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# Quality assurance in open online education: open educational resources and massive open online courses”

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UNESCO Institute for Information Technologies in Education

UNESCO/NAA/AKKORK Regional Consultation Meeting for Eastern Europe  
“The role of quality assurance in higher education: challenges, developments and trends”



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# Open Educational Resources

OER refers to any educational resources (including curriculum maps, course materials, textbooks, streaming videos, multimedia applications, podcasts, and any other materials that have been designed for use in teaching and learning) that are openly available for use by educators and students, without an accompanying need to pay royalties or license fees (Butcher, 2011).

OER can exist as smaller, stand-alone resources (reusable learning objects), that can be mixed and combined to form larger pieces of content or as larger course modules or full courses.

OER can also include simulations, labs, collections, journals, and tools. These materials are considered open if they are released under an open license such as a Creative Commons license.

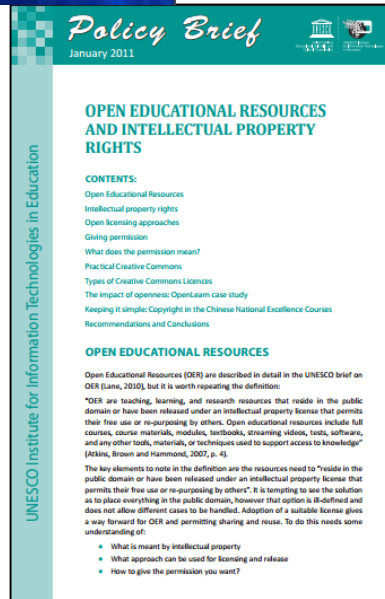


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# UNESCO IITE project on OER in non-English-speaking countries



Armenia	Latvia
Azerbaijan	Lithuania
Belarus	Moldova
Brazil	Mongolia
China	Poland
France	Russia
Germany	Tajikistan
Japan	Turkey
Kazakhstan	Ukraine
Kenya	Uzbekistan
Kyrgyz Republic	Vietnam

