Biz MOOC

MOOC s
,, for the world
of business

BizMOOC Result 2.1: Guidelines for business, HEIs, learners

(3) Guidelines for Learners (Society)

BizMOOC Result 2.1: Guidelines for business, HEIs, learners

(3) Guidelines for Learners (Society)

Martin Weller/Sarah Bridgman

Open University

Christian Friedl

FH JOANNEUM

Beth Button

ESIB

Table of Contents

Guidelines for MOOCs – Learners/Society

1. Introduction

This document provides a number of questions and answers relating to how MOOCs address society in general, including learners on MOOCs. It is aimed at three broad categories of users: those new to MOOCs, those who have some experience of studying MOOCs, and those interested in making their own MOOCs. As such, not all questions are relevant to all readers. The questions are grouped under three main categories:

- [MOOCs in general](#)
    - What are MOOCs?
    - What is the difference with other online courses and open education?
    - What is the right type of MOOC and teaching approach for me?
    - Are MOOCs generally free?
    - Why are MOOCs valuable for society?
    - Why should society care about MOOCs?
    - What are the benefits for MOOC participants?
    - Where do MOOCs students come from?
    - Who is the typical MOOC student?
    - Are employers aware of MOOCs?

- [Learning on a MOOC](#)
    - Why should I study a MOOC?
    - Do I need any qualifications to study a MOOC?
    - Where can I find MOOCs for certain topics?
    - How long does MOOC study take?
    - Do I get a tutor on a MOOC?
    - How do I measure the quality of the MOOC on offer?
    - How is cheating prevented in MOOCs?
    - Do I get credit or certification for undertaking a MOOC? And what options exist?
    - Do universities recognise learning done through MOOCs?
    - Is there any formal accreditation seal for MOOCs?

- [Taking MOOCs further](#)
    - What are the next steps after studying MOOCs?
    - How can MOOCs improve my skills?
    - Can MOOCs help me get a (better) job?
    - How can I design my own learning pathway through a MOOC?
    - Can I produce my own MOOC?
    - How can I create my own personalised curriculum consisting of MOOCs from different platforms?
    - Is there a MOOC Student Union?

There are also two further sets of guidelines, which may be of interest: [MOOCs for businesses](#), [MOOCs for Higher Education Institutions](#)

2. Guiding Questions & Answers

1. MOOCs in general	
What are MOOCs?	MOOC stands for **M**assive **O**pen **O**nline **C**ourses. There does not exist an unambiguous, straightforward and broadly accepted definition of a MOOC, but a European collaborative has developed the following clear operational definition: *"An online course designed for large number of participants that can be accessed by anyone anywhere, as long as they have an internet connection, is open to everyone without entry qualifications and offers a full/complete course experience online for free*" (Brouns et al., 2014). This chapter of the MOOC BOOK describes the basic views of what is a MOOC, discusses the commonalities between many definitions and demonstrates the strong connections to both open and online education.
What is the difference with other online courses and open education?	In relation to the MOOC definition it is essential to understand the differences with other educational provision. For example, MOOCs differ from 'regular' online courses in at least three aspects: • MOOCs are designed for, in theory, an unlimited number of participants and as such are related to the scalability of education services; • MOOCs are for some part open, at least are accessible for free without entry qualifications; • All elements of course provision are provided fully online. Further information on different kinds and characteristics of online or blended courses is provided in the following MOOC BOOK chapter, part "How does a MOOC differ from an online course?" However, with different variations in MOOCs (see next question), some of these elements themselves can be altered, so the difference with 'traditional' online courses can become blurred.
What is the right type of MOOC and teaching approach for me?	In general, distinctions are made between 'cMOOC' ('c' for connectivity) and 'xMOOC' ('x' for multiplication), i.e. whether they are designed for an interactive exchange between students and lecturers or primarily for distribution/multiplication of content. The following distinction is overly simplistic (as there are often collaborative elements in xMOOCs, and also cMOOCs can be quite structured), but provides an overview to the learning setting to expect in each type: ● cMOOCs are based on connectivist theories and place an emphasis on connecting learners rather than presenting content. They focus on the network and the learners are often involved in construction of the curriculum. Therefore, this type of course provides you with more freedom in designing your own learning pathway, to

