



SCORE2020

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*MOOC Quality and it's use
by different target groups*

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it's use by different target groups.



SCORE2020

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Europe's leading institutional association in online, open and flexible higher education



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Introduction

The hype surrounding MOOCs has been tempered by scepticism about the quality of MOOCs. The possible flaws of MOOCs include the quality of the pedagogies employed, low completion rates, and a failure to deliver on the promise of inclusive and equitable quality education for all. On the other hand, MOOCs have given a boost to open and online education, have become a symbol of a larger modernisation agenda for universities, and are perceived as tools for universities to improve the quality of blended and online education, both in degree education and Continuous Professional Development. MOOC provision is also much more open to external scrutiny as part of a stronger globalising higher education market. This has important consequences for quality frameworks and quality processes that go beyond the individual MOOC.

Goal number four of the UNESCO Sustainable Development Goals states: “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (UNESCO, 2015a). In addition the *Education 2030 Declaration* (UNESCO 2015b, point 43, page 16) states “The provision of tertiary education should be made progressively free, in line with existing international agreements.” MOOCs are generally seen as contributing to these goals as they provide complete learning experiences without any costs for the participants. However, this does not necessarily mean that MOOCs ensure quality education for all.

In exploring this issue, we start with the question: what is a MOOC? Bates (2015) considers MOOCs to share a combination of the four key characteristics related to the acronym Massive Open Online Course. A collaboration of EU-funded MOOC projects extended this to the following definition¹: “an online course designed for a 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”. This definition was recently validated amongst European institutions (Jansen, Schuwer, Teixeira & Aydin, 2015).

This definition positions MOOCs as part of both online and open education. But what openness means has been the subject of some debate (Open Education Handbook, 2014); openness must not be associated only with “free”. In general, open education has the primary goal of removing barriers to education (Bates, 2015). Mulder & Jansen (2015) examine whether MOOCs can be instrumental in opening up education. Their main conclusion is that MOOCs cannot remove all barriers to learning, and hence can only contribute, to a certain extent, to ensuring quality education for all. The main flaw is that quality assurance and accreditation schemes are not yet equipped for MOOCs.

This raises the question of the relation between MOOCs and formal education. Ehlers, Ossiannilsson & Creelman (2013) posed a question at the start of the EFQUEL MOOC project (<http://mooc.efquel.org>): ‘Can the quality of MOOCs be assessed in the same way as any defined university course with traditional degree awarding processes?’. Are MOOCs essentially forms of non-formal education, with related flexible provision? Or are MOOCs a pathway to higher education, helping to ensure inclusive and equitable quality education for all? The latter option implies the need for similar quality assurance processes as in formal education.

¹ http://www.openuped.eu/images/docs/Definition_Massive_Open_Online_Courses.pdf

This output reviews current and emerging practice for the quality assurance and quality enhancement of MOOCs and other open, online courses. This output will discuss different views on quality process and provide different quality frameworks and practices used. Central question is *How to stimulate quality perspective by developers for different target groups*. In this context it is important to show practices how to stimulate and ensure high quality and offering public insight into the quality provided. Aspects related to quality culture (stimulus by visibility, peer sharing, learner feedback, learning analytics), QA including accreditation (main challenge, part of it could be by connection to certificate services), quality checklists used,, etc. It has strong relation to output 5 of SCORE2020 project ensuring the use of best practices in the instructional design models.

This output stresses the importance of the use of international quality frameworks for MOOCs, embedded in institutional quality processes. In addressing the issue of how best to assure quality in MOOCs, the question of why quality matters for MOOCs is first tackled. Quality frameworks and processes are then discussed, and illustrated with two case studies. In this context the OpenupEd Quality Label for MOOCs is considered. As such quality approaches are discussed, including possible measures at different levels and the tension between product and process models. Two case studies are described, one at the institutional level (The Open University) and one at a MOOC platform level (FutureLearn), and how they intertwine is discussed. The importance of a national or international quality framework which carries with it a certification or label is illustrated with the OpenupEd Quality label. Both the label itself and its practical use are described in detail. The examples will illustrate that MOOCs require quality assurance processes tailored to e-learning and open education, embedded in institutional frameworks. The increasing unbundling of educational services may require additional quality processes.

Note that part of this SCORE2020 work is published as a separate article

- Jansen, D. , Rosewell, J. & Kear, K. (2016). Quality Frameworks for MOOCs. In Open Education: from OERs to MOOCs. Lecture Notes in Educational Technology. Springer.

Checklists developed in the SCORE2020 project are now operational as part of the OpenupEd initiative. Some elements of the checklists were developed in collaboration with the ECO project, others are in operation by SCORE2020 partners and reviewed as part of SCORE2020.

Why does quality of MOOC matter?

Starting from the perspective of MOOC participants, we can argue that learners are entitled to a high quality learning experience, whether they are enrolled on a fee-paying, credit-bearing course or a MOOC. On this basis, it is valuable to consider whether the quality of MOOCs should be assessed in the same way as a university course with degree awarding processes, a question posed by Ehlers, Ossiannilsson and Creelman (2013).

Quality Pedagogy and Dropout Rates

MOOC have the promise to widen access to higher education to millions of people, including in the developing world, and ultimately enhance the quality of life for millions (Daniel, 2012). However, MOOCs generally attract only well-educated learners who already have higher education qualifications, and are already in employment (Macleod, Haywood, Woodgate & Alkhatnai, 2015). MOOC provision is dominated by a handful of platforms supported by elite universities, and very few MOOCs offer formal pathways to recognised academic qualifications. This poses a potential threat of inequality of access (Schuwer, Gil-Jaurena, Hakan Aydin, Costello, Dalsgaard, Brown, Jansen & Teixeira, 2015).