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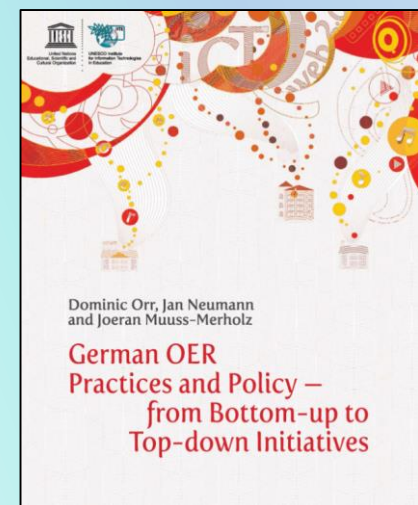
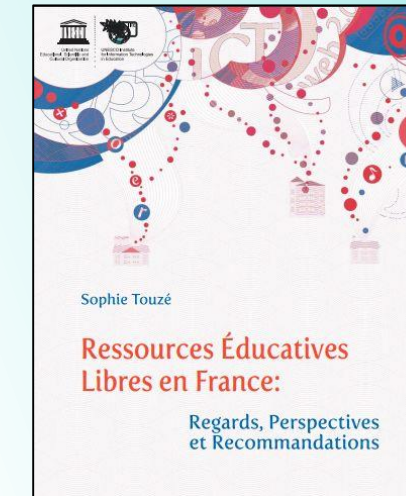
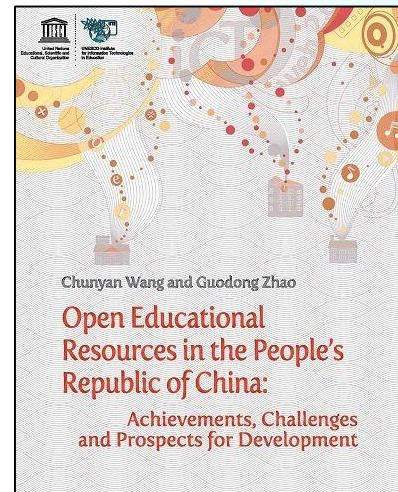
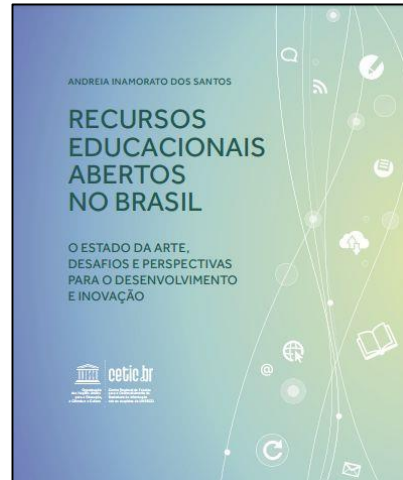
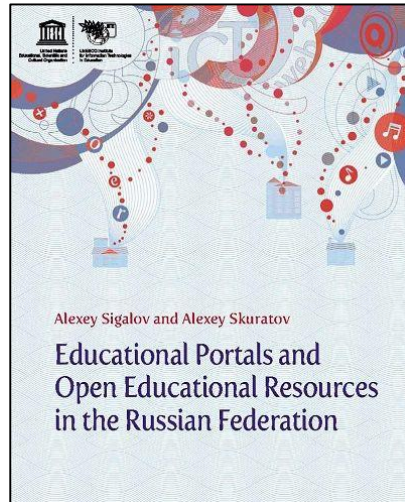
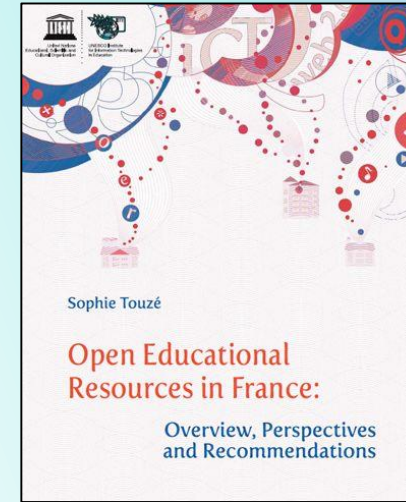
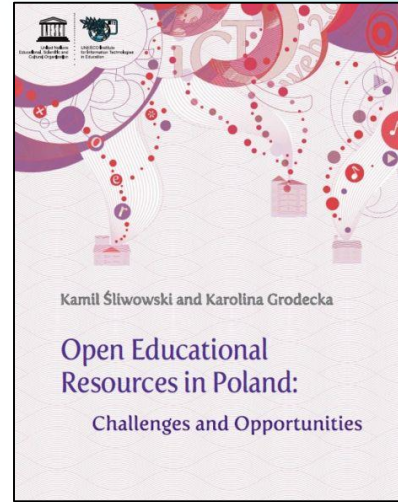
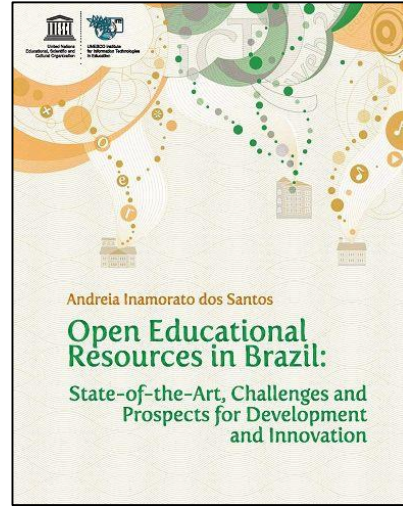
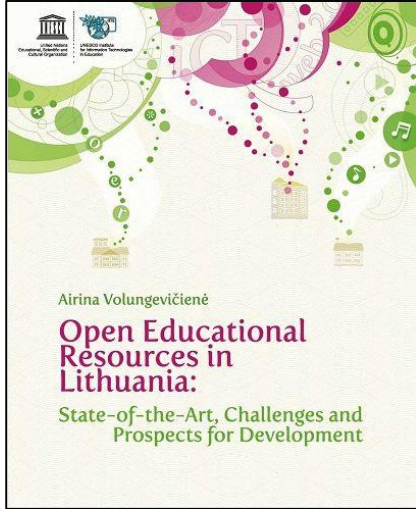