	connect with other learners, but it is less structured and designed.
	● xMOOCs are modelled on traditional course materials, theories and teaching methods (e.g. lectures), providing in most cases high quality (video) content and automated testing or quizzes, and are linear and instructor-guided. In addition, as the MOOC movement advances, new alternatives in the form of online or blended courses have evolved such as hMOOC (Hybrid-MOOC), SPOC (Self Private Online Course), DOCC (Distributed Open Collaborative Course) etc. This chapter of the MOOC BOOK examines the pedagogy associated with MOOCs and explores how the historical development of MOOCs led to two main schools of thought regarding pedagogy.
Are MOOCs generally free?	Per definition, MOOCs should be basically free. However, there are monetary costs associated with them and MOOC providers are constantly searching for business models. In this respect, more and more revenue streams are introduced. Examples are: Free participation, but fee-based certification, tutoring, individual coaching, tailoring courses to specific target groups, providing follow-up resources or other services. The "business models" chapter of the MOOC BOOK provides you with a (totally-free-of-cost) overview of the monetary costs as well as direct and indirect revenues of MOOCs and their associated services, and further readings for related issues. The "certification" chapter outlines different paid-for models of certification in MOOCs.
Why are MOOCs valuable for society?	MOOCs in essence have some unique characteristics that make them valuable for society. ● MOOCs are designed for massive participation — MOOCs are gradually regarded as a way to address the growing number of individuals seeking to gain higher education (HE). MOOCs can also be delivered to increase participation in lifelong learning and training for very large numbers of people. ● MOOCs provide a full course experience for free, increasing access to education for all kinds of (non-formal and formal) learners (as courses offered free of charge to people all over the world, thus giving them the opportunity to decide for themselves what, where and when to study) ● MOOCs may be regarded as contributing to the democratization of HE, not only locally or regionally, but globally as well. Only an Internet connection is required to have access to quality education. Moreover, access to quality education offers citizens a better standard of life and the ability to engage more productively in all areas of human endeavour. MOOCs thus can offer universal entry to high-quality education at no cost to the participants. One could position MOOCs as just another milestone in the process of transforming HE into a more open,

	accessible, flexible, affordable, transparent and accountable entity. However, the early research in MOOCs suggests that they tend to be taken by people who are already well qualified (see question 'Who is the typical MOOC student?'), with a degree or higher. Thus the democratization argument has been countered by those who suggest that MOOCs may even exacerbate the digital divide.
Why should society care about MOOCs?	The following reasons for societies to invest in MOOCs are frequently mentioned: • To promote the development of a cutting-edge education. • To stimulate and motivate the adoption of new technologies and new forms of learning. • To offer expansive, open, free, accessible and always available knowledge (continuing education) within relevant educational fields. • To combine online and campus education. • To expand access, marketing and branding, as well as the potential for developing new revenue streams. • To reap the benefits presented by collaboration in virtual learning environments, including learning peer-to-peer, increasing digital skills, amplifying networks and recycling knowledge. • To use MOOCs as an admissions tool. • To increase enrolments and applications from students who want to 'try before they buy' when considering university. • To these we can add more recent findings on government perspectives, which highlight the general awareness of the potential of using MOOCs for workforce development, but which also point out a lack of national strategies to promote MOOCs as a means to mitigate unemployment or for professional development (Garrido et al., 2016).
What are the benefits for MOOC participants?	MOOCs have opened up new possibilities and new ways for learners to access education anytime, anywhere, with lower costs, allowing them to earn whilst learning. From the students' point of view, MOOCs not only provide access to quality educational materials over the Internet but also help them learn flexibly. Moreover, they can compare materials and educational systems through MOOCs. Besides the learning itself, MOOCs provide the opportunity to connect with people who share the same interests or professional profiles. As a result, citizens in general are able to reach out to new groups and generate new ideas, to initiate novel projects or other interpersonal engagements, for a wide variety of purposes. However, the absence of academic support for learners means that they must be prepared to learn on their own, or with peers. This can often be difficult for inexperienced learners.
Where do MOOCs students come from?	Geographically, the MOOC stage is global, so it is very likely that the learning community will be international and provide an intercultural experience. When reducing this characteristic to quantitative aspects, the numbers show a global