There is widespread scepticism of the quality of MOOCs and the pedagogies employed, for example those of xMOOCs (Gaisch & Jadin, 2014). Evidence supporting this sceptical view can be found in a study by Margaryan, Bianco, & Littlejohn (2015), which evaluated a sample of 76 MOOCs using a checklist of 37 items based on existing instruments for instructional design quality. The research included principles of effective learning activity, learning resources, and organisation. The MOOCs evaluated were a random sample from those available in late 2013 across a variety of platforms. The authors found that, while all MOOCs were well-packaged, they all scored poorly overall (median 9, range 0-28, on a scale from 0 to72) indicating poor instructional quality. Lowenthal & Hodges (2015) reviewed six MOOCs applying the Quality Matters rubric intended for traditional for-credit online courses. They concluded that “two of the MOOCs could pass this review and, therefore, be considered high quality online courses”.

Poor quality pedagogy is considered a threat that can damage the reputation of the institution and counteract the vision of MOOCs as being the best that higher education has to offer (Schuwer et al, 2015). However, alternative MOOC approaches exist, providing more inclusive and social approaches. Examples are pedagogical approaches like the well-known cMOOC (Siemens, 2012) and the more recent sMOOCs model (Brouns, Teixeira, Morgado, Fano, Fueyo & Jansen, 2016). In addition, inclusive MOOC partnerships have emerged, such as the ECO project (Osuna Acedo, Frau-Meigs, Camarero Cano, Bossu, Pedrosa & Jansen, 2016) and the OpenupEd initiative (Mulder & Jansen, 2015). These initiatives are characterised by distinct criteria and quality processes related to common features, specific pedagogical models, training of skilled (e-)teachers and scalability of re-using MOOCs and MOOC content.

A controversial topic related to the quality of MOOCs is the reported low completion rate. Neuböck, Kopp & Ebner (2015) and Macleod et al. (2015) have confirmed earlier findings by Hollands and Tirthali (2014, p. 42) that only “3% to 15% of all enrollees” complete a course. Jordan (2014) reported that the majority of MOOCs had completion rate of less than 10% with a median of 6.5% (p.150), although more recent data show some improvement to a median of 12.6% (Jordan, 2015). For many

commentators, high dropout rates are a sign of the poor quality of MOOCs. But this may be only true in relation to the metrics of formal education i.e., if MOOCs are a pathway to formal higher education, low completion rates are disastrous. However, it is argued that many MOOC participants do not want to do the entire course; they are interested in gaining information and knowledge, but do not intend to get a certificate of completion. To make the personal learning objectives more visible, experiments with digital badging systems can be applied (Schön, Ebner, Rothe, Steinmann & Wenger, 2013), and the motivations and intentions of participants can be measured (Kalz, Kreijns, Niellissen, Castaño-Muñoz., Guasch, Espasa, Floratos, Tovar & Cabedo, 2014).

MOOCs for Lifelong Learning and Continuous Professional Development

MOOCs have prompted a broad discussion on the use of technology-based modes of teaching and learning in formal higher education and continuous professional development (CPD), as well as in initiatives to open up education. It is expected that new modes of teaching and learning, including MOOCs, will have an impact on the further development of these three areas of provision and will change the higher education landscape (CPL, 2015). MOOCs have become a symbol of a larger modernisation agenda for universities, intertwined with the concept of ‘unbundling’, and with related economic imperatives about the viability, scalability, and sustainability of higher education (Selwyn, 2014). Institutions are developing online variants based around their own range of programmes in order to raise their national and international visibility, while helping to improve internal quality (e.g., Manturuk & Ruiz-Esparza, 2015).

Unbundling of MOOC Services

The growth of the MOOCs movement raises issues relating to the function and practice of quality assurance. Currently, universities consider the quality assurance of the MOOCs they provide to be an internal matter. However, MOOCs and other new modes of teaching are part of the move to unbundling of educational services. MOOCs are complete courses consisting of educational content, assessments, peer-to-peer tutoring and/or some limited tutoring by academics. All of these components can be outsourced by higher education institutions to third parties, for example video recording of lectures, automatic grading programs, authentication services and exam centres. Partnerships are growing between universities and for-profit education companies, including major educational publishers and global testing services. Partnering allows universities to fast-track into MOOC provision without the need to build internal capabilities. As a consequence, quality assurance systems can no longer focus only on educational institutions. However, Ossiannilsson et al. (2015) note that national higher education ‘quality assurance standards and other regulatory instruments cannot easily be applied to partner organisations as they were not designed to regulate’ such entities (p. 46). Up to now, national quality assurance agencies in Europe have not considered the quality assurance of MOOCs to be within their remit (e.g., NVAO, 2014). This would need to change if MOOCs were to become considerable parts of degree programs in the future.

Consequences for Quality Processes

Since MOOC provision is much more open to external scrutiny than is campus-based higher education, the quality of what a country’s own universities offer as MOOCs is important to the ‘national brand’ of its higher education system; MOOCs form a window into the quality of the national HE system as a whole. The UK QAA recognised this in their 2014 position statement which states that MOOC providers should ‘ensure that they reflect the established reputation of UK higher education’ (QAA 2014).

MOOCs may therefore be part of a general endeavour to maintain competitive position in an expanding global market. These concerns will influence the degree of support of national governments for MOOCs and open education.

But this raises questions about how to ensure good governance, quality and overall responsibility for educational credentials. Assuring the quality of MOOCs should be seen as the shared responsibility of MOOC-platforms, cross-institutional partnerships and institutions, possibly with guidance and oversight from national quality agencies. To consider the balance between these stakeholders, an institutional and a MOOC platform perspective will be studied later in this chapter. In addition the quality label of a pan-European MOOC partnership (OpenupEd) is discussed in this context.