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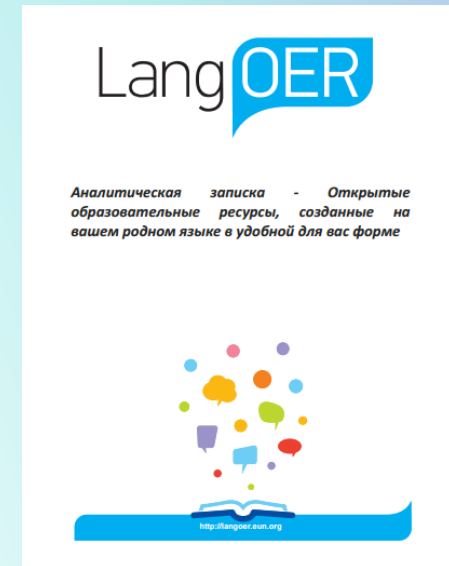
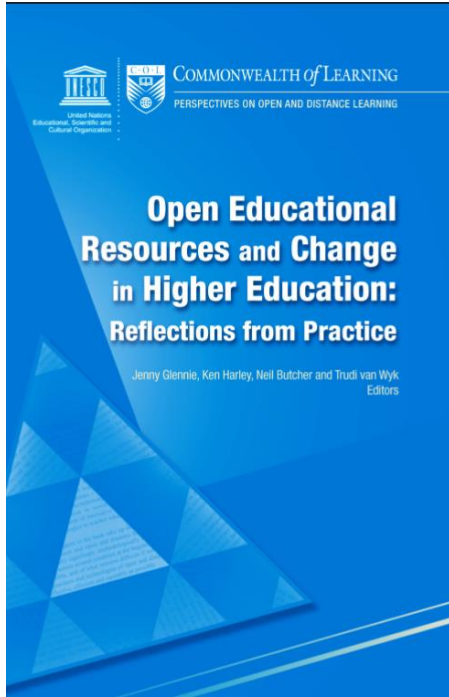


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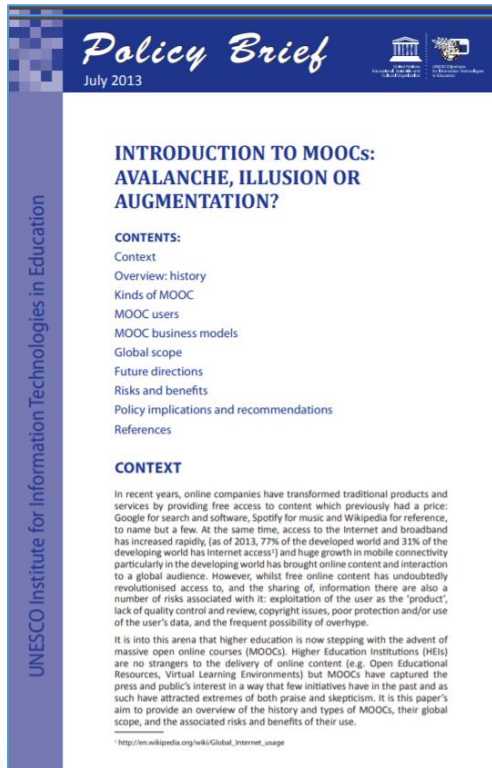


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# Massive Open Online Courses



Massive open online courses – are digital online courses (courseware) accessible at special platforms and including video lectures and podcasts with subtitles, text materials, home assignments, practical exercises, test and final examinations. The authors of the courses are usually professors of leading universities. MOOC are based on active cooperation and interaction between students and teachers and among students. The number of students registered for MOOC can vary from several hundreds to hundreds of thousands. Upon completing online courses students may obtain official certificates. The courses are free or conventionally free.

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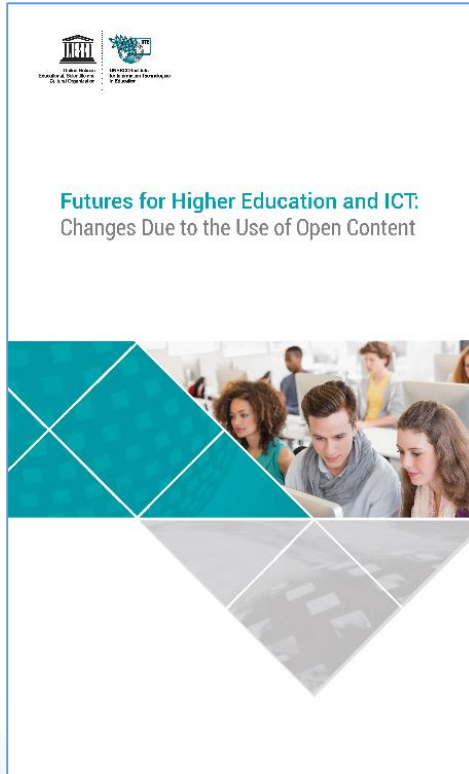


