital education, and by supporting further exchange of educational models, technologies and business models for improving practices in higher education institutions.
- strengthening the continuing education sector by increasing the credibility and visibility of MOOCs, by developing a framework for the recognition of microcredentials, and by working towards the adoption of that framework by stakeholders across Europe.
- making MOOCs a widely considered option for employers seeking to close knowledge and skills gaps in the economy and for workers interested in changing careers. In order to do this, MOOC platforms and its partners are developing a dialogue with social partners and civil society organisations on the changing needs of the European workforce. This will include consideration of what skills and knowledge learner need to support progression and how best to make people and organisations aware of the learning opportunities of MOOCs. This is currently explored within the EMC-Labour Market project.

OpenupEd is full partner in the [European MOOC Consortium](#), involving its own partners in these action lines. We consider the OpenupEd annual trend report as a valuable contribution to this.

This OpenupEd trend report 2019 includes contributions on latest general trends and developments in MOOCs. In this report:

Timothy Read and Elena Barcena from UNED are focusing on the role for inclusive MOOCs in Societal Change. This contribution is followed by a contribution on MOOCs for business use by Christian Friedl from FH Joanneum University of Applied Sciences Graz and colleagues Agnieszka Żur, Cracow University of Economics and Thomas Staubitz, Hasso Plattner Institute in Potsdam. A country level report on investigating institutional MOOC strategy in Greek HEIs is covered by Christoforos D. Karachristos, Dimosthenis Karakatsoulis, Theofanis Orphanoudakis, Dimitris Sideris and Elias C. Stavropoulos of Hellenic Open University.

Christian M. Stracke from the Open University of the Netherlands is setting a Quality reference framework for MOOCs to improve online learning. Teija Lehto from Tampere University of Applied Sciences (TAMK), together with Leena Paaso from partner organisation Oulu University of Applied Sciences (OAMK) introduce the AgileAMK production model for creating MOOC-type courses. A European level topic is covered by the MOOC course for promoting the active participation of European citizenship. Patricia Herrero de la Escosura and Ana I. González from University of Oviedo will reflect on the design of this course. Another contribution on the design of a MOOC is coming from Tiberio Feliz-Murias and David Recio-Moreno from UNED on Massive Open Gamification.

The OpenupEd trend report was established to show some of the running initiatives within the OpenupEd partnership, exploring further innovation and mainstreaming in the use of MOOCs. We certainly believe also this second OpenupEd trend report will be an inspiration for many to further use MOOCs and start cooperation and sharing of expertise with other (European) MOOC providers within OpenupEd.

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Innovative impact

The short-term innovative impact of inclusive MOOCs is that of increasing the participation of a culturally diverse group of students in these courses. This is reflected not only in increased numbers of people registering for a MOOC but also in terms of their continued participation throughout the course and the level of engagement with both the communicative tools and the activities included in the course. The heterogenous social structure of the students in a given course provides opportunities for explicit social inclusion, where the members of the learning community are collectively learning about the subject of the course, and implicit social inclusion, where people from different backgrounds are mixing and working together online.

The long-term innovative impact of inclusive MOOCs is the possibility they offer for societal change by including a wider range of people in learning activities related to questions of general relevance. Where an online community is actively focussing on a current social concern, and little agreement of progress is being made, an inclusive MOOC can be associated with the community to facilitate the sharing of underlying ideas and the opening up of the relevant debate in a democratic, multicultural, and multi-structural way.

A Role for Inclusive MOOCs in Societal Change

Introduction

Education plays a key role in societal change in both an explicit and implicit way. The former refers to the direct results of learning, where a student achieves the pedagogic outcomes of a given course. The latter refers to the additional understanding and possible skill acquisition that have been achieved thanks to the educational context, content, and activities undertaken, while following a learning programme.

The democratisation of the access to online information and its social genesis in different types of platforms and tools like Facebook, Twitter, Instagram, etc., have had positive effects on society, by providing, for example, just-in-time access to important information when needed. However, they have also had negative effects such as promoting extremes of opinion, polarising peoples' views, and increasing deeply held prejudices. We haven't got to look much further than Trump's presidency in the US or the Brexit situation in the UK to see vivid examples of such social manipulation and the extreme polarization of online opinion.

In order to broaden people's understanding of complex social issues, and move toward a society where online information sharing and interaction can be more effective, inclusive education has a key role to play. Online courses have existed almost for as long as the Internet itself. However, it was arguably in 2012, when Massive Open Online Courses (MOOCs) appeared (Daniel, 2012; Siemens, 2012), that democratizing social learning became a reality. However, the potential of these courses for facilitating societal change has so far not been achieved. This is arguably due to the narrow and focussed nature of the topics that can be studied in these courses, or the lack of inclusiveness designed into these courses.

In this paper the nature of inclusive MOOCs is analysed together with the way they can be used to promote societal change. The lessons learnt by developing such courses in the context of the MOONLITE¹ project are used to illustrate the characteristics that such courses can have.

MOOCs for a Changing Society

European society is ever-more diverse and multicultural. Such diversity is arguably enriching but, at the same time, it changes the nature of social interaction and places new demands on online learning.

Online interaction reflects a technologically advanced society, since even the simple, almost transparent, interchange of messages, images, etc., by users, requires a sophisticated collection of networked devices and online storage. However, such advanced functionality doesn't imply an

Best practices

Best practice in the field of inclusive MOOCs can be identified in the following ways:

- Involving the target audience in the MOOC production process.
- Incorporating inclusiveness during the design, development and deployment phases of the MOOC.
- Specifically, designing and developing for mobile deployment, since these technological devices are the most commonly used ones.
- Including multimodal materials that reflect different learning styles together with multilingual transcriptions if appropriate.
- Using members from the target audience as educational proxies and actors in the preparation of the videos.
- Making the most of educational opportunities to complement fragmented online communities with inclusive MOOCs.
- Using language in course activities and forums in such a way that a respectful and empathic atmosphere is created.

equivalent or appropriate level of digital literacy or digital competences in its users (cf. the capabilities of people from the MENA [Middle East and Northern Africa] region; Traxler, 2018; Traxler, Read & Barcena, 2019 in press). A diverse society will inevitably have people with a wide range of such skills. Therefore, any online educational services must reflect this diversity to effectively reach and support such a wide range of users.

Most MOOCs on the big European and American MOOC platforms are generic in the sense of following a standard course template that does not change for different types of content or audiences. People with common interests are often grouped together by course developers, since, after all, they share the common goal of learning what a course has to offer. This is, however, a gross generalisation that does not reflect the disparity between the "members" of the group.

Even a "collection" of people who share a given interest, for example, those who have registered to undertake an open online course, they typically have little else in common. Depending upon the topic being presented in the course, the students who have signed up to study it can reflect a heterogenous set of individuals who, depending upon their cultural background and prior learning, will reflect a series of sociocultural, pedagogic and technological differences. Such differences need to be taken into consideration when trying to understand how open education can be used to help them. For Europeans, for example, who have had the good fortune to form part of a stable economic and political society, participating in open online learning can present few hurdles, since there is no fear of the isolation or unprotected social interactions that such courses potentiate. However, for other social groups, such as refugees or migrants, such online learning can represent a threat. Since many members of a given society already feel isolated and marginalised, participating in virtual open learning communities is unsurprisingly less popular than traditional face-to-face classes.

It is argued that for online courses, such as MOOCs, to achieve their real potential as an effective tool for opening up education to society in general, and therefore working as a catalyst for change, more attention needs to be paid to the multicultural and multi-structural nature of modern society. To this end, three dimensions of inclusiveness need to be factored into the three Ds (design, development and deployment) of MOOCs: firstly, the varied digital literacy and competences that a student population might have. Secondly, the socio-cultural norms that dictate how different people behave online. Thirdly and finally, the psycho-historical situation that reflects the varied lives of those who want to study online and how that can limit their disposition to participate in open social learning.

Developing Inclusive MOOCs

Some MOOC providers such as Coursera (Koldony, 2017) have already started initiatives for groups like refugees and migrants, by offering courses at no cost, that are undertaken in collaboration with partners who can support the initiative in many ways, such as providing access to computers or Wi-Fi. On a different scale, academic research projects like LangMOOCs (www.langmooc.com) and MOOCs4inclusion, have produced

reports of how MOOCs can be potentiated and made more inclusive for displaced people (Colucci, et al., 2017). Other aspects of the inclusive educational needs of such diverse social collectives can be found in the work of authors like Zhang (2013) and Jemni & Khirbi (2017).