Quality by setting norm to various best practices and standards

About quality and quality assurance

The concept of quality in online education can be related to many dimensions. It can relate to quality of products and/or of processes. Quality can be viewed from the perception of the many stakeholder involved (“in the eye of the beholder”): learners and educators, but also higher education institutions (HEIs) and MOOC platform providers, quality agencies and government, and potentially employers and others who might recognise achievement in a MOOC. This multi stakeholders perspective is related quality as “conformance to requirements” (Crosby, 1979). It assumes the existence of a set of requirements, of the institution offering the MOOC and of the learners, described in such a way that no misunderstanding is possible.

Another perspective is related to “fitness for use” (Juran, 1998). For a MOOC, this formulation assumes a group of users, each with their requirements and expectations of the MOOC and its use(s). Both views may seem unrelated, but in reality they complement each other. In addition Nordkvelle, Fosslund & Nettleland (2013) states that quality may be reviewed from the macro level (national/global), meso (institutional) and micro (course/module)

Quality Assurance processes during the design, development and implementation of MOOCs can be complex. Quality Assurance (QA) on MOOCs cannot be easily standardised as they have several different aims. Even within one MOOC there are no uniform aims between actors involved (institution, the teaching staff involved and the participants). Moreover, MOOCs are designed for various target groups, and even within 'one target group' the motivation and intention of MOOC participants vary a lot. Note that QA is a systematic process designed to identify, analyse and eliminate variation (defects) in processes and outcomes. The overall aim is to guarantee a high quality of MOOCs.

Compliance to standards and norms

The previous section suggests that quality of MOOCs can be considered from at least the following four perspectives.

1. Quality from the learner’s point of view.
 - A participant might select a MOOC based a notion of brand reputation attaching to the MOOC platform, the originating institution, and possibly the course author.

- Other quality dimensions are needed, for example related to learner satisfaction. Some MOOC portals offer the possibility to let people rate different MOOC from various MOOC platforms and providers.
- Considering quality from the perspective of learners requires engaging with the diverse goals, expectations, learning behaviours, and abilities of learners to facilitate their own learning.
- MOOCs attract a diverse range of learners, who come from different backgrounds and have wide ranging motivations for enrolling in a particular MOOC (e.g. Hill, 2013; Kizilcec, Piech & Schneider, 2013).
- To make the personal learning objectives more visible, experiments with digital badging systems can be applied (Schön et al. 2013)
- On the other hand several schemes can be applied to measure the motivations and intentions of participants (Kalz et al., 2014).

2. Quality connected to the pedagogical framework of the MOOC

- By MOOC definition the pedagogical model of MOOCs should be designed to scale gracefully to unlimited numbers of participants, requiring the teaching and support effort to not increase significantly as the number of participants increases.
- Current research is beginning to examine qualitative indicators for dialogue and interaction that can guide the choice of pedagogical model.
- Downes (2013) has formulated four key success factors in this area: autonomy, diversity, openness and interactivity.
- Dalziel et al. (2013) describes different learning design principles to be applied on MOOCs as well.

3. Quality related to the input elements

- These may include aspects such as instructional design, the content and resources, multiple choice questions and assessment, the technology employed, and the quality of the teacher. These aspects fit with the conventional views of course quality.
- Margaryan et al. (2015) evaluated the instructional quality of 76 MOOCs and concluded that they all scored poorly overall
- Lowenthal & Hodges (2015) reviewed six MOOCs applying quality scheme intended for traditional for-credit online courses. They concluded that “two of the MOOCs could pass this review and, therefore, be considered high quality online courses”.
- Costello, Brown & Holland (2016) found a number of flaws when analysing the multiple choice questions of several MOOCs.

4. Quality based on outcome measures

- These might include the number of learners completing a MOOC or achieving certification. These metrics are (relatively) easy to measure.

- Neuböck et al. (2015) and Macleod et al. (2015) have confirmed earlier findings by Hollands and Tirthali (2014, p. 42) that only “3% to 15% of all enrollees” complete a course

- MOOCs generally attract only well-educated learners who already have higher education qualifications, and are already in employment (Macleod, Haywood, Woodgate & Alkhatnai, 2015).

- Learning outcomes can also be measures qualitatively. This overlaps with the first dimension (‘Quality from the learner’s point of view’), and can be measured by pre- and post-test of the motivations and intentions of MOOC participants.

- However, we know that not all learners intend to follow the instructional pathway of a MOOC. Taking completion rate as a measure for the quality of a MOOC has therefore been criticized (e.g. Jordan, 2015). It is argued that low values of conventional measures, such as retention and completion, may not signal poor quality.

Various checklist used for quality assurance on MOOCs

Until now the quality of MOOCs as reviewed according to the one or more best standards and norms according to above dimensions. In this the quality system is characterised by externally set norms and often focus on MOOC as a product. This section will give an overview of different checklist and criteria. In the next section the quality systems that have embedded processes aimed at quality enhancement towards their own objectives will be discussed.

Examples of checklists openly available are those by edX (many focussing on MOOC [development](#)) and those by [ECO](#) project (one focusses on [pedagogical](#), another on [review implementation](#)). In addition SCORE2020 partner DCU made their checklist available with an open licence (CC). This DCU/NIDL checklist is available on the next page and mainly focusses on learning design standards. In addition the following checklists are developed by SCORE2020 partners on the following quality dimensions (re-using some elements from above checklists).

1. Is it a MOOC or not?
2. Quality of the design of MOOCs
3. Accessibility
4. Technical platform and support for staff and participants

In addition other checklists are under consideration / development as related to a) quality of the content of the MOOC ; b) Legal: IPR and licences; c) Marketing MOOC including Social Media. The MOOC-for-Credits initiative is developing standards regarding several MOOC components as i) Landing page; ii) Syllabus; iii) Video lectures; iv) Assignments; and regarding development process and impact.