	distribution with a shift towards developing countries in recent years: for example, only 43 % of Coursera participants already derived from North America in 2013 (UNESCO, 2013, pp. 5-6). The remaining 57 % were distributed around the world and derived from Asia (26 %), Europe (17 %), South America (10 %), Australia (2 %) and Africa (2 %). According to the MOOC provider 'edX', over 40% of their learners live in emerging economy countries (Inside Higher Ed, 2016). In 2016 China's XuetangX, the first non-English MOOC platform entered into the Top 3 MOOC providers by registered users according to Class Central report (2017). In 2018, Miríada X offered 690 courses in Spanish and Portuguese to over 4 million users. More generally, the Online Course Report (2016) published numbers of 35 million learners at 570 universities and 12 providers in 2015. This has increased to 9400 courses by over 800 universities to 81 million students (Class Central, 2017) by 2017. Also, the learners who participated in our BizMOOC survey derived from 62 countries from all around the world. While MOOCs seem to offer the potential to make high-quality education available for everyone, in reality, access seems mainly limited to a specific category of learners. IPTS (2016) confirmed that also MOOC learners in Europe are individuals from privileged socioeconomic backgrounds. In addition to the intercultural dimension, MOOCs could provide a good opportunity to build a connection to peers (online and face-to-face; e.g. by identifying similar interests), so MOOCs can also enrich the social dimension of your learning experience. Some experiments show success of MOOC provision in addressing the people in need for education by re-engineering the generic MOOC model to allow for a broad spectrum of approaches and contexts, accounting for diverse languages, cultures, settings, pedagogies and technologies.
Who is the typical MOOC student?	According to Sharples et al. (2013, p. 10), the MOOC approach is designed for those that can cope with the digital and educational challenge, but it is not for those without the necessary digital skills (who would need additional support). Although MOOCs claim that anyone is welcome, the majority of MOOC students hold at least an undergraduate degree (UNESCO, 2013, pp. 4-6; Educause, 2013). They are therefore assumed to be better equipped with adequate internet access as well as the necessary IT, learning and language skills. These numbers are also validated to some extent by the study carried out in the course of the BizMOOC project, where more than 70% of the respondents have at least an undergraduate degree and more than 84% declared that they use the web (incl. MOOCs) often or always to develop their skills and/or to learn something new. The Online Course Report (2016) adds that most learners hold at least one or more degrees and fall mostly in the age range of 25-40. The preferred course language is English, although the share of English MOOCs slightly declines. In one of the largest surveys of MOOCs to date, Chuang and Ho (2016) analysed 290 HarvardX and MITx courses offered on edX from Fall 2012 to Summer 2016 and identified the following learner characteristics:

	73% of the participants already had a bachelor's degree or higher. 45% were under 30 years of age. 29% were based in the United States. 33% were female.
Are employers aware of MOOCs?	Partially - but the awareness level is increasing. The study in the course of the BizMOOC project revealed that only half of the interviewed employers were familiar with MOOCs. However, many potential benefits of MOOCs are recognized by the majority: besides free training, improving knowledge and skills with less investment, boosting employee productivity and profits, improving employee retention rates, supporting team spirit and promoting intercultural competences are emphasized. Interestingly, employers are stipulating the loss of relevance of diplomas and certificates, and that MOOCs could contribute to the increase of knowledge rather than the accumulation of certificates. On the other hand, for some employers it would be important that the different types of certificates offered by MOOCs (e.g. badges or similar) are formally recognised. MOOC completion is currently not one of the overriding criteria when choosing a new employee, at least for the moment.
2. Learning on a MOOC	
Why should I study a MOOC?	A MOOC - a massive open online course - is an accessible, free and easy way to further your knowledge and understanding of a particular area, gain new skills in a specialism, and learn in a diverse and innovative educational environment alongside other learners. As MOOCs are freely available they attract large numbers of learners. In this respect, a MOOC fosters people to connect and learners can easily broaden their networks. People study MOOC's for many reasons - some use them to complement an existing study programme, others use them to facilitate progression into higher education, and others use them as part of professional development in the workplace. MOOCs are incredibly diverse and versatile, and whatever your need, or circumstances, there's likely to be an option that works for you. Before undertaking a MOOC, it is worth considering the following factors, to make sure you find the MOOC that's right for you: Type of thematic content: learners should specify their needs regarding the course; whether acquiring start-up skills, general entrepreneurial skills or firm-level entrepreneurial practices, look for a course that will provide the best fit. There is a wide choice of courses on various MOOC platforms, which suggests that learners need to be persistent in their search..