In the MOONLITE project (Read, Sedano & Barcena, 2018), inclusiveness was the central axis for all stages of the three Ds of the MOOC genesis process. At UNED, the objective was to develop Language MOOCs (LMOOCs) for displaced people recently arrived in Spain, to provide them with the language skills and competences necessary to help them navigate typical situations they would encounter in the host country and, as such, take important steps toward their social inclusion. Even before the courses were designed, contact was made with over twenty NGOs, refugee support groups (RSGs), etc., and refugees and migrants themselves, to encourage them to form part of the course team. This was an important step toward the specification and structuralization of courses that were directly relevant for displaced people. Two LMOOCs were conceived that covered both formal and communicative language competences at A1 – A2+ (according the CEFR, 2001), and included relevant real-world situations, such as going to the doctor, looking for housing and employment, and defending their rights.

During the process of producing these LMOOCs, it became apparent that “inclusiveness” is not a binary concept, where a course qualifies as being inclusive or not. A series of “inclusiveness criteria” were identified (that can be divided into five categories: pedagogy, linguistics, socio-culture, technology, and institutionalization; Read, Sedano & Barcena, 2018), and fine-tuned following a series of face-to-face pilots, that could be used both to identify a scale upon which a MOOC can be said to be inclusive and its effectiveness for different and diverse social groups. These criteria were further developed to give rise to a rubric to be used in the 3Ds of MOOCs production to potentiate the inclusiveness of the courses for as wide and diverse a collection of students as possible. Some of the issues related to each of the three Ds can be considered. Firstly, design: the courses were designed around real-world scenarios to include the sub-language of the contexts of everyday life. The structure and the contents of the courses were chosen in such a way so as to facilitate both implicit and explicit social inclusion between members of the target community and native Spanish speakers. Secondly, development: the courses were developed to include course content that resulted from a joint design thinking process undertaken between the academics and the RSGs and refugees. Multimodal materials were used, including multilingual transcriptions. The actors in the videos were taken from the target community, since they could best project a realistic image that students of the course could relate to. Thirdly and finally, deployment: the courses were deployed on the institutional MOOC platform, Open EdX, and included a wide range of facilitators. Some came from the RSGs themselves, and as such represented educational proxies (Barcena, Martin & Read, 2015) for the displaced people the course was designed for, since they had gone through similar experiences in their lives.

The two LMOOCs that were produced in this project, Open Doors I and II, each lasted six weeks and had approximately 2200 registered students, of which, more than 30% completed the courses. This is arguably an indication of the effectiveness of the degree of inclusiveness in the course since most LMOOCs have completion rate of between 7-12%. The target audience reflected the aims of the course, of reaching displaced people, since over 95% of students came from outside the EU/US – (E.g., Syria, Cameroon, Morocco). Finally, the degree of engagement of the students with the course was higher than usual in these courses. For example, the participation in the module forums hardly diminished as the courses progressed.

From Inclusive MOOCs to MOOCs for Societal Change

MOOCs offer a way to extend online education away from a closed subset of people from first world countries. Inclusive MOOCs, therefore, can be seen not only to reach a wider audience in these countries, but also open up the courses to a more multicultural public, having different levels of digital literacy and digital competences. Andrade & Doolin (2016) argue that Information and Communication Technology acts as a bridge for marginalized social groups like displaced people, since it facilitates effective communication, helps them understand the new society, and provides them with a way to express their cultural identity. However, typically, such interaction takes places in small online communities of like-minded people and does not extend the conversations in an inclusive manner so that a wider audience is reached. Hence, this online interaction does not in itself provide a mechanism for the different members of a given society to gain a deeper and wider understanding of relevant issues and come together to reach consensus of opinion.

Inclusive MOOCs, if established to complement different areas of social concern, can provide a tool for societal change. They can bring together people from diverse backgrounds to learn about the underlying issues of a given question and enable them to develop the relevant skills and competences necessary to work toward solutions. The MOOCs in question can range from narrower more specific topics, such as dealing with health issues, to broader ones, integrating into a new neighbourhood community. This will enable barriers to be broken down and is likely to represent an important step to a larger, more inclusive society.

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MOOCs for business use: Six hands-on recommendations

Innovative impact

In 2018, for the first time more than 100 million people learned with MOOCs (Class Central, 2018b) – and more than 50% used MOOCs to upgrade their labour-market relevant skills (Shah, 2018). However, the awareness level with MOOC as a high-quality easily accessible contemporary learning and training format for business is still low in Europe compared to the US.

Therefore, this article highlights six selected recommendations for opening up MOOCs to professional lifelong learners. The proposed PDP framework of MOOC design and implementation is based on an open educational resource called "MOOC BOOK" which was developed in the European research project BizMOOC.

Introduction

MOOCs have arrived to workplace training (e.g. Radford et al., 2015; Sreeleakha & Manikandan, 2015) and they are increasingly attracting interest of organizations and individuals that seek to develop labour-market relevant skills (Shah, 2018a). A growing number of both individuals and organizations make efforts to become recognized not only as MOOC learners, but also MOOC creators. However, the general awareness level with MOOCs as an effective and accessible contemporary training format is still low in Europe compared to the US (Driha, Friedl & Jansen, 2017).

Many authors agree that contemporary professional learning calls for a reconsideration of the form and design of learning environments, with a special focus on learning technologies and self-regulated learning (Egloffstein & Ifenthaler, 2017). MOOCs are considered a promising alternative in corporate learning, with a number of potential benefits, such as scalability, flexibility and adaptivity to specific company needs. Egloffstein and Ifenthaler (2017) point out that corporate MOOCs differ from the academic MOOCs: (1) They are mostly limited to employees, (2) they are open only within the organization, (3) they often may include face-to-face elements (e.g., discussions) if colleagues are co-located, and (4) they may include custom-built content if the topic requires it. Hence, MOOC creators around the world face an opportunity to tap into the growing demand of business-dedicated MOOCs.

This article is devoted to providing institutions and individual MOOC creators practical advice to design a (or transform an existing) MOOC so that it is attractive for the business community. The presented recommendations are a selection taken from the MOOC BOOK (www.mooc-book.eu), an open resource platform showcasing recommendations, good practice and up to date know-how in regard to MOOC design, promotion, implementation and delivery. The MOOC BOOK and its content was developed under the umbrella of the EU funded-project "BizMOOC – MOOCs for the world of business" (www.bizmooc.eu) by following a sequential mixed-methods approach consisting of 55 expert interviews, six surveys with +2,000 respondents in total, 14 focus groups and the implementation and evaluation of three MOOC Pilots. Thus, the objective of this hands-on article is to introduce future MOOC makers to different opportunities and approaches to upgrade their educational offer to business audiences and cater them with an action plan.

Best practices

Example of a business MOOC: <https://mooc.house/courses/bizmooc2018> (currently in self-paced mode, moderated re-run in November 2019)

CORSHIP – Corporate Edupreneurship: A new project developing a MicroCredential on Corporate Entrepreneurship which includes a business MOOC that builds on the MOOC BOOK: www.corship.eu

Open Textbook based on the MOOCBOOK: <https://moocbook.pressbooks.com>

Boot Camp for Future Business MOOC Makers: Workshop at the EMOOCs 2019 Conference in Naples on 20th of May 2019 https://mooc-book.eu/workshop_emoocs2019/

Selected Recommendations

The recommendations presented here are clustered along the so-called PDP (Promotion/Design/Participation) framework to cover the life-cycle of MOOC creation and implementation.



Fig. 1. PDP (Promotion/Design/Participation) Framework. Source: own work.

Based on the PDP framework, two selected recommendations per area are presented below. For further detail and explanations, we recommend the MOOC BOOK, featuring 25 recommendations, 50 lessons learned and 20 good practices complemented with templates and tools. The MOOC BOOK is published under an open license.

Promotion: ensuring effective outreach and communication to target audiences

- *Ensure that the promotion of the MOOC is targeting a defined audience:* Know the main characteristics and motivations of your (not too broad) target group(s) and identify the respective key selling points. Business learners or HR managers need different incentives than university students.
- *Design and apply a two-stage promotion campaign:* one for the institutions (way earlier) and one for the learners (start early, but not too early as you might end up with many no-shows)

Design: modelling the course structure, content and interface to deliver a rich, stimulating and deep learning experience

- *Carefully choose the platform:* an important criterion for choosing the platform is whether its functionality fits with your MOOC's design and with your target group's expectations and learning style. All functionalities should be evaluated, starting with a convenient sign-up procedure, and ending with available assessment modes and certification options.

- *Strike a good balance between different forms of activities and resources:* Business MOOC learners appreciate a mix of reading, watching diverse video materials, doing self-tests, quizzes, taking part in discussions etc. This diversification helps to cater different learning types/styles, it potentially introduces deeper learning processes and a self-reinforcing learning loop. Remember in this respect that multimedia is important, but only if the content is good and well presented. Animations are generally expensive to produce. If employed at all, their use should be restricted to few key areas.