Quality dimensions according different MOOC initiatives

SCORE2020 partnership	MOOC for Credits	ECO project	edX MOOC development
1. Key performance Indicators for each MOOC separately 2. Is it a MOOC or not? 3. Quality of the design of MOOCs 4. Quality of the content of the MOOC 5. Legal: IPR and licences 6. Accessibility 7. Technical platform and support for staff and participants 8. Marketing MOOC including Social Media	i. Landing page ii. Syllabus iii. Video lectures with 3 subdimensions: Engagement time, Aesthetic evaluation, Audience evaluation iv. Assignments with 5 subdimensions: Validity, Reliability, Transparency, Inclusiveness and Authenticity v. other course materials vi. development process vii. MOOC impact with 4 subdimensions: Learning value, Relevance, Costs, Effectiveness	- public accessibility - learning pathways - Typology of pedagogical resources - Typology of proposed activities - Progression, score and challenges - Technical assistance and support - Design of animation and communication - Interaction with pedagogical team - Accessibility and mobility	- Course Introduction - Course Syllabus - Course Structure and Design - Assessments - Course Videos - Other Instructional Material - Learner Engagement - Certificate Preparation - Reruns, Reusability, and Licensing - Accessibility - Policy - Academic Integrity Considerations

Checklist used by NIDL/DCU



Dublin City University

QUALITY ENHANCEMENT GUIDELINES FOR DESIGNING ONLINE AND BLENDED LEARNING COURSES

The Quality Guidelines for Designing Online² and Blended³ Learning Courses described below are designed to support DCU's commitment to providing all students with a distinctive, exceptional and transformative learning experience for the 21st Century. They are intended to be used alongside other quality assurance processes to help enhance the design of your course through critical self-reflection and formative peer review. The Guidelines target individual modules and short courses in an online and blended learning format rather than whole programmes, although they may be useful in raising questions relevant to quality reviews. Importantly, they do not attempt to cover the role of wider institutional support services and appropriate infrastructures, which are addressed in other already established benchmarking tools. The Guidelines are structured around the six domains described in DCU's Teaching Enhancement Framework and operationalised through ten guiding questions, a series of related design elements and a range of more specific reflective prompts.



Dublin City University, 2016

² In this context the term online learning refers to courses that have been designed primarily for students studying in locations and circumstances where they do not regularly visit a physical campus.

³ In this context the term blended learning refers to courses that contain a mix of conventional teaching methods and online interactivity but have been designed primarily for students studying on a physical campus.

DOMAINS	GUIDING QUESTIONS	DESIGN ELEMENTS	REFLECTIVE PROMPTS	SELF-RATING
1. Identity, Narrative and Philosophy	<i>i) How strong is the course narrative?</i>	Narrative	<ul style="list-style-type: none"> • Does the course have a strong narrative? • Is there a story or central thesis running through the course? • How do you establish your own identity as an educator? • How explicit are your assumptions about teaching and learning? • What type of relationship do you want to establish with your students? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
2. Designing for Learning	<i>ii) How appropriate is the course design for your learners?</i>	Graduate Attributes	<ul style="list-style-type: none"> • Does the course align with your graduate attributes? • How does the course contribute to goals for the wider programme? • Are there explicit opportunities for students to develop core graduate attributes? • Is the course linked to DCU's Generation 21 Learning Aspirations? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Learning Outcomes	<ul style="list-style-type: none"> • What are the learning intentions? • Are there clearly stated learning outcomes? • To what extent are the learning outcomes relevant to students' and/or stakeholders' needs? • Are the learning outcomes defineable whilst also being aspirational? • When taken collectively do the learning outcomes encapsulate the essence of the discipline/profession? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Learner Profile	<ul style="list-style-type: none"> • Who are your students? • Has the course been designed with the learner in mind? • How does the course take in to account students' prior knowledge? • How does the course support a diversity of students from different backgrounds with different needs? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
	<i>iii) How well does the course flow between topics?</i>	Structure	<ul style="list-style-type: none"> • Is the course well structured? • Is there a 'natural flow' to the course? • Is it easy to see where you are in the course? • Is the course structured into appropriate units or themes following a logical and suitable format? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Appearance	<ul style="list-style-type: none"> • Is the online environment attractive? • Is the entry point welcoming and professional? • Is the online environment consistent and easy to navigate? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good

	<i>iv) How appropriate is the blend of study resources?</i>		<ul style="list-style-type: none"> • Is the online content uncluttered and free of formatting errors? • Is the layout and presentation informed by accessibility guidelines? 	<input type="checkbox"/> Could be Improved
		Flexibility	<ul style="list-style-type: none"> • How does the course allow choice? • Does the course design support flexible learning? • Are students able to engage with content at a pace and place convenient to their circumstances? • Is core content distinguished from supplementary resources? • Does the course support personalised learning pathways? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Wrapping	<ul style="list-style-type: none"> • Does the course integrate a range of learning resources? • How well is the online content wrapped around more conventional teaching and course materials? • Are static (print) and dynamic (electronic) learning resources well integrated? • Is the online environment more than simply a content repository or information dump? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Digital Media	<ul style="list-style-type: none"> • Is the technology appropriate? • Are learning objects in small bytes and reusable formats? • Does the course make effective use of open educational resources? • How does the use of digital media promote active engagement? • Are digital media including videos accessible to all students? • Do they come from authoritative sources? • Does your use of digital media meet copyright requirements? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Currency	<ul style="list-style-type: none"> • Is the content current and relevant? • How often is course content changed to maintain currency? • Has substitution of old material occurred when new content has been added to the course? • Is there a plan for when the course will be refreshed? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Workload	<ul style="list-style-type: none"> • Is the student workload realistic? • Is it consistent with the course time allocation or credit value? • Are the learning resources appropriate in type, level and length? • Do the student workload expectations fall within expected guidelines for weekly study hours? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved