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# “Access, Equity and Quality: Envisioning the Future of Higher Education in a Digital Age”



- A desk study of the literature about future and foresight reports pertinent to the relationship between higher education (HE) and information and communication technologies;
- An analysis of the trends that might have significant impact on the future of higher education;
- A series of high-level expert workshops organized to design the concept of the project, further elaborate the results of the desk study and trend scan and to determine, test and prove critical topics for the survey;
- An online consultation designed for experts in ICT and higher education and high-level decision makers.

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# “Access, Equity and Quality: Envisioning the Future of Higher Education in a Digital Age”

The online consultation launched at UNESCO IITE website was focused on the following topics:

- Future learning contexts for open content
- Future curricula
- The future of validation of learning outcomes
- The future role of teachers and faculty
- The changing role of HE institutions

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# New Forms of Content Presentation and Credentialing

## Unbundling of content

In 2003, the iTunes Store unbundled the CD. For the first time, consumers could purchase the songs they wanted rather than the bundle designated by the artist and label. Sales of digital singles soared but overall revenue fell 50 percent in a decade. Prior to this transformation, the business model for the music industry relied on bundling the music that consumers wanted (singles) with the music that they didn't want. That meant the music industry made money it wouldn't have made without the bundle.

- "Unbundling" content is the future of education: Anant Agarwal, CEO, edX

Bundling has been central to the higher education business model for centuries. Colleges and universities combine content and a wide range of products and services into a single package, for which they charge "tuition and fees."



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# New Forms of Content Presentation and Credentialing

## Digital badges and micro-credentials

The latest trend in HE is micro-credentialing, when students gain skill sets in a specific area and receive a credential. This trend is very promising for life-long learning.

Micro-credentials take the form of a digital certificate, which may be a document or image file, or other official evidence that the necessary work has been completed. In 2015, Udacity announced a new nanodegree (nanodegrees are ‘curriculums designed to help you become job-ready’) — the Android nanodegree in partnership with Google.

[http://bostonbeyond.org/wp-content/uploads/2016/06/Digital\\_Badging\\_Paper\\_NMEF.pdf](http://bostonbeyond.org/wp-content/uploads/2016/06/Digital_Badging_Paper_NMEF.pdf)



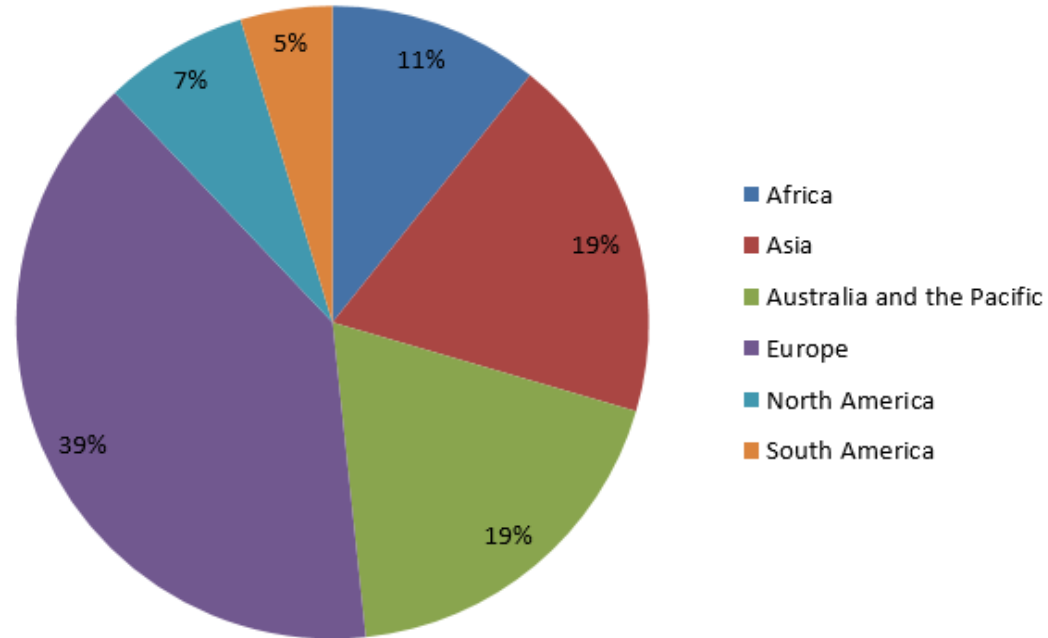
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# “Access, Equity and Quality: Envisioning the Future of Higher Education in a Digital Age”