Participation: defining target groups and fine tuning all elements to its expectations to ensure high retention, engagement and learner satisfaction. The best target group definition doesn't protect you from enrolments of non-target-group users. Don't worry if they don't like the course and drop out. That's fine.

- *Trigger the flexibility and convenience of your MOOC:* respect your target audience's schedule (business learners are busy) and offer flexibility to your learners with different course paths (e.g. define minimum participation requirements, mark "must-have" and "nice-to-have" content, showcase learning pathways). Providing a choice of content according to learner preferences can lead to motivational gains.
- *A well-planned communication policy is key to maintaining learner motivation:* Promote course enrolment, but do not forget to also promote course participation and completion. Stimulate your learners with easy and fun "ice-breaking" activities at the beginning. Be concise and easy-to-follow with instructions and encourage your learners to become co-creators of content throughout the course. Apply educational design tools and well-approved didactical approaches (e.g. Open University's Learning Design Principles, Gilly Salmon's e-Moderation approach or others)

The above PDP framework provides a pathway for corporate MOOC creation and the transformation of existing MOOC materials into a competitive corporate offer, which will meet the demands of digital workplace learning. Adaptive learning designs with flexible modes and access points, content referring to prior knowledge and participant professional experience as well as links to the participants' own professional contexts are important elements of all corporate MOOCs.

In order to optimize the effectiveness of the MOOC to a specific business audience, the adaptability of the MOOC needs to be checked. For example, by exploring whether the MOOC can be reworked to fit into a company learning program/catalogue. Next, can it potentially be adapted to a company competence framework to ensure sustainable uptake in training offers.

MOOCs will become an integral part of corporate learning and training only when the key decision-makers in companies become convinced that this format presents exceptional advantages. Preparing a strategy to introduce a MOOC to decision-makers entails aligning it to company strategy, corporate culture, current employee skills and to prior organizational knowledge. The MOOC key selling points are the concrete benefits for the company, which need to be delivered keeping in mind that the decision-makers might not be familiar with MOOCs and might lack some digital and language skills & terminology. Surely, some organizations will embrace MOOCs faster than others, but it is safe to say that most likely the full potential of MOOCs in the context of professional learning environments is yet to be discovered.

Conclusion

The focus of this paper was the growing demand for high quality business MOOCs to address the needs of digital self-regulated corporate learning. With the selected recommendations in three critical and interconnected areas, readers hopefully get a starting point how to adapt their own approaches and existing materials, such as an academic course, e-learning course or corporate training program, and transforming them into a business MOOC – fitted to the needs and expectations of contemporary professionals. With this short and hands-on article, we hope to have provided some useful hints how to open up an existing educational offer to new audiences.

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The Quality Reference Framework for MOOCs to improve online learning

Innovative impact

The QRF has already achieved direct short-term innovative impact: It was used for the design and implementation for the development of two MOOCs as pilot implementations. They were following different pedagogical approaches (one xMOOC as traditional online course and one cMOOC for collaborative online learning). In both cases, the usage of the QRF was considered as very helpful by the MOOC designers and leading to reduced efforts due to the design support provided by the QRF.

Thus, the QRF will achieve long term innovative impact for the development of MOOCs, too. In addition, the QRF will also help MOOC providers and MOOC facilitators to improve the provision and facilitation of future MOOCs: The QRF Key Quality Criteria and the QRF Quality Checklist are addressing all stakeholder groups offering support for beginners as well as experts.

The QRF can be downloaded for free with an open license from: www.MOOC-quality.eu/QRF

The QRF - based on a broad and truly international collaboration

"The Quality Reference Framework (QRF) for the Quality of MOOCs" was developed by the European Alliance for the Quality of Massive Open Online Courses (MOOCs), called MOOQ. Overall, MOOQ could address and reach out to more than 100,000 MOOC learners, designers, facilitators and providers through dissemination and exploitation activities. The main objective of MOOQ was the development of the QRF that was finalized and published in the year 2018 after more than three years of revisions and refinements.

In close cooperation with leading European and international institutions and associations, MOOQ could involve in the QRF finalization more than 10,000 MOOC learners, designers, facilitators and providers through divers means including the Mixed Methods research with the Global MOOC Quality Survey (GMQS), the MOOQ presentations and workshops at regional, European and international conferences as well as communication and collaboration in traditional channels and social media.

The three dimensions of the QRF

The QRF consists of three dimensions: Phases, Perspectives and Roles.

These three dimensions were carefully selected, discussed and agreed with all MOOC stakeholder groups to cover the different views, requirements and responsibilities during the lifetime of a MOOC.

They are mainly based on the results from the Mixed Methods research by MOOQ: That included the realization and evaluation of the first Global MOOC Quality Surveys (for MOOC learners, designers and facilitators), the 27 semi-structured interviews conducted with MOOC experts (MOOC designers, facilitators and providers) and the MOOQ Workshops at eight international conferences (ICDE 2015 in Sun City, South Africa, OE Global 2016 in Krakow, Poland, EC-TEL 2016 in Lyon, France, OE Global 2017 in Cape Town, South Africa, IEEE EDUCON 2017 in Athens, Greece, ICALT 2017 in Timisoara, Romania, EARLI 2017 in Tampere, Finland and EC-TEL 2017 in Tallinn, Estonia). Furthermore, the QRF has adapted the International learning quality standard ISO/IEC 40180 (former ISO/IEC 19796-1) to the specific requirements and needs for MOOCs.

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The QRF dimensions are explained more in detail in the following sub-sections.

QRF Dimension 1: Phases

The QRF consists of five phases that normally overlap and can be repeated in iterative cycles:

- 1. Analysis (A):** identify and describe requirements, demands and constraints
- 2. Design (D):** conceptualise and design the MOOC
- 3. Implementation (I):** implement a MOOC draft and finalize it through testing
- 4. Realization (R):** realise and perform the MOOC including support and assessment
- 5. Evaluation (E):** define, run and analyse the evaluation and improve the MOOC

QRF Dimension 2: Perspectives

The QRF distinguishes three perspectives that have to be addressed and focused during the different phases:

- 1. Pedagogical:** how has the MOOC to be designed and developed?
- 2. Technological:** how has the MOOC to be implemented and realized?
- 3. Strategic:** how has the MOOC to be managed and offered?

QRF Dimension 3: Roles

The QRF covers three roles and indicates their involvement and responsibilities in relation to the phases and perspectives:

- 1. Designer:** Designer includes content experts, content authors, instructional designers, experts for MOOC platforms, technology-enhanced learning and digital media as well as any others who may contribute to the design of a MOOC.
- 2. Facilitator:** Facilitator includes the pedagogical facilitators and experts with content knowledge (such as moderators, tutors, teaching assistants) who manage forum, provide feedback and monitor learning progress, the technical facilitators (such as technical support for learners) as well as others who may contribute to support participants in their learning process in a MOOC.
- 3. Provider:** Provider includes the (internal and external) MOOC providers, the technical providers (such as technology providers, programmers, software designers and developers), managers, communication and marketing staff as well as others who are involved in the decision-making processes leading to the delivery

of a MOOC.

The structure of the QRF

The QRF presents the quality framework as general template to be adapted together with two applications: the QRF Key Quality Criteria for MOOC experts and the QRF Checklist for MOOC beginners:

QRF Key Quality Criteria for MOOC experts

The QRF Key Quality Criteria are provided in a table for experienced MOOC designers, facilitators and providers. They are intended as support for analysing, designing, implementing, realizing and evaluating a MOOC. The QRF Key Quality Criteria are defined as action items for potential activities in the different processes.

QRF Quality Checklist for MOOC beginners

The QRF Quality Checklist presents leading questions for all three QRF dimensions. They are intended for both, beginners and experts in the MOOC design and development. Therefore, the QRF Quality Checklist serves as a starting point and a reminder on critical issues to be addressed. It complements the QRF Key Quality Criteria that defines the phases and processes of the MOOC design and development.

Usage and benefits of the QRF

To use the QRF, it is most important to adapt it to own specific needs. MOOC designers, facilitators and providers have to select and define the relevant phases including their perspectives and roles according to their own situation, learning objectives, target groups, context and further conditions. Such adaptations should be documented to inform all involved stakeholders as well as to allow their review in the evaluation and further improvement of the MOOCs.

There are four core benefits of the QRF: First, the QRF provides a generic framework that can be adapted to each specific context. Second, the QRF identifies key quality criteria for better orientation on the MOOC design. Third, the QRF presents a checklist for the quality development and evaluation of MOOCs. And fourth, the QRF enables a continuous improvement cycle for MOOC design and provision.

Conclusion

The QRF is the first and unique guideline for the quality of MOOCs based on Mixed Methods research and involvement of the global MOOC community. The included QRF Quality Checklist offers MOOC beginners an easy tool for the design and implementation of a first MOOC. And the QRF Key Quality Criteria support MOOC experts to continuously evaluate and improve their MOOC designs. Thus, the QRF will improve the future MOOCs and online learning in general.