		Delivery Mode	<ul style="list-style-type: none"> • Is the course design suited to the delivery mode? • Are students made aware in advance of what parts of the course will be available online? • Is the course suitable as an offering to be listed under DCU Connected? • Does the course design support people with limited Internet access? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
3. Facilitating Successful Learning	v) <i>How does the course interaction help to facilitate successful learning?</i>	Teacher Presence	<ul style="list-style-type: none"> • Is the teacher visible? • What efforts are made to project the teachers as real person? • Are expectations of the teacher's availability made explicit? • What opportunities are there for interaction with the teacher? • Is it made clear how often the teacher will respond to students? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Student Interaction	<ul style="list-style-type: none"> • How does the course encourage online participation? • Are there opportunities for students to collaborate, ask questions and talk to each other? • How is the course designed to promote a rich, vibrant and socially interactive learning community? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Active Learning	<ul style="list-style-type: none"> • Is the course engaging? • How does the course support active and meaningful learning? • Does the course involve a variety of interactive online activities? • Are activities appropriate and carefully sequenced to support deep forms of learning? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Teaching Methods	<ul style="list-style-type: none"> • What teaching methods are employed? • Are the methods appropriate for the learning outcomes? • Do they help to motivate learners and engage them in the discipline? • Is there evidence of an explicit teaching philosophy that informs the choice of methods? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Student Success	<ul style="list-style-type: none"> • Is it explicit how often learners need to contribute to the online environment? • ^a Are students made aware of what learning, library and technical support is available and are they embedded in the course design? • Are the learning opportunities accessible to all students, including those with special needs? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved

4. Assessment and Feedback for Learning	<i>vi) How does the assessment promote learning?</i>	Alignment	<ul style="list-style-type: none"> • Does the assessment align with the learning outcomes? • Does the assessment help students to relate their learning to broader work and life contexts? • Does the assessment support wider critical reflection on progress through DCU's learning portfolio? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Variety	<ul style="list-style-type: none"> • Does the assessment involve a variety of tasks? • How interesting is the assessment and will students find it rewarding? • Is the assessment authentic and grounded in real-world tasks? • How does the course design support transfer of learning through different types of assessment? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Challenge	<ul style="list-style-type: none"> • Is the assessment intellectually challenging? • Is it appropriate for the level and credit value of the course? • Does the assessment go beyond memory recall? • How does the assessment encourage deep learning and the development and sharing of products and solutions for real audiences? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
	<i>vii) How does the feedback scaffold learning?</i>	Feedback	<ul style="list-style-type: none"> • What type of feedback is given? • Does the assessment facilitate early and prompt feedback? • How will students receive timely feedback on their progress? • How does the course support peer and feed-forward feedback that goes beyond formal assessment? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Responsiveness	<ul style="list-style-type: none"> • Is the teacher responsive? • How does the teacher keep students informed of their progress? • How can students respond to their feedback? • Is there a planned way of providing feed-forward comments at key stages of the course? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
5. Evaluating Teaching and Learning	<i>viii) How is the course design informed by stakeholder feedback</i>	Evaluation	<ul style="list-style-type: none"> • How is the course evaluated? • Has the teacher acted on previous evaluation data? • Is stakeholder feedback collected from a variety of sources? • How have evaluation results informed the course design? • Has institutional learning analytics informed the course design? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved

		Effectiveness	<ul style="list-style-type: none"> • What sources of evidence are available? • Are sound methodologies used to evaluate the course? • Is learner success monitored across a number of indicators, including achievement, retention and completion data? • What evidence is there to support specific innovations in teaching? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
6. Continuous Development and Leadership	<i>ix) What types of professional development opportunities might be beneficial?</i>	Self Learning	<ul style="list-style-type: none"> • Is the teacher committed to their own learning? • How will the teacher engage in personal reflection and ongoing professional development? • Is there evidence that participation in internal and external professional development has informed the course design? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Quality Enhancement	<ul style="list-style-type: none"> • Does the course continue to evolve? • Is there evidence of continuous enhancement in the development of the course? • Has the course leader and teaching team identified areas for future improvement from evaluation data and through honest appraisal with colleagues? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
Overall Quality of Course Design	<i>x) How would you rate the overall quality of the course design?</i>	Coherence	<ul style="list-style-type: none"> • Is the course coherent? • Does everything hang together? • Has the course adopted an appropriate instructional blend to meet the stated learning outcomes for the particular student body? • To what extent is the online learning environment well integrated throughout the course design? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved
		Engagement	<ul style="list-style-type: none"> • Is the course design creative? • Does the course promote high levels of engagement? • Is the course design conducive to producing connected learners who feel part of the DCU learning community? • How does the course design support a distinctive, exceptional and transformative learning experience? 	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Could be Improved



Dublin City University, 2016

Checklist: Is it a MOOC or not?

MOOC definitions

What is seen as a MOOC is open to interpretation. There does not exist an unambiguous, straightforward definition of a Massive Open Online Course (MOOC) that is broadly accepted. The following definitions from different sources illustrate this.