	• Provider: it is advisable to consider a high-ranked university, well-renowned professor, experienced private educational provider when choosing the course. • Language: the widest choice of courses is available in English, followed by Spanish. • Length of course and workload necessary in order to complete the course. • Possibility to gain certification. • Costs: completely free of charge, partially free of charge, or cost-dependent on the learner's preferences. • Possibility of submitting user feedback to the course. • Option to only choose certain modules / content. • Moderated or not. • Possibility to work and interact with other learners. • xMOOC/cMOOC, Hybrid MOOC, SPOC, or other type. • Mode of assessment. Etc.
Do I need any qualifications to study a MOOC?	In principle, you don't need any entry qualifications to undertake a MOOC - they are designed to be open and accessible to all learners, without the requirement of any pre-existing qualifications. However, some MOOCs may require a level of prior knowledge on the topic, or a level of understanding of the language of instruction.
Where can I find MOOCs for certain topics?	MOOCS are mostly provided by higher education institutions, or spin-off companies by these institutions or their staff. Some are also offered directly by large organisations such as the World Bank. You can usually find information about the MOOCs on offer on each provider site. You can also use the MOOC platform as starting point for your search (Coursera, Udacity, edX, Canvas Network, Kadenze, NovoEd, etc.). There are some online sources that facilitate a search for MOOCs across platforms. Examples are: • MOOC List is an online directory of MOOCs providing information on the courses offered by universities and other providers around the world. Users can search for MOOCs by multiple criteria, such as the topic or theme, the university or provider, the length of the course, etc. • Class central is another online platform that collates information about available online courses. • OpenUpEd is a list of MOOCs from European providers that meet certain quality guidelines.
How long does MOOC study take?	That depends on the individual MOOC - each MOOC will have a specific length of study, depending on the nature of the course. MOOCs will normally last between 3-12 weeks, but a trend towards shorter MOOCs has been observed.

	Even MiniMOOCs are in existence. Ideally, the MOOC description provides an estimated workload for the full course completion or an estimated workload per week.
	Learners normally spend between 5-10 hours a week in a MOOC. Note that an increasingly number of self-paced MOOCs are being offered, giving the flexibility to choose the start and end date of the course.
Do I get a tutor on a MOOC?	MOOCs are designed to accommodate a large number of participants, and so typically you don't have a (personal) tutor in the same way that you would in a traditional course. Due to the fact that there is usually very little direct interaction between instructors and learners, MOOCs are specially designed to support distance learners through an online platform, with carefully planned content and interactivity, and a role for peer and community learning and forums.
	In the last few years there has been a change to include more support for learning within a MOOC. However, this will often come with a cost for the learner (and of course for the provider too).
How do I measure the quality of the MOOC on offer?	Before undertaking a MOOC, you may wish to assess and review the quality of the MOOC on offer, in order to ensure that the MOOC is of a high quality, and that it meets your learning needs. There are a number of ways you can identify and assess the quality of a MOOC: • Look for a clear description of the course - including the breakdown of the modules available, its intended learning goals and outcomes. • Examine the materials available on the course - ensure videos are of high quality, and that there are e-books and other high quality materials available to download as part of the course. • Who is the provider of the MOOC? Does it come from a reputable university or other provider? • Is the MOOC on one of the recognised platforms? It doesn't have to be, as many universities have developed MOOCs on their own platform, but if it is on a platform such as Coursera or FutureLearn, for instance, that will indicate it has been through their agreed production process. • Are there opportunities to work in groups and with other participants - to share ideas and experience, through the use of online communication tools? Can you interact with an instructor? • Will you receive continuous feedback and tracking of progression? • Does the MOOC offer a certificate or statement of participation? • Check to see if the MOOC has been based on the regular courses of a formal programme. • Look for some sort of quality label or evidence of a quality assurance process.