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Innovative impact

The Educational Content, Methodology and Technology Laboratory (e-CoMeT Lab) of the Hellenic Open University (HOU) through its department for MOOC methodology studies, design and development aims to enhance the adoption of MOOCs in Higher Education Institutions (HEIs) in Greece. Investigating the strategy of Greek HEIs about MOOCs, e-CoMeT Lab attempts to contribute to the establishment of a Greek consortium, which will promote the development of MOOCs, as an upcoming educational policy of Greek HEIs. The existing strategy will align with the European policy for MOOCs, following the quality standards applied by the European MOOC community.

E-CoMeT Lab vision is to develop and promote innovative forms of learning and teaching, which will offer new educational opportunities in the higher education landscape without restrictions of age, socioeconomic background, educational background and skills. This new mean of learning and teaching will be accessible for anyone, from anywhere and at any time.

Investigating institutional MOOC strategy in Greek HEIs

Introduction

In the last five years, there exists a substantially increasing development of Massive Open Online Courses (MOOCs) by Higher Educational Institutions (HEIs) in Europe and worldwide. MOOCs are open accessed online courses with no limitation on class size. MOOCs offer course materials (text or video) openly online, with computer-marked copyrighted quiz-like assessments, badges and certificates of completion, suitable designed and implemented on websites like Udacity, edX, Coursera and FutureLearn. For the Institutions, the benefits of MOOCs include an increased profile and number of potential students.

In Europe, OpenupEd is the first MOOC initiative offering MOOCs that contributes to opening up education. It was launched in 2013 by EADTU, the European Association of Distance Teaching Universities, the leading institutional association in online and open higher education. OpenupEd, offers to its partners and stakeholders various services, best practices, and support, in order to successfully operate and use their own platforms, to the benefit of the individual learners of higher education and the wider society.

The Hellenic Open University (HOU), a member of EADTU, in the context of its upcoming institutional MOOC development is aiming to become a MOOC key player on the higher education landscape in Greece. HOU is now conducting a survey aiming to investigate the possible MOOC strategies of the other national public Higher Educational Institutions.

This article presents a summary of an ongoing survey research about the MOOC strategy amongst the Higher Education Institutions in Greece. The responding HEIs are publicly financed institutions which offer undergraduate and postgraduate programs in the traditional way.

MOOC Strategies in Greek HEIs

The MOOC strategy identifies the design, development and exploitation of MOOC either in national or in institutional level. As compared with other countries worldwide, there have not been many organized efforts to have MOOC developed in Greece. The adoption of MOOC as an educational method in higher education in Greece is at an immature stage (Kappas & Tsolis, 2018) and no definite strategy related to their use has been presented either at national or institutional level, contrary to the rest of Europe, where a growing number of institutions already offer MOOC. The economic crisis in the country which has affected financing in higher education (Zmas, 2015) may be a reasonable explanation for this situation.

Higher Educational Institutions in Greece should catch up by investing more in creating MOOCs on a larger scale, based on institutional and national strategies.

The most extensive action in Greece concerning MOOC is the Mathesis Project (Mathesis, 2019), which was founded in 2015 as part of the University Publications of Crete and aims to act as the national MOOC provider. Another action concerning MOOC is the Coursity Platform (Coursity, 2019) resulting from the collaboration between the centers for Lifelong Learning (KE.DI.VI.M) of the University of Ioannina and the Aristotle University of Thessaloniki. Its aim is to become the MOOC provider of all the centers for Lifelong Learning of the Greek Universities.

The need of conducting a survey for MOOC strategies in Greek HEIs?

The above actions are individual efforts and lack central funding and strategy to expand. A main issue is the recording of the opinion of the Institutions about the MOOC landscape. This short report is a summary of the research that we are conducting at a national level in order to record the trends of adopting MOOC as an educational approach in the field of Greek higher education. This research aims to explore the intentions of other institutions around this issue:

- How many universities offer or intend to offer MOOC in Greece?
- Which development model do those Institutions choose (private platform, MOOC providers, etc.)?

The case of HOU

The Hellenic Open University, utilizing its long experience in open and distance education combined with the fact that it is the only University in Greece that supports in distance studies, has adopted a strategy for MOOC and is planning to invest in the development of high quality Massive Open Online Courses of general interest. To this end, the Educational Content, Methodology and Technology Laboratory (e-CoMeT Lab), whose overall aim is to support all members of the HOU community in the creation, adoption, certification and implementation of quality educational material and the use of innovative educational technologies, undertook the designing and development of the infrastructure, processes and standards for the creation and the provision of MOOC.

The HOU's MOOC strategy is part of the broader strategy of the Institute for Open Access to Knowledge that includes key actions for Open Educational Resources and Short Learning Programs, aiming at massive participation that promote lifelong learning. This "Open Access to Knowledge" - approach (see Figure 1) aims to act as a means of promoting and advertising the quality and culture of education offered by the HOU.

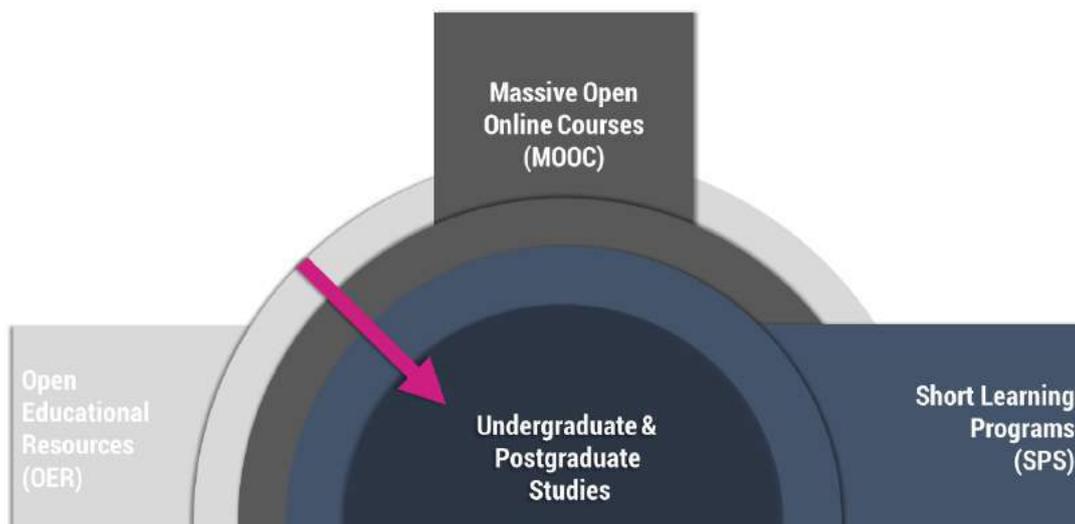


Figure 1: The HOU Philosophy for Open Access to Knowledge

The survey methodology

This survey concerns an ongoing study which aims to explore the view of stakeholders about the importance of MOOC for their Institution and outlines the core axes of exploiting MOOC in the educational process. This research is part of the research activities of the e-CoMeT Laboratory along with the development of MOOC and is carried out at a national level in order to record the trends of adopting MOOC as educational practice in Greek higher education, as mentioned earlier.

Instrumentation

In order to explore the trend around MOOC, stakeholders are being asked to fill in a questionnaire aimed at mapping MOOC's institutional strategy. 31 questions were included in the questionnaire of which mainly are closed type of questions. The questionnaire opened the 1st of December, 2018 and will remain open until the 31st of May, 2019. The questionnaire was inspired by the questionnaire of EADTU about Institutional MOOC strategies in Europe conducted in 2014 (Jansen & Schuwer, 2015) and 2015 (Jansen & Goes-Daniels, 2016) which aimed at exploring the strategies of HEIs for MOOC at European level and was adapted to the needs of the Greek case.

The questionnaire consists of 2 sections: The first one contains some general information of the Institution. The second one, contains questions about the Institutional MOOC Strategy. The questions added to the second section are divided into two major parts. In the first part stakeholders are being asked to record the current situation about MOOC in their Institution. In particular, they are being asked:

- if their Institution has a defined MOOC strategy,
- if they are developing or intending to offer MOOC as an objective of this strategy,
- if they use MOOC that other Institutions offer,
- which provision method they have selected (through a MOOC provider e.g. Coursera or through proprietary infrastructure).

The second part of the questions investigates the Institutions' ultimate intentions for investing in MOOC like University reputation, economic benefits, attracting new students etc.

The analysis of the collected data will result in a report describing the current situation and general trends related to the introduction of MOOC in Higher Education in Greece.