A MOOC (massive open online course) is an online course that normally requires no prior qualifications for entry, can be accessed by anyone who has an Internet connection, and includes large or very large numbers of learners (generally 1,000 or more); scalability is its distinguishing aspect⁴

MOOCs are courses available to masses of online learners for little or no cost.⁵

MOOCs are free, open access and scalable online higher education courses.⁶

A massive open online course is an online course aimed at unlimited participation and open access via the web. In addition to traditional course materials such as filmed lectures, readings, and problem sets, many MOOCs provide interactive user forums to support community interactions between students, professors, and teaching assistants.⁷

MOOCs are online courses designed for large numbers of participants, that can be accessed by anyone anywhere as long as they have an internet connection, are open to everyone without entry qualifications and offer a full/complete course experience online for free.⁸

⁴ Porter, D. & Beale, R. (2015). A Policy Brief on MOOCs. The Commonwealth of Learning <http://oasis.col.org/handle/11599/825>

⁵ Selwyn, N., Bulfin, S., & Pangrazio, L. (2015). Massive open online change? Exploring the discursive construction of the 'MOOC' in newspapers. Higher Education Quarterly, 1-18.

⁶ Universities UK (2013) MOOC Higher Education's digital moment? <http://www.universitiesuk.ac.uk/highereducation/Documents/2013/MassiveOpenOnlineCourses.pdf>

⁷ Wikipedia: https://en.wikipedia.org/wiki/Massive_open_online_course

⁸ EU-projects: http://www.openuped.eu/images/docs/Definition_Massive_Open_Online_Courses.pdf

Common in these definitions are the following aspects to give meaning to the elements of a MOOC:

- Massive: designed for in theory unlimited number of participants. This means that the course is designed such that the efforts of all services does not increase significantly as the number of participants increases.
- Open: access to the course is free without entry qualifications.
- Online: the full course is available through the internet.
- Course: the offering is a course, meaning that it offers a complete learning experience, i.e. structured around a set of learning goals in a defined area of study and includes the course materials, quizzes, feedback, examination and certificate of completion.

For each of the elements different opinions are available. Dependant on which opinion one adheres to, the scope of what can be called a MOOC can be narrower or broader. To name a few differences:

- Open can be narrowed down to free availability only ; learning materials are not available under an open license)
- Online can be limited to all learning materials are available online during course period and some elements of a MOOC are only available offline
- Course can be narrowed down to exclude a certificate

Consequently, some online courses are not a MOOC according to the more strict definition.

How does a MOOC differ from an online course?

In relation to the MOOC definition it is essential to understand the differences with other educational provision.

For example MOOC differ from 'regular' online courses by at least three aspects

- MOOC are designed for in theory 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 for free

Consequently different acronyms for different kind of online or blended courses are proposed:

- SPOC (**S**mall **P**rivate **O**nline **C**ourses)
- ROOC (**R**egional **O**pen **O**nline **C**ourse)
- TORQUE⁹ (**T**iny, **O**pen-with-**R**estrictions courses focused on **Q**uality and **E**ffectiveness)
- DOCCs (**D**istributed **O**pen **C**ollaborative **C**ourse)
- SMOC (**S**ynchronous **M**assive **O**nline **C**ourse)
- OOC (**O**pen **O**nline **C**ourse)

Some of the above abbreviations might even not be characterised as online course as they require attendance to class room at a campus. The above type of online courses differ from MOOCs by some essential elements, mainly they limit the number of participants. Note that these type of online course can, for part, still be open by removing some barriers to education but are not open to everyone. And as such they are still contributing to the opening of education for all by designing a course to a limited by still multiple target group.

⁹ http://www.let.ethz.ch/projekte/closed/Concept_TORQUE_ETHZ.pdf

Based definition of a MOOC: “An online course designed for large numbers of participants that can be accessed by anyone anywhere as long as they have an Internet connection, are open to everyone without entry qualifications and offer a full/complete course experience online, for free.”, the following checklist is available

Table 1. Review “Is it a MOOC or not?”

Levels: NA (Not achieved) ; PA (Partially achieved) ; LA (Largely achieved) ; FA (Fully achieved)

Dimension	Criteria	Is it a MOOC or not?			
		NA	PA	LA	FA
Massive	The (pedagogical model of the) course is such that the efforts of all services (including of academic staff on tutoring, tests, etc.) does not increase significantly as the number of participants increases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open	Course accessible to (almost) all people without limitations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	At least the course content is always accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Course can be accessed anywhere as long as someone has an internet connection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	No qualifications / diplomas needed to participate in the online course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Full course experience without any costs for participants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Online	All aspects of the course are delivered online	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Course – study unit	The total study time of a MOOC is minimal 1 ECTS ((25-30 hours of study)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Full course	The course offers a full course experience including:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	educational content may include Video – Audio - Text – Games (incl. simulation) – Social Media – Animation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	offers possibilities for interaction, such as social media channels, forums, blogs or RSS readers to build a learning community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	participants are provided with some feedback mechanism. Can be automatically generated (e.g., quizzes), only by peers (peer feedback) and/or general feedback from academic staff, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	always includes some kind of recognition like badges or a certificate of completion. A formal certificate is optional and most likely has to be paid for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	study guide / syllabus includes instructions as to how you may learn from the presented materials and interactions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Checklist 2: Quality of the design of MOOC

Table 2. Review “Quality of the design of MOOC?”

Levels: NA (Not achieved) ; PA (Partially achieved) ; LA (Largely achieved) ; FA (Fully achieved)