Online survey: 147 respondents from 54 countries: Europe (39%), Asia and the Pacific (19%), Africa (11%), North America (7%) and Latin America (5%)

**Distribution of respondents across continents**



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# “Access, Equity and Quality: Envisioning the Future of Higher Education in a Digital Age”

## Findings

- The need for curriculum reform is due to such changes as the availability and development of OER
- Varying readiness to acceptance, use and recognition of learning outcomes for OER and MOOCs
- The impact of these developments on the change of the roles of teachers and institutions and the urgent need to (re)train teachers
- The consequences of these developments for the way in which informal/ formal learning results are translated into credits and can be transferred and used
- Price and quality expectations vary for the production of resources and delivery of education services, including those for people with disabilities

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# “Access, Equity and Quality: Envisioning the Future of Higher Education in a Digital Age”

## Findings

There is a consensus about the fact that future mission of higher education should be revised due to the transition from traditional societies to ICT driven knowledge society and knowledge-based society. The role of higher education institutions is to become knowledge centres for the whole society, open lifelong learning institutes. It is expected that the character of higher education will become less elitist and more open. As to the basic functions, it is suggested that there will be a change from content (knowledge) development/provision to content facilitation and skill development, which might include joint production of knowledge with engagement of students. Universities should fulfil their social contract and have to meet the requirements set by the society and by their students, rather than those set by themselves.

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# “Access, Equity and Quality: Envisioning the Future of Higher Education in a Digital Age”

## Findings

As the experts believe that the open content will be an integral part of the teaching and learning processes within the next 15 years, the transfer and recognition, as well as microcredentialing of OER/MOOC-based results should become an important issue.

Other important issues are quality of resources and learning outcomes and assessment. Certification system should be revised and assessment procedures should be harmonized to support a wider use of open content.

The topics related to future curricula in the context of the above changes are also an object of concern for the experts, but their opinions about the necessity, scope and pace of their change vary considerably.

The experts repeatedly emphasized the need to nourish personalised learning and learner-centered approaches with due account to the change in the needs of learners and changing labour market request for skills to prepare students for a new world of work where the jobs they were taught to do may not yet exist after their graduation.

Expectations towards the future delivery and instruction mode are related to blended, project-based and interactive learning, including the use of social networks for educational purposes.