Participants

In total, the questionnaire will be sent to almost 15 Universities and Technological Education Institutions. The recipients of the questionnaires are expected to be the rectors of the educational affairs of the institutions as they are the most competent persons to answer, but also experts in the distance education departments of these institutions. The number of questionnaires to be answered is expected to vary due to the upcoming merging of Universities and Technological Institutions in the context of restructuring Higher Education in the country.

Conclusion

Many, outside Greece see the MOOC as the future of higher education, but how much truth is there in that is quite a debatable issue in the Greek case. The fact that Greek Universities have not proceeded with the implementation of MOOC for the general public is perhaps a reflection of the low demand from Greek society. On the other hand, it may mean that the reflexes of the tertiary education system in the country have not worked properly to meet the potential increased needs for non-formal learning. Institutions should respond to this need so a series of surveys like this should be carried out in order to capture all aspects of the MOOC trends.

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AgileAMK production model for creating MOOC-type courses

Innovative impact

A short-term innovative impact of creating the AgileAMK production model will be caused by the high-quality, open online study modules on sustainable energy solutions. They were created, to some extent, as a by-product while testing and piloting the AgileAMK model.

The study modules are freely available, and their purpose is to promote utilization of more nature-friendly and sustainable energy solutions in everyday contexts, on the grass-roots level, as well as commercially in private companies.

The long term innovative impact is the AgileAMK model itself, because it can be applied freely by anyone for agile and flexible online content production. It is best suited for the creation of MOOC-type courses.

Introduction

In 2015-2018 ten Finnish universities of applied sciences joined their forces in a national ESF funded project "New open energy" (Uutta avointa energiaa). Eighteen MOOC-type online courses on "Sustainable energy solutions" and "Nearly zero-energy building" were created and piloted in Finnish and in Swedish.

Another outcome besides these courses was the AgileAMK model - an agile online course production model that is based on re-using existing educational materials and resources from degree programmes. The model was created, iterated, refined and fine-tuned during the project. The essential outcome of this project is available on the DIGMA.FI learning platform.

AgileAMK model

In our rapidly changing world, where we are facing pervasive digitalization in education, higher education institutions, including universities of applied sciences (UASs), need to adapt their practices and models to meet the new normal. When creating MOOC-type courses, much of the educational content, resources and materials required for the course appear to be available in our degree programs. However, the implementations of UAS degree programs, as well as continuing education studies are typically too heavy and compact to be utilized for MOOCs as such.

To face this challenge, ten Finnish universities of applied sciences (UASs of Tampere, Oulu, Lahti, Turku, Kajaani, Satakunta, Haaga-Helia, Novia, Arcada, Centria) jointly developed the AgileAMK model. The Finnish abbreviation AMK equals UAS in English, so the name of the model could be translated as AgileUAS model. This model enables UASs to respond flexibly, cost-effectively and with high quality to the needs of working life. AgileAMK model is a facilitating tool in contexts, when existing educational resources need to be quickly and flexibly re-designed for MOOC-type courses. The AgileAMK model is loosely based on Scrum, Kanban and Scrum-ban software production models and methods.

As described in image 1, there are several elements and phases in the AgileAMK process. Initially, contacting and communicating with the stakeholders is of utmost importance. In this context it is also necessary to define the the product owner, for instance, the owner of the MOOC-type courses in our case.

Best practices

One of the best practices to share from the New Open Energy project is, besides the AgileAMK model itself, is the flexible way to use development teams.

In our experience, the AgileAMK master should keep the focus on facilitating the process according to the model, and he should not try to act as a substance expert. Another team member is required to act as the substance leader and chairperson of the team. Engaging expertise from the private sector companies into the development team is an asset.

Among best practices are also the AgileAMK quality control cards developed during the project. In many instances, they can be applied even separately from the AgileAMK model to enhance the quality of MOOC-type courses.

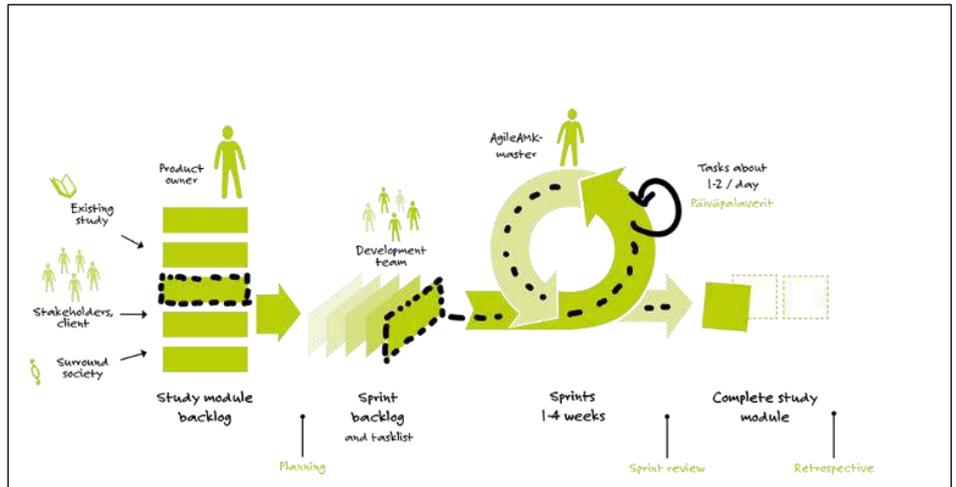


Image 1: Visual presentation of the iteration phases of AgileAMK production model

With the stakeholders and the product owner it is necessary to identify the meaningful large entities, the "building blocks" that consist the study module backlog, which acts as the backbone of the course production process. Working takes place in development teams consisting of experts acting in different domains, faculties and private companies.

The study module backlog entities, one at a time, should be split it into small enough concrete tasks which can be finished in a couple of days. This phase can also be called creating the sprint backlog. In the next phase the tasks from the sprint backlog will be thrown into the sprint cycle until they are all finished. A sprint usually takes from 1 to 4 weeks. The AgileAMK Master's main responsibility is to make sure that the sprints keep rolling, and nobody gets stuck. All the way the AgileAMK quality control cards for MOOC-type courses will be applied. The results of the sprint are reviewed, and necessary corrective measures are taken. The retrospective in our model means getting feedback of the functionality of the model as such, no so much of the MOOC to be created. Then it is time to take the block form the Study module backlog and repeat the steps mentioned above, until the MOOC is ready.

The AgileAMK production process and its stages are visualized in a more systematic way in image 2.

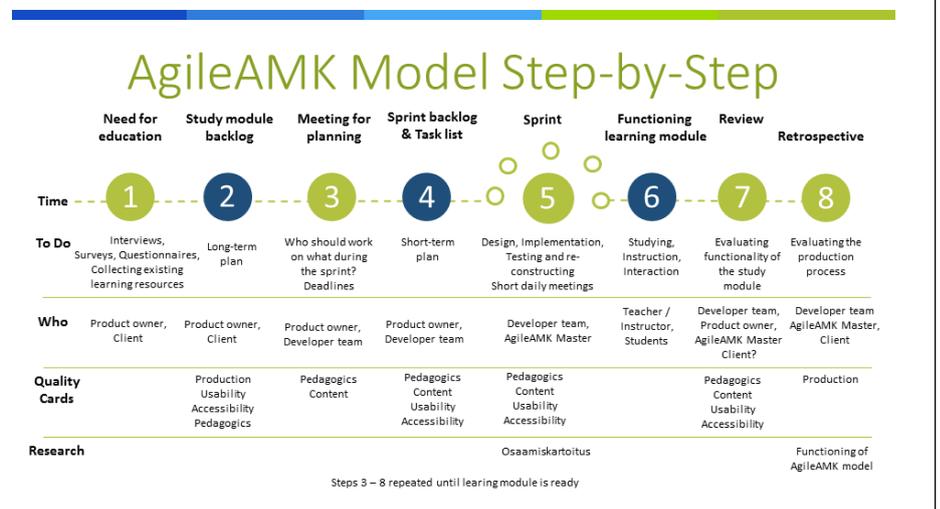


Image 2: Step-by-step presentation of AgileAMK model

Especially the role of the AgileAMK quality cards is made more specific in the step-by-step presentation. Moreover, the step-by-step scheme might be easier to approach when applying the model for the first time. For those who want to learn the AgileAMK model more profoundly, an open self-study course is available in Finnish on the DIGMA.FI platform.

Pilot courses

Our intention in the project was initially to create two extensive pilot MOOCs, one on Nearly zero-energy building, and the other one on Sustainable energy solutions, in order to test, develop and iterate the AgileAMK model. However, by the end of the project we decided breaking the two large courses into 18 MOOC-type study modules, whose extent was smaller than the full MOOCs. We ended up creating smaller educational entities than we initially expected.

We had two different production teams, one for the Sustainable energy solutions, and another for the Nearly 0-energy building. The teams applied the AgileAMK model throughout the production of the courses. Both teams had a substance-based leader, and the AgileAMK master was responsible for monitoring the AgileAMK process. Private enterprises participated actively in providing some of the course content.