Dimension	Criteria	Design of MOOC			
		NA	PA	LA	FA
Target group	MOOCs are accessible to all people and as such various target groups are identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	For each target group the needs, challenges and prior knowledge are described	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The description of each target group is supported by references different studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall goal	The overall objective of the course is described in a few sentences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning objectives	The course describes a limited number of learning objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	A clear statement of learning outcomes for both knowledge and skills is provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	There is reasoned coherence between learning outcomes, course content, teaching and learning strategy (including use of media), and assessment methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The prior knowledge of each learning objective is described and related to characteristics of target groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning activities	Activities aid participants to construct their own learning and to communicate it to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The "pathways" (activities, tasks and routes) are designed in such a way that they can be performed at different levels of difficulty or complexity, to account for the broad spectrum of participants' knowledge and skills that is expected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Various activities are proposed with different formats. For example: quizzes, peer-to peer evaluation, video conferences (Google+/Hangouts), activities in the forums and platform social networks or external social network (Facebook, Twitter, Goole +)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The MOOC contains differing levels of difficulty, with different learning pathways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The course contains sufficient interactivity (learner-to-content, learner-to-learner or learner-to-teacher) to encourage active engagement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Dimension	Criteria	Design of MOOC			
Feedback mechanism	Feedback by an academic tutor is limited and scalable (characteristic of MOOC).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The course provides learners with regular feedback through self-assessment activities, tests or peer feedback.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The frequency of monitoring been planned (forum, group, post)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	A weekly announcements or massive mailing with orientations for the following week is planned.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In each weekly session, the pedagogical team makes a synthesis of artefacts from the previous week's session.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Some live-events (Hangout, Tweetchat) are scheduled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Study-time	The total study time of all learning activities (including quizzes, tests and exam) is minimal 1 ECTS (25-30 hours of study)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workload	The schedule of the course is such that the workload per week is feasible for typical learners from the specified target group (typical 6-8 hours for those with full-time jobs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The MOOC is realistic in its pacing for the participant, accommodating to the individuals personal rhythm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessment	Learning outcomes are assessed using a balance of formative and summative assessment appropriate to the level of certification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Assessment is explicit, fair, valid and reliable. Measures appropriate to the level of certification are in place to counter impersonation and plagiarism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Participants can earn badges for completion of learning activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The MOOC has possibilities to follow the score and progression	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Checklist 3: Accessibility

Table 3. Review “Accessibility of MOOC”

Levels: NA (Not achieved) ; PA (Partially achieved) ; LA (Largely achieved) ; FA (Fully achieved)

Dimension	Criteria	Design of MOOC			
		NA	PA	LA	FA
<u>Web-accessibility</u>	Compliant to <u>W3C accessibility</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Compliant to <u>WCAG 2.0 according to EC</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accessible Information	Implemented the <u>Guidelines for Accessible Information</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The introduction videos are subtitled / transcribed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Participants are able to download, store, and use resources without an internet connection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accessible learning	Implement the Guidelines from <u>Universal Design for Learning</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Checklist 4: Technical platform and support for staff and participants

Table 4. Review “Technical platform and support for staff and participants”

Levels: NA (Not achieved) ; PA (Partially achieved) ; LA (Largely achieved) ; FA (Fully achieved)

Dimension	Criteria	Design of MOOC			
		NA	PA	LA	FA
Platform	The MOOC platform is reliable, secure and assures appropriate levels of privacy. Provision is made for system maintenance, monitoring and review of performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The MOOC platform provides a range of online tools which are appropriate for the educational models adopted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Staff support	The institution provides appropriate training for academic and support staff to develop the skills required to develop and deliver MOOCs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The institution provides adequate support and resources to MOOC staff and manages workloads appropriately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	MOOC participants are provided with clear and up-to-date information about courses including aims/objectives, learning and assessment methods, workload and prerequisite knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support for MOOC participants	Participants have access to their personal learning environment, follow progression, tasks, completion, badges, and publications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The institution uses social networking media to foster academic communities among MOOC participants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	MOOC participants have clear routes to academic, technical and administrative support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The participant assisted by a technical guide for good navigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In addition a FAQ is in place to support participants navigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The participant is assisted by pedagogical guidelines for good learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	A list of criteria for the learning activities, specifically for peer to peer evaluations, is available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Quality models and process related frameworks

Case-study: Quality assurance of online education in France

In France, there is no particular accreditation process for distance learning leading to degrees offered by HE institutions.

In fact, distance learning is evaluated in the same way as face-to-face learning, with distance learning being considered a teaching method.

Article 31 of French Law n°2016-1321 of 7th October 2016 stipulates that ‘Higher Education Establishments shall make available, where pedagogical methods permit, their teaching in digital form, under the conditions determined by their academic council or by the organ taking the place of such, and conforming to the measures set out in the code of intellectual property. This availability may be substituted for teaching offered in the presence of students in order to offer distance or lifelong-learning. Such teaching may lead to the award of a higher education qualification under the conditions of validity defined by decree. [...] **Teaching delivered by digital means shall have an equivalent status to teaching delivered in the presence of students** according to the methods prescribed by statutory paths.

Two direct consequences stem from this:

- Learning may be open at a distance without any obligation to offer its equivalent in physical teaching delivery, as was the case before the passing of this law.
- Academic councils or the organs taking the place of such validate distance learning offered by higher education establishments.

The adequacy of the distance learning offered is examined during the preparative stage of the accreditation of higher education establishments.

One of the French stakeholders in higher education distance learning is the **Interuniversity Federation for Distance Learning (FIED)**, which is composed of more than 30 establishments in higher education. FIED has put in place a working group on eQuality. It organised an international study day on this topic in January 2014 and produced a document: ‘**FOAD (Open-Access Distance Learning) eQuality: A Challenge for Universities?**’¹⁰. The necessity to integrate FOAD eQuality into the global strategy of the establishment has resulted from their work.

A certain number of key elements have been shown to ensure the quality of distance learning.

- Partnerships (nationally or internationally) and networking with their structuring nature are major contributors to this eQuality.
- Recognising the specific work in distance learning in teaching workloads goes further than simply putting content online and calls for particular pedagogical, technical and administrative systems. Consequently, these are all aspects which must be foreseen in a quality approach.
- A design brief recording the various obligations of the lecturer, may set out the requirements of the institution (description, design and follow-up of courses, work to be completed, marking of work, online correction, moderation procedures, and exam marking...).
- With regard to resources, their quality is met by their structuring, realisation and accessibility; the dynamic nature of the teaching situations offered which invites interaction; the creation of motivating learning activities and the development of appropriate evaluation.