How is cheating prevented in MOOCs?	As with every type of online course, cheating is an issue. In this respect, there are different existing approaches and opinions. Some facilitators argue that you cannot monitor or verify taken-home exams and assignments in larger face-to-face course settings either, as you do not have the opportunity to individually verify the knowledge levels of all learners, e.g. validating a written exam by back-checking it orally. Other approaches to safeguard verification in MOOCs are applied by the major, resource-intensive North American MOOC platforms which ask for live webcams combined with government-issued IDs of learners for taking exams. The platform 'Coursera' even offers to track keyboard biometrics of their learners in order to receive a verified certificate (ICEF, 2013). That means unique keyboard type patterns and typing rhythms are recorded for each learner and compared when taking an exam or elaborating an assignment. Further readings on this topic are offered by the MOOC BOOK chapters on • Quality • Certification • and IPR
Do I get credit or certification for undertaking a MOOC? And what options exist?	Recognition usually refers to learning outcomes, such as knowledge, skills and competence, being visible and valued against clearly defined and quality assured standards (Yang 2016). Many MOOC providers offer certificates, badges or other forms of recognition on completion of a course. Normally, they require a fee to be paid for such certification depending on the type and length of the course. As of July 2018, for example, an upgrade on a FutureLearn course giving you unlimited access to the course materials, a test to validate your learning and a Certificate of Achievement will cost €64. There are 3 types of recognition that are typical within MOOCS: ▪ The majority of MOOCs are offering **digital badges** for completion of either the entire course, of each unit or of a week of work (e.g. The Digital Scholar by The Open University). ▪ Other MOOCs, as the ones facilitated by Coursera, offer proctored exams for a fee, which will involve the earning of a **certificate**, together with a higher education institution (HEI), for successful students. ▪ Some other MOOCs provide a **Statement of Accomplishment** for successful students, but in this case no college credits are associated to this type of certificate More information about the opportunities for certification of MOOCs can be found in this paper.
Do universities recognise learning done through MOOCs?	Not all universities will recognise MOOCs as formal qualifications, but they may be recognised as prior learning - this will depend on the university. Many European MOOC providers are however beginning to offer formal recognition for MOOCs, through ECTS credit as part of bachelor and masters

	degrees, or linked to specific degree programmes. For example, FutureLearn has linked programs of MOOCs to particular degree programmes in universities, allowing students to transfer this credit into their study. Delft University offers credits for MOOCs for existing students, allowing them to expand their curriculum. Furthermore, many MOOCs are recognised as part of shorter programmes; for example, Udacity promises a job based on their nanodegrees (so recognised by employers) and edX partners state that micromasters are recognized in their formal (bachelor and master) degrees. As we see, collaborations between MOOC providers and universities are increasing. In Europe this process seems to be taking longer to implement, but the EU-wide ECTS system provides a promising basis. For more information, see the chapter on recognition within the MOOC book.
Is there any formal accreditation seal for MOOCs?	As stated above, some of the courses that are organised by MOOC providers, or offered by MOOC platforms or partnerships lead to either a certificate of completion, a badge or credit course. Some of these are beginning to be formally accredited, but that might not follow any general rules regarding certification of educational courses. Even though the courses themselves are free of charge – obtaining any kind of evidence that one has been enrolled or completed such course is often issued upon a fee. Those certificates are designed by the MOOC provider and are usually not formally recognised by any other institution.

3. Taking MOOCs further

What are the next steps after studying MOOCs?	There are many reasons why learners enrol on MOOCs. Research shows that they address the growing number of individuals seeking access to Higher Education. However, not all MOOC participants will wish to progress onto a university degree programme. Some learners use MOOCs to complement an existing programme of study; some use MOOCs to improve their current job performance or equip themselves with the skills and knowledge for a new job; and some wish to make new connections and form networks. For those learners who wish to enter formal Higher Education, initiatives such as FutureLearn Programs enable its learners to earn credit towards specific degrees from universities (see the question 'Do universities recognise learning done through MOOCs?'). Learners have different goals when enrolling on and completing MOOCs, so the next steps will vary accordingly.
How can MOOCs improve my skills?	Generally, MOOCs are designed around one central topic. This enables learners to choose MOOCs that are specific to their development needs or interests. For example, if you wish to develop interview skills or project management skills.