During the pilot phase feedback from the users was mainly very positive. After running the pilot courses once with instructors, the courses were re-adapted to serve as self-study modules. At the moment they are openly available in Finnish and partially in Swedish in the Energy section on the DIGMA.FI learning platform.

Conclusion

The main objective of our ESF-funded "New open energy" project was to create a flexible model for reusing and recycling existing learning resources in MOOC-type courses. The model turned out to be a success in a sense that it helped our multidisciplinary production teams in designing and implementing study modules for MOOCs in a quick and flexible manner. The companies welcomed the situation that the courses were instantly open and available for their personnel.

The hard work was rewarded, when the Finnish Clean Energy Association (Lähienergialiitto) nominated the New Open Energy project as the winner of the Local Energy Solver competition in 2018. The rationale behind their selection was, for instance, that " (...) the "Nearly 0-Energy Building" and "Sustainable Energy Solutions" courses represent important areas of expertise, and the course material is of high quality".

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Innovative impact

MOOC courses allow you to acquire or supplement knowledge and adjust learning to your needs at the same time. They can be used as a complement to regulated courses or as a way of disseminating knowledge to society.

This experience has allowed us to use the MOOC courses with a triple purpose: use as a collaborative tool of a European project, dissemination of knowledge about the EU and as an instrument for citizen reflection and discussion with the support of specialized tutors.

The first MOOC was implemented on Moodle and the second one on UnioviX. Both courses incorporated different kind of resources and activities. The evaluation was carried out with the elaboration of several questionnaires and a Peer to Peer evaluation.

The main innovation is the combined use of training and citizen debate. In the long term, innovation can be the diversity of the target group. This will not only be formed by people interested in acquiring a better education but also in understanding better the society in which they live.

Designing a MOOC course for promoting the active participation of European citizenship

Introduction

The European Commission has created the "Europe for the Citizens" program in order to promote the active participation of citizenship in the EU democratic life. In this context, six European cities, led by Gijón (Spain), have developed the project "*The impact of the Euroscepticism on the Construction of Europe-CITIZEU*".

In order to achieve the participation of citizenship, the project has focused on the potential offered by the MOOC courses as a tool that allows the students to acquire knowledge and exchange ideas.

The development of the Project includes two MOOC courses in collaboration with the University of Oviedo.

The first course has been implemented by the University of Oviedo and the European and International Affairs of the Gijón City Council. The objective is to provide basic knowledge about the history, institutions, achievements and multilevel government of the EU.

Once this is achieved, the second course aims to promote a discussion of the reasons behind the current rise of Eurosceptic in the EU and its impact on the future of the European project. This second course, currently under development, results from the collaboration of the six cities that are part of the project, thanks to the support of UnioviX, the MOOC platform of the University of Oviedo.

The final goals are to promote a better understanding of the European Union, to increase tolerance and knowledge of the different European countries, and to create a European identity through the intervention of all the participants in the project.

This paper analyses the project design, their approach, the resources, their implementation and their results.

Project Design

Europe for Citizens Program Europe is a European Program managed by the Executive Agency in the field of Education, Audio-visual and Culture (EACEA). It has been promoted by the European Commission and is part of the Europe 2020 Global Strategy. It is directed to contribute the citizens' understanding of the EU and to encourage their democratic participation at EU level.

One part of this program is named "Democratic engagement and civic participation". This part aims at strengthening the general public's understanding of how EU policies are shaped today. It also fosters the close involvement of civil society in European policy-making.

In this context, the city of Gijón formulated the project "The Impact of Euroscepticism in the construction of Europe". This city created a consortium for the execution of the project with Nuremberg, Genoa, Alba

Best practices

- Experimenting with MOOC to increase its use as an instrument of formation and citizen debate.
- Taking advantage of the MOOC courses to train citizens committed to their environment.
- Integrating MOOCs in a social projects.
- Using MOOCs as a way to disseminate the contents for different purposes and not only for educational ones.
- Using MOOCs as a way of collaboration between institutions.
- Exploring the models of activities that allow greater participation.
- Connecting different territorial areas looking for a common cooperation to build a better Europe.
- Using MOOCs as a way to exchange experiences.

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Iulia, as well as a Finnish NGO (AEKS), a Belgian think tank (CEPS) and the University of Oviedo. The goal of this organisation is to link citizens of six European cities to understand the European Union. We believe that this can produce a multiplier effect, a territorial connection between different territorial areas and, finally, common cooperation for building a better Europe.

The concrete objectives of this project are:

- To provide knowledge about the institutional structure or the European Union, its history, its achievements and its multilevel governance system.
- To promote a proactive understanding towards the origins, consequences and possible solutions of the rise of Euroscepticism and the possible effects.
- To focus from the local perspective on problems of the EU.
- To be aware of the effects that different national issues can bring for all (ex. Brexit, future elections, etc.).
- To contribute to the understanding of the EU, its image, promotion of citizen participation, identity, etc.

In order to achieve the direct participation of citizens, we have designed two MOOC courses, with two calls each. The first one deals with basic issues of the EU and the second one addresses the deepening of some of the European policies, as well as the problems that arise in the future, their causes and possible ways of avoiding them.

The first course was "Europe is YOU: basic course about the EU" and the second one is "The European Union as an agent of change". These courses were offered in Spanish and English, in order to achieve the highest participation from different European countries.

Implementation and resources

For the development of the MOOCs it was essential the collaboration of the Teaching Innovation Center of the University of Oviedo.

For the courses, we proceeded to create two separate packages of knowledge structured in a closed manner, covering the essential aspects for the subject to be treated. In addition, in order to facilitate both generic and specific knowledge of the subjects of each of the courses, we also collected information, documents and audio-visual resources.

This package was proposed in six independent units so the students could choose the ones most useful to them. The University of Oviedo and the European and International Affairs of the Gijon City Council produced the first one and each of the partners were responsible for one of the each units.

Its content was structured for multiple accesses, with a basic written, audio-visual body and the support of additional documentation.

Despite its self-instructional nature, constant support and feedback were offered to the students. An interaction between the students themselves was also included, through their interventions in different social networks, supervised in any case by the course team.

Valverde, J. (2014). MOOC: Una visión crítica desde las ciencias de la educación. *Revista de curriculum y formación del profesorado*, 18 (1), 93-111 (<http://www.uqr.es/~recfpro/re v181ART6.pdf>) (26-03-2019).

The control of the first course was carried out simultaneously from the didactic and technical point of view, by the teachers of the course and the members of the Teaching Innovation Center.

In each subject there is a self-assessment questionnaire, so the students can check for himself the degree of assimilation and learning.

Each one has also a participatory section. In this section, tasks and activities related to the subject matter are proposed, to be shared in social networks. There is a specific platform for general participation, called "*Gijón participa*". In addition, to encourage participation, specific accounts were created on Facebook and Twitter.

In order to evaluate the acquirement of knowledge, the first MOOC had a final questionnaire. For the second one, we have also designed a *Peer to Peer* evaluation.

The methodology used combines self-learning with guided learning, given that it is not yet sufficiently generalized and it was deemed necessary to motivate the students and solve their doubts as the courses were developed. It also mixes learning from the materials provided by teachers with active learning, built through the interaction of the participants.

Results

Differences have been observed depending on the platform of the course. In the edition offered through Moodle, there was a majority of students of the University of Oviedo. But in the editions developed through Uniovi the students were more heterogeneous and came from different countries: Mexico, Argentina, Italy, Finland Romania and, also, from Spain.

Some participation and debate have been achieved, although less than expected. In the part of the project that remains to be developed, it is expected to increase the participation and also the opening of the courses to more students.

The participation of the students could be done through many social networks (YouTube, Instagram, Facebook, Twitter and the Gijón platform). However, in the first course the students were more active in the forums of the course than in these networks. For this reason in the second course, participation is limited to the discussion forum of the course and the Gijón platform.

Despite this, this new way of teaching has been implemented successfully, with the development of different resources designed to provide information in the most effective way for students.

With regard to the participating students, their perception of the course already carried out can be considered excellent. They have evaluated it with a score of 9.3/10.

The entities participating in the project will discuss these results electronically at the different stages of development of the general European project. In addition, they will be analyzed in face-to-face meetings to which the citizens are called.

Conclusion

The project responds to different strategic lines of the University of Oviedo:

- Represents a new way of knowledge transfer.

- It involves the integration of a university project with a European call, with the participation of different entities and international organizations.
- It implies a new channel of dissemination of the research activity.
- It is developed with social agents in the Asturian, Spanish, European and international field.

It is considered a success to have been able to program and develop two MOOC courses, taking into account the null experience of its teachers in this kind of teaching. Although this would not have been possible without the constant support of the team of the Teaching Innovation Center of The University of Oviedo.