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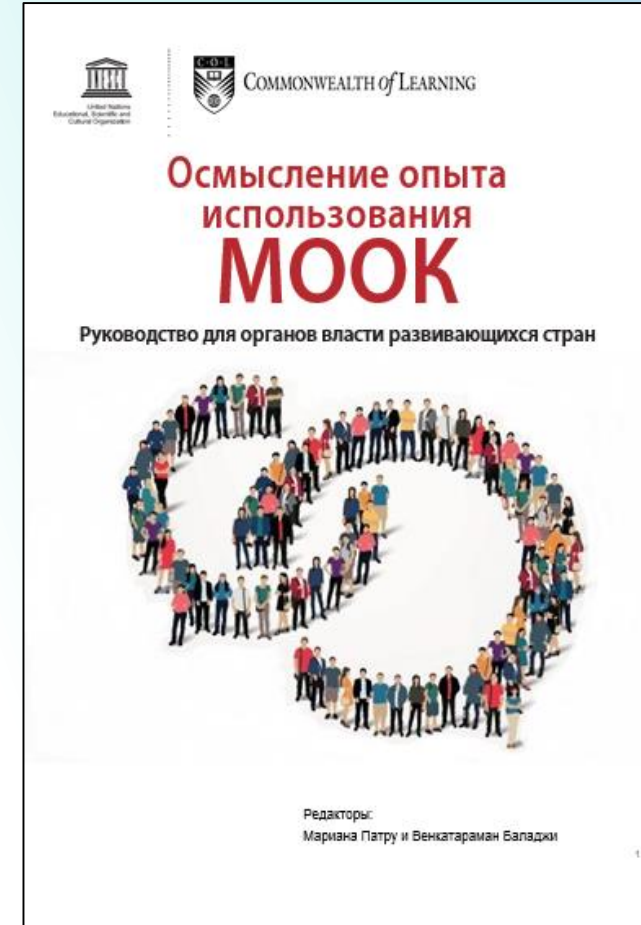
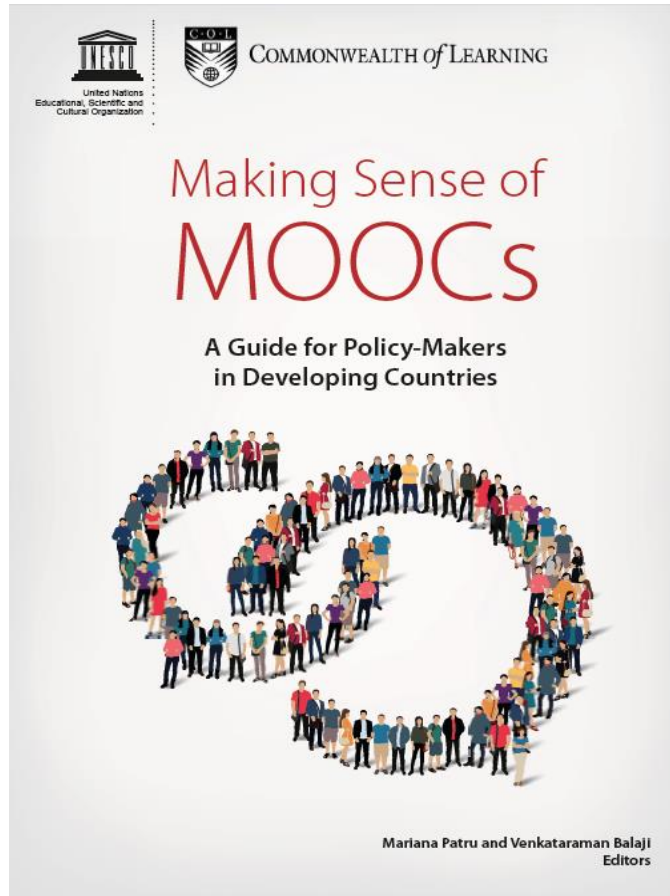


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# Quality of open content and online education



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# Quality of open content and online education

Due to the relative novelty of the MOOC format – while selecting the course students take into account two major criteria: the reputation of the MOOC platform provider and the reputation of the higher education institution based on its performance and ranking.

- The pedagogy of many MOOCs, resembling common lecture hall teaching, is poor. However, increasing attention is being paid to developing more diverse pedagogies and effective learning modes.
- Most MOOCs have a low completion rate. Taking completion rate as a measure for the quality of a MOOC has been criticised; completion rate should be connected to learners' intentions, and not all learners intend to finish a MOOC.
- Some argue that MOOCs have the potential to make high-quality education available for everyone, in reality, access seems mainly limited to a specific category of learners. It was found that 71 % of participants had a bachelor's degree or higher, 31 % were female and 32% were U.S. based; a majority of learners (69 %) originate from developed countries.

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# Quality of open content and online education

QA for MOOCs has two aims:

- To assure that an institution's goals for publishing MOOCs are met.
- To assure that the goals of individual participants in a MOOC are met.

For a MOOC, two views on the concept of quality exist:

- “fitness for use” this formulation assumes a group of users, each with their requirements and expectations of the MOOC and its use(s)
- “conformance to requirements” - this means the requirements of the institution offering the MOOC and of the learners. This perspective assumes the existence of a set of requirements described in such a way that no misunderstanding is possible.

Both views may seem unrelated, but in reality they complement each other.



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# Quality of open content and online education

Because a MOOC is a species in the broader field of online learning and education, criteria to measure the quality of a MOOC can be divided into several categories.