	Many MOOC providers offer certificates, badges or other forms of recognition on completion of a course. These can be used to evidence the learning that has taken place; for example, with an employer. In addition MOOCs develop learning skills, particularly without support, and technical skills.
Can MOOCs help me get a (better) job?	Potentially. The contrast of [rising unemployment and large-scale job vacancies](#) suggests a deficit in the right skills for the job. MOOCs provide flexible, innovative learning approaches, based on the skills required by today's and tomorrow's labour force, [for improving the quality and relevance of Higher Education](#). [Research](#) shows that learners perceive MOOCs to benefit them in terms of improved job performance, personal improvement, and the development of skills for a potential new job.
How can I design my own learning pathway through a MOOC?	Early MOOCs, such as those now defined as cMOOCs or connectivist MOOCs, [emphasised connecting learners](#) rather than presenting content. These MOOCs combined open, institutional and homemade technologies in order to create networks, enabling learners to forge their own pathway. Later MOOCs, also known as xMOOCs, are modelled on more traditional course materials and follow a linear, instructor-led pattern. They are also of a high quality, but can offer limited opportunity for learners to design their own pathway through the content. While the selling point of MOOCs has been the ability to learn socially with a (massive) cohort of other learners, there are now MOOCs that enable learners to study at their own pace.
Can I produce my own MOOC?	Yes. There are several MOOCs available that guide you in understanding how to build a MOOC, such as the [AtLETyc MOOC Camp](#), or MOOCs tailored for production for specific platforms, such as edX's [Overview of Creating an edX course](#). At the time of writing, there is [no universal business model for developing MOOCs](#) due to the variations in providers, platforms and other stakeholders. However, [this](#) chapter of the MOOC Book proposes a model that illustrates the involvement of various stakeholders in the development phases of a MOOC, along with their associated costs and revenues. The general costs associated with producing a MOOC include staff costs, the length of the MOOC, post-production services, existing knowledge and experience of the team, etc.
How can I create my own personalised curriculum consisting of	MOOCs run for a specific length of time, e.g. 3 weeks or 6 weeks. This enables learners to enrol on MOOCs whenever suits them. They can also enrol on MOOCs on any platform; however, any information/data pertaining to a particular MOOC will reside within the platform on which it is hosted, and

MOOCs from different platforms?	cannot be aggregated across different platforms. Some MOOC providers, such as FutureLearn, now offer Programs of different MOOC courses. Completion of each course within a Program as well as an additional assessment can be transferred into credit points at the partner institution.
Is there a MOOC Student Union?	At the time of writing, there is no Student Union specifically aimed at supporting MOOC learners.

References

Brouns, Francis, Mota José, Morgado Lina, Jansen Darco, Fano Santiago, Silva Alejandro & Teixeira António (2014). A networked learning framework for effective MOOC design: The ECO Project approach. In António Moreira Teixeira & András Szücs, 8th EDEN Research Workshop. Challenges for Research into Open & Distance Learning: Doing Things Better: Doing Better Things (161-171). Budapest: EDEN.

Class Central Report (2017). By The Numbers: MOOCS in 2016. How has the MOOC space grown this year? Get the facts, figures, and pie charts. Retrieved from https://www.class-central.com/report/mooc-stats-2016/

Garrido, M., Koepke, L., Andersen, S., Mena, A., Macapagal, M., Dalvit, L. (2016). An examination of MOOC usage for professional workforce development outcomes in Colombia, the Philippines, & South Africa. Seattle: Technology & Social Change Group, University of Washington Information School.

Chuang, Isaac and Ho, Andrew, HarvardX and MITx: Four Years of Open Online Courses -- Fall 2012-Summer 2016 (December 23, 2016). Available at SSRN: https://ssrn.com/abstract=2889436 or http://dx.doi.org/10.2139/ssrn.2889436

IPTS (2016). MOOCs in Europe: Evidence from pilot surveys with universities and MOOC learners. Retrieved from https://ec.europa.eu/jrc/sites/jrcsh/files/JRC%20brief%20MOOCs_JRC101956.pdf

Inside Higher Ed: The Scope of edX. Retrieved 9 July 2018 from https://www.insidehighered.com/blogs/technology-and-learning/scope-edx.

Online Course Report (2016): State of the MOOC 2016: A Year of Massive Landscape Change For Massive Open Online Courses; retrieved 29 November 2016 from https://www.onlinecoursereport.com/state-of-the-mooc-2016-a-year-of-massive-landscape-change-for-massive-open-online-courses/

Sharples, M., McAndrew, P., Weller, M., Ferguson, R., Fitzgerald, E., Hirst, T., and Gaved, M. (2013). Innovating Pedagogy 2013: Open University Innovation Report 2.Milton Keynes: The Open University.

UNESCO: Barnaby, G. (2013): Introduction to MOOCs: Avalanche, Illusion or Augmentation?, ISSN 2221-8378, Moscow: UNESCO Institute for Information Technologies in Education, Available at http://unesdoc.unesco.org/images/0022/002238/223896e.pdf