Our first conclusion is that it is perfectly possible for a traditional professor to implement a MOOC course, but the necessary effort may be too serious for an inexperienced team.

Our second conclusion refers to students. We have observed that the great most of them are young people, between twenty and twenty-five years old. This may be partly because many of them are university students. But we think that age is also a factor that influences the choice of digital pathways with respect to learning.

Finally, we have observed a low tendency to implication. We think it is necessary to make them aware of the importance of this.



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Innovative impact

The article addresses the need to develop thorough quality assurance processes for Open Education Resources and the recognition of students as equal partners in these processes. As MOOCs are moving more and more towards being a universally recognized method of (higher) education, and are even integrated into some institutions' curriculums, it is essential that they be held to the same standard of quality and stakeholder involvement as the rest of education.

Students at the forefront of assessing quality of MOOCs

Introduction

The paradigm shift of traditional learning methods towards innovative learning is a common desire for leaders of learning. This is caused by many external imperatives such as rapidly moving technological advances and evolving Open Educational Resources, access to the enormous quantity of information and data, societies being more open, inclusive and democratic, etc.

Massive Open Online Courses (MOOCs) are gradually recognised by the formal education providers who want to better respond to the needs of their learners. MOOCs are an advantage for opening higher education to a wider group of students, exercising Universal Design for Learning and reducing the barriers of participating in learning at a higher level. If developed keeping universal design in mind, they can be freely available to all students regardless of their background. However, MOOCs should not be seen as a way to replace the availability of traditional learning, as well as for its' reduction and cost cutting. These tools are the most useful when used in tandem with other learning methods to enrich the on campus education - diversity in available learning methods is key.

As for traditional learning, Quality Assurance (QA) processes should be commonly and genuinely defined for MOOCs provision. Merely using or providing MOOCs does not necessarily state the comprehensiveness, correspondence and authenticity of the course, shortly - there is no guarantee of the quality unless there are measures taken in this regard.

Quality not an objective, but a measure for a specific purpose

Many would ask how to achieve the objective of having quality online learning. That is where we start failing since quality is not an objective but a measure for a specific purpose (Hood & Littlejohn, 2016). The approach to the purpose of education varies between different stakeholders. A study 'MOOC Quality and its' use by different target groups' developed within the Erasmus+ SCORE2020 project suggests that quality of MOOCs can be considered from at least the following four perspectives:

1. Quality from the learners' point of view.
2. Quality connected to the pedagogical framework of the MOOC.
3. Quality related to the input elements.
4. Quality based on outcome measures.

Meanwhile we would develop the idea further and suggest that above-mentioned perspectives consider learners' point of view. For each aspect of quality, the perspective of learners/students may be from quite diverse viewpoint. One possible illustration of the diverse understanding of the meaning of a "quality" course or curriculum is the European Standards and Guidelines (ESG) first published in 2005 and thoroughly revised in 2015. This set of guidelines highlights a great variety of

Best practices

In a future where student involvement in OER has been achieved, we can look forward to better and more inclusive courses. However, we firmly believe the next step should be student involvement in the process of MOOC design. This has already been piloted via the EU-funded, [BizMOOC](#) project, where students were heavily involved in producing a MOOCbook - a toolkit for producing quality MOOCs - and a pilot MOOCs "[Learning with MOOC for professional development](#)", "[How to generate innovative ideas and how to make them work](#)" and "[Intrapreneurship: Make your business great again](#)". All three of these courses have been produced as a part of an Erasmus+ funded project with the aim to enable businesses, labour force and universities to increase their activities and exploitation potential of MOOCs. To date, 3 MOOCs have been produced, all of which have first been reviewed by a group of experts that involves students. The experts are given an opportunity to provide feedback to the course before it is published, thus increasing the quality of the MOOC and giving a more diverse perspective on the soon-to-be-published MOOC. This inclusion of learners in the course-creation process is something that is already practiced in the contact-study institutions, but rarely heard of in the MOOC community.

It is clear that the student involvement cannot simply be a survey at the end of the course. The education community and all its members have moved on

aspects to keep in mind when assessing quality of study in any institution. While the traditional contact study QA may be up to standard, the digital part of learning be it via MOOC or other OER often escapes attention. This attitude is deeply flawed - digitalization is an increasingly important part of the students' learning experience and yet when it comes to QA, the rules are usually considerably more lax. This is due to several factors; among others:

1. MOOCs are seen as a supplementary part of a student's experience and are therefore not given enough attention.
2. MOOCs are a relatively new form of study compared to what might be called "traditional" contact study - this novelty creates confusion regarding how to approach the quality aspect of MOOCs.
3. Several more well-known MOOC platforms, being private business enterprises, are separated from the academic world and the QA procedures of formal education do not apply to them.

The standards and guidelines used by higher education institutions to evaluate their courses might not be universally applicable to MOOCs and other Online Education Resources (OER), but a great many, such as Student Centred Learning (SCL) and on-going monitoring of courses are essential.

Student engagement in Quality Assurance – feedback at the end of a MOOC is not enough

Frequently, when speaking about students' engagement in QA, students are seen as a large and often homogenous group of respondents who provide their feedback at the end of a course. The same approach is usually applied to MOOCs. This does not really integrate the learners in the process of QA. In this vision of QA, students are a passive group that provides its feedback only after having received their education. Thus, their own feedback will never affect their own study experience and furthermore, the students never get a good overview of how feedback affects the course they have already completed and will not engage in again. This approach is extremely harmful for MOOC QA, rather than for traditional learning for a simple reason that not every learner may complete the online course. In fact, often the learners who do not complete courses can have the most useful feedback - e.g. what held them back from completing the course and what can be improved?

Bringing MOOCs into the conversation of QA is increasingly important as the integration of MOOCs into courses and curricula becomes more prevalent. Such cases are elaborated on, for example, in Orsini-Jones, Conde Gafaro & Altamimi's (2017) report on the integration of a MOOC in a post-graduate curriculum focusing on language learning. The case shows that successful additions of OER cannot come out of "thin air" - the curriculums integrating MOOCs into their content have often already been actively using other OER, such as forums and online testing. Courses already using OER often receive positive feedback on that, especially when the online portion of the course is thought-out and well designed. However, should the online content be poorly put-together, it can negatively affect the outcome and learning experience of the course, creating more study time devoted to familiarizing oneself with a new and sometimes not user-friendly system. The case of Orsini-Jones, Conde Gafaro & Altamimi is also a good example of how MOOCs can be used not only in technically oriented curriculums, but also in Artes Liberales, social sciences and a whole spectrum of other curriculums.

to much higher standards in traditional education. The digital aspect of studying should not be subject to a different or more lax treatment in this regard - especially with the increasing number of tools available to us. Students can be widely consulted either in writing, via interactive consultation methods or online meetings. As the scope of possible areas of study covered by MOOCs widens, so should the methods of QA.

In the testing phase, significant feature is to engage students with two essential roles - as examinee and as an observer. This will facilitate the formation of the students' perspective on the learning process itself.

The third phase which is the actual application of the MOOC for its' purpose, have the most specific and peculiar aspects to consider in conjunction with the group of attendees, the purpose of learning, accessibility of the materials for people with special needs, etc. At this stage, the enrolment rate of learners is common to be regarded as an indicator for success and quality of the MOOC. Meanwhile, the completion of the course should be much of interest rather than enrolment numbers. In comparison to traditional courses enrolment to the online course does not actually bind learners to finish it (with the exception of those integrated into a degree programme), which means that low quality MOOC will tend not to be completed. We do not state that all dropouts are caused by this reason, but still this aspect should be under investigation of the QA team working in charge for the MOOC particularly targeting to get the perspective of learners. If you try to enrol in any online course and leave it unfinished,

Taking into consideration unique attributes and aspects that require distinctive stance, we can try to underline several phases for student engagement/involvement in QA of MOOCs:

- Instructional designing of MOOCs,
- Testing the MOOCs,
- Distribution of the MOOCs among learners,
- Completion of the MOOC by learner.

For each of these phases a thorough investigation is required on the possible measures for student engagement. Many questions arise depending on the purpose of MOOCs, e.g. are they used within a traditional learning environment as a part of curriculum with a special target group of students, or do they serve as a separate course with no defined learners' group and with no need of a certain study/knowledge background?

At the instructional designing phase what we firstly need to discuss is whether a traditional learner, who does not have the experience of digital learning, is skilled enough to quality assure the MOOC. If they are not, the question becomes how to develop these skills both for the student, as well as for the rest of the group involved at the instructional designing phase. In any case, the purpose of engaging the students at this phase should target to examine their learning experience both at traditional and non-traditional setting, to consult and discuss with them as experts in learning.