- Criteria for learning in general, not dependent on whether the material is offered offline or online or using a MOOC. For example, each course should include a clear statement of learning outcomes with respect to both knowledge and skills (Ubachs, Williams, Kear, & Rosewell, 2012).
- Criteria specific to online learning. For example, learning materials should be designed with an adequate level of interactivity so that students can engage and test their knowledge, understanding and skills at regular intervals (Ubachs et al., 2012).
- Criteria specific to a MOOC. These concern how specific aspects of learning using a MOOC are addressed:
  - size of the MOOC, which limits student–teacher interactions
  - motivation of participants to engage
  - defined attitudes to learning

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# Quality of open content and online education

The issue of quality continue to play major role for all stakeholders? Decision makers, students and MOOC providers. Successful introduction of online courses, including MOOC, in many senses depend on the development of efficient procedures for quality assurance.

- A quality assurance framework is a critical component for a national MOOC strategy; such a framework does not yet exist for MOOCs, as they are a very recent develop
- Successful quality models exist for online education in some countries and can be carefully adopted for MOOCs.
- It is useful to build quality models for each component of a MOOC, such as identity management, pedagogy, assessment and credentialisation, and to expect conformance from every MOOC provider, including non-institutional players.

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# Quality of open content and online education

## The E-xcellence framework

Developed by the European Association of Distance Teaching Universities (EADTU) and has been described by Ubachs et al. (2012) for benchmarking the quality of online, open and flexible education at programme, faculty and institutional levels.

This framework is comprised of the following areas:

1. Strategic management, with benchmarks such as “having an e-learning strategy that is widely understood and integrated into the overall strategies for institutional development and quality improvement.”
2. Curriculum design, with benchmarks such as “curricula using e-learning components offer personalisation and a flexible path for the learner, whilst ensuring the achievement of learning outcomes” and “learning outcomes are assessed using a balance of formative and summative assessment appropriate to the curriculum design.”
3. Course design, with benchmarks such as “each course includes a clear statement of learning outcomes in respect of both knowledge and skills. There is reasoned coherence between learning outcomes, the strategy for use of e-learning, the scope of the learning materials and the assessment methods used.”
4. Course delivery, with benchmarks such as “e-learning systems provide a choice of online tools which are appropriate for the educational models adopted and for the requirements of students and educators.”
5. Staff support, with benchmarks such as “adequate support and resources (e.g., technical help desk and administrative support) are available to academic staff, including any affiliated tutors/mentors.”
6. Student support, with benchmarks such as “students are provided with clear and up-to-date information about their courses, including learning and assessment methods.”

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# Quality of open content and online education

## The OpenupEd quality label

Area	Example of a benchmark
Strategic management	The institution has a MOOC strategy that relates to its overarching strategies for eLearning, open education and open licensing.
Curriculum design	The institution makes explicit the relationship between its MOOC portfolio and its mainstream curriculum.
Course design	The institution provides templates or guidelines for the layout and presentation of MOOCs to support consistency across the portfolio. These templates have the flexibility to accommodate a range of teaching and learning methods.
Course delivery	The MOOC platform provides a range of online tools that are appropriate for the educational models adopted.
Staff support	The institution provides adequate support and resources to MOOC staff and manages workloads appropriately.
Student support	MOOC students are provided with clear and up-to-date information about courses, including aims/objectives, learning and assessment methods, workload and prerequisite knowledge.

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# Quality of open content and online education

**Оценка качества онлайн-курсов** образовательного ресурса «одного окна», создаваемого в рамках приоритетного проекта «Современная цифровая образовательная среда в РФ»

Модель многоступенчатой оценки качества содержания онлайн-курсов. Они должны соответствовать как техническим требованиям ресурса и законодательству страны, так и отвечать определенным стандартам в части контента. В первую очередь, речь идет о качестве и актуальности информации, а также эффективности образовательного процесса.

На первом этапе проводится экспертиза платформ онлайн-обучения – через ресурс «одного окна» будут доступны онлайн-курсы, размещенные лишь на тех платформах, которые соответствуют обязательным техническим требованиям. Это важно для обеспечения комфорта пользователей и стабильности работы ресурса.

Оценку онлайн-курсов можно разделить на три независимых «потока»: обязательную оценку онлайн-курса, добровольную содержательную оценку и непрерывную оценку со стороны пользователей.

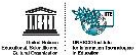
Результаты всех проверок заносятся в паспорт онлайн-курса. Помимо описания онлайн-курса там же отражается его рейтинг, количество слушателей, отметки о прохождении экспертиз, а также отзывы слушателей и работодателей.

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**Futures for Higher Education and ICT:**  
Changes Due to the Use of Open Content



# THANK YOU!

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