Conclusion

The above-mentioned practical approach might be considered for assuring the quality, but if trying to find common guidelines and/or regulations for the MOOC QA, we might encounter different approaches. Various checklists and instruments are developed by researchers and within projects, such as the recent "Considerations for quality assurance of e-learning provision" developed by ENQA (which, however, excludes MOOCs and OERs), but the policy level documents do not seem to be fully comprehensive. Are the ESGs applicable for the QA of MOOCs or should there be new standards developed? Are the QA agencies equipped enough to exercise the accreditation for MOOCs? And is student engagement promoted enough for achieving the quality?

These and many other questions should undergo deep discussions at the policy level to secure that we do not create another bubble within the academic reality and do not restrict students' significance in this process. We believe that a common initiative should be developed within the European Higher Education Area (EHEA) for ensuring and enhancing the quality of this type of education provision, and the recognition of the achieved learning outcomes. Ultimately, digitization of higher education should not lead to a decrease in quality of education programmes and to budget cuts in universities.

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you will be regularly reminded about the need to complete it even after months/years. However, in most of the cases, learners are not asked about the reasons that caused them to not complete the course. Meanwhile this measure will reveal and improve various quality aspects of the course.

In the final phase, the learners are notified of how their feedback is/was used for the quality improvements.

[MOOC%20Quality%20and%20it%E2%80%99s%20use%20by%20different%20target%20groups.pdf](#)

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Innovative impact

A critical analysis of MOOCs didactics should reflect that the learning process is quite unimaginative, transmissive, and mechanical. Effectively, most MOOCs are displaying quite simple learning processes. Nevertheless, a simple teaching style doesn't mean that it's a boring learning way. Gamification provides new opportunities to motivate, incite, and engage learners. We are explaining specific strategies based on three dimensions: the teacher, the learner, and means. We invite providers, designers, teachers, tutors, and creative people to reflect about.

Introduction

Callois (1961, cited by Stieglitz, 2016) differentiates between playing (free-form and non-rule-based) and gamification (goal-oriented and rule-based). Considering this difference, the gamification has goals that orient the actions and has an organization based on rules. According to the MDA framework, the gamification is based on game mechanics that produce dynamics that produce aesthetics (Hunicke et al., 2004, cited by Stieglitz, 2016). This approach is quite interesting as it highlighted the relevance of the process and the experience. In other words, only the mechanics do not assure a playfulness, funny experience.

The gamification concept

Deterding et al. (2011, p. 13) assert that "Gamification' refers to the use (rather than the extension) of design (rather than game-based technology or other game-related practices) elements (rather than full-fledged games) characteristic for games (rather than play or playfulness) in non-game contexts (regardless of specific usage intentions, contexts, or media of implementation)." They add another limitation: the part instead the whole approach. The gamification would focus design elements of games, rather than whole games or playful elements or playing artefacts (toys).

Kapp (2012) describes two types of gamification: the structural gamification and the content gamification. The first one is the application of gamification elements that do not change the contents. The second one alter the contents to make them more game-like. Lehto et al. (2018) applied Moodle tools as levels, the progress bar, and the Stash tool to pick up objects into a repository inside the course. In addition, they offered games about learning contents such as Hangman, Crossword, Cryptex, Snakes and ladders, Hidden picture, Millionaire and Sudoku.

Nowadays, gamification is often related to technological means. However, Deterding et al. (2011) state that "Not only are media convergence and ubiquitous computing increasingly blurring the distinction between digital and non-digital: games and game design are themselves transmedial categories" (p.11). This observation is also relevant to extend the gamification possibilities to the whole process and means in Education.

However, in concordance with Ferguson et al. (2019), we sustain that playfulness in learning cannot be excluded and "can take many forms, including: pretend play, mobile play, digital games, developing playful values." (p. 8)

Best practices

Usually, the conferences proceedings are the best reference to find examples of experiences and proposals for gamification. In this case, we recommend specially:

- Proceedings of the International Academic MindTrek Conference on Envisioning Future Media Environments.
- The Online, Open and Flexible Higher Education Conference.

In the other hand, some reports collect interesting experiences, not only in higher education, that could be transferred or could inspire university teachers and designers. We specially recommend:

- Castaño Muñoz, J., Punie, Y., Inamorato dos Santos, A., Mitic, M. & Morais, R. (2016): How are Higher Education Institutions Dealing with Openness? A Survey of Practices, Beliefs and Strategies in Five European Countries. Institute for Prospective Technological Studies. *JRC Science for Policy Report*, EUR 27750EN; doi:10.2791/709253
- Ferguson, R., Coughlan, T., Egelandsdal, K., Gaved, M., Herodotou, C., Hillaire, G., Jones, D., Jowers, I., Kukulska-Hulme, A., McAndrew, P., Misiejuk, K., Ness, I. J., Rienties, B., Scanlon, E., Sharples, M., Wasson, B., Weller, M. and Whitelock, D. (2019). *Innovating Pedagogy 2019: Open University Innovation*

The relevance in higher education

Several researches highlighted the impact of gamification in several sectors as in education. Castaño Muñoz et al. (2016) assert that 29.2% at Bachelor, Master or doctoral level use serious games. Probably they are using this name as a hole conception including any kind of gamification. Some of these elements could be simply adds as the badges. Christensen et al. (2018) use badges as gamification, helping students, guiding them, supporting continuous learning, visualising the learning path, developing confidence, facilitating self-pacing, and motivating them.

Rückert et al. (2018) used gamification to prevent "the valley of despair phase" (p. 89). They used handcrafted work and simulation, founding a company, designing, and building their own 3D air plane, and competing among them. Stieglitz et al. (2016) reflect the diversity of applications of gamification in many different subject areas, services, organizations, activities and products to engage, increase, orient, or improve experiences. In this sense, Huotari & Hamari (2012) assert that gamification is a process to enhance "a service with affordances for gameful experiences in order to support user's overall value creation".

MOOC pedagogy

The Massive Open Online Courses are very determined by the platform that holds them, especially in xMOOCs, "short on social contact and reliant on video-lecture content and automated assessment" (Bayne & Ross, 2014, p. 24). The methodological design is often oriented to prevent the number of learners, producing a greater emphasis on platforms than teachers and teaching. By the way, the researchers focus frequently the learners' participation and interpret them much more as a problem than a benefit (Bayne & Ross, 2014).

The teachers are frequently seen as a set of automated processes where the teaching role is minimum (Rodriguez, 2012). The scalability is translated not only as a minimum number of teachers, but their minimum role, intervention, and decision. However, Cormier & Siemens (2010) state that teachers' role in MOOCs is still essential amplifying, curating, way finding, aggregating, filtering, modelling, and staying present. In other words, teachers maintain a similar role than in traditional online courses.

In a recent study, Llorens-Largo et al. (2016) assert that "Education is one of the fields where the gamification will become a disruptive innovation, mainly in tech-based learning (eLearning) and long-life learning" (p. 250).

Gamification in MOOCs

From a didactical point of view, the gamification could be understood as a method or as a technique. In the first approach, it would be considered as a whole as would include the course as a game or the course as a means. An example of the game-based approach is the serious games,

Report 7. Milton Keynes:
The Open University.

Finally, some books offer a whole, reflective perspective that could help to frame, and design solid proposal as:

- Kim, P. (2014). *Massive Open Online Courses: The MOOC Revolution*. Abingdon: Routledge.
- Stieglitz, S.; Lattemann, C.; Robra-Bissantz, S.; Zarnekow, R.; & Brockmann, T. (editors) (2016). *Gamification: Using Game Elements in Serious Contexts*. Berlin: Springer.

the simulations, or the PBL (Project Based Learning). The means-based designs are reflected in the platforms and their tools, as in the Moodle tools. By the way, most of learning applications are in this approach design. Both are structural approaches and could be applied in the MOOC design.

In the other hand, the technique is a partial approach. That means that the course design would include elements in activities, or changes in contents. Methodologically, it would offer a gameful approach based on game elements or a playful approach based on ways of acting, of presenting, of proceeding or giving contents. It is relevant to bear in mind that the only presence of elements or procedures do not assure a playfulness experience. The game mechanics have to produce dynamics that have to produce aesthetics.

Finally, a didactical approach highlights the consideration of the equilibrated roles of learners, teachers, and means. The three elements could generate gamification. Learners could have much more opportunities to elect, participate, roleplay, perform, collect, reflect, or create. Teachers could offer competitions, stories, dramatizations, simulations, or options. And means could include alternative media, innovation, case studies, self-making, game tools, or apps.

Conclusion

MOOCs are a nice contribution to open learning and long-life training. As a living phenomenon, it needs to evolve and improve its applications, methodologies and designs. The gamification is a proposal that facilitate engaging, motivating, playful means that could be considered. Neither everything is necessary, nor anything is rejectable. Open your mind and innovate.

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