¹⁰ http://intranet.fied.fr/_attachments/groupe-qualite-article-2/Copie%2520de%2520sauvegarde%2520de%2520140701%2520Qualit%25C3%25A9FIED%25208pages%25202.pdf?download=true

- The effectiveness of learning may be evaluated in different ways: the tally of success; satisfaction surveys, frequency of visits to the fora, active presence of the tutor and teacher (cf. the Sevaq+ method).

The labelling of learning by putting in place vocational tools for self-certification and evaluation, such as **Sevaq+** or **E-xcellence** would be the outcome of these eQuality measures.

Establishments can put in place labelling procedures, such as the **University of Avignon et des Pays du Vaucluse** and its **TICE** label, which aims to coordinate, harmonise and accompany the development of digital teaching practice within its sector. Within the framework of distance learning, the 'TICE' label certifies individual student monitoring thanks to digital tools. This is granted after 2 years of regular analysis of the digital practice of lecturers by their peers.

For **MOOCs**, each establishment is responsible for its policy of production and fulfillment.

Consequently, to ensure quality assurance, the establishment can put in place procedures whose adoption is essential for its creation.

For example, the **University of Lorraine** has produced its '**Guide to MOOCs**' for use by lecturers. It describes clearly the stages necessary for the development of a MOOC by one of the establishment's teams clearly brings to light the different decision-making stages, which function as many filtration stages guaranteeing its quality (components and/or collegium, Learning and IT vice-presidencies, end validation by the operator of the platform on which the MOOC will be published, and who monitors quality commitments by the establishment).

The **FUN-MOOC** platform, supported by the national Ministry of State Education, Higher Education and Research has put in place a charter setting out the quality commitments of the MOOCs which it hosts.

Three guiding principles cover a dozen rules concerning:

- *The constitution of a teaching team* making reference to a list for use by its members describing their roles and their field of expertise; a public document introducing its members and their field of contribution; an internal document giving the ways of interaction between the MOOC team, the structures and the governance of the establishment; a dashboard detailing the resources mobilised and a final summary of the features put in place.
- *The creation of pedagogic means conforming to the teaching objectives by ensuring the creation of a pedagogic, ethical and technical design brief for the MOOC*; the scripting of content; a trailer video and a detailed syllabus; whilst respecting the conditions of use of the MOOC for the personal output of the participants.
- *The offer of services and activities* to the participants, taking into account the availability of evaluation and self-evaluation means; setting up interactive and social tools; and the assurance of having the capacity to process evaluations in large numbers.

The **Open Educational Resources** (Les **Ressources Educatives Libres**) offered by the thematic digital universities (les **Universités Numériques Thématiques** or **UNT**) are of a certified quality because of an editorial policy founded on the quality of the contents and the supports used to produce them.

Scientific and pedagogical quality are assured by the creators (who are research-active teaching staff) and by the process of selection (expertise in validation by scientific committees organised into groups by discipline).

Technical quality is guaranteed, in order to allow accessibility and use of resources. Working groups study and out in place tools, norms and production processes concerning the indexing of resources and the use of editorial processes to offer durable, interoperable and easily-accessible resources.

UNTs have also produced **guides to best practice** concerning digital output. These guides concentrate on various problematics in the field of resource-creation, from the earn-in costs of a project, to technical, pedagogical and legal aspects and accessibility... They are available under the *creative commons* licence from UNT websites.

Those from the Virtual University of the Environment and Sustainable Development (**Université Virtuelle Environnement et Développement durable** or **UVED**) form a collection of guides designed for project-bearers, experts and occasional contributors to MOOCs, as well as technical, and pedagogical guides... (<http://www.uved.fr/navigation/accueil.html>)

Awareness-raising documents and tutorials on best practice in accessing resources digitally are offered in the form of modules. One of them, for example, consists of a collection of situations in which non-accessible material is presented, in order to show resource designers the difficulties encountered by disabled users of non-accessible content.

UNTs are confronted, within the framework of their activities, with questions of authorial rights and with drawing up cooperation contracts. One legal group, led by the **Digital French University of Law** (L'**Université numérique juridique francophone** or **UNJF**), has formed in order to identify the state of lawful practice within UNTs and to identify the issues and legal preoccupations. The results of its work are available on line and in the document 'Teaching Resources and Authorial Rights'. (<http://univ-droit.fr/unjf-cours>)

Within the framework of the PERICLES project for digitised evaluation and research around competences in higher education (**Projet pour l'Évaluation et la Recherche Informatisée autour des Compétences dans l'Enseignement Supérieur - PERICLES**)¹¹, The **e-Pericles** application has been created to allow establishments in higher education to put in place internal quality process relying on their own objectives and criteria and on student assessment of their teaching quality. The other aim is to contribute to the personalisation of learning pathways by supplying recommendations tailored to the profile of learners. In parallel, a Pericles observatory (<http://v2.e-pericles.org/>) allows them to collect anonymised data so as to be able to compare quality assurance approaches between different universities on a European level. It is not about ranking them, but about recognising the different criteria used according to each subject, the size of the establishment and the culture of each country. This tool can be used at the request of institutions (ministries or establishments) of departments or of lecturers looking to engage in quality processes. It can be set up within the framework of MOOCs. Many UNTs, such as The Open University of the Humanities (l'**Université Ouverte des Humanités - UOH**), have used this tool to analyse their users and the context in which resources are used.

Different Quality systems

Ossiannilsson et al, (2015) have studied existing quality models for online education, including MOOCs. They have identified and analysed several dozens of quality models worldwide. They categorised these quality models by the following functions and uses (p7-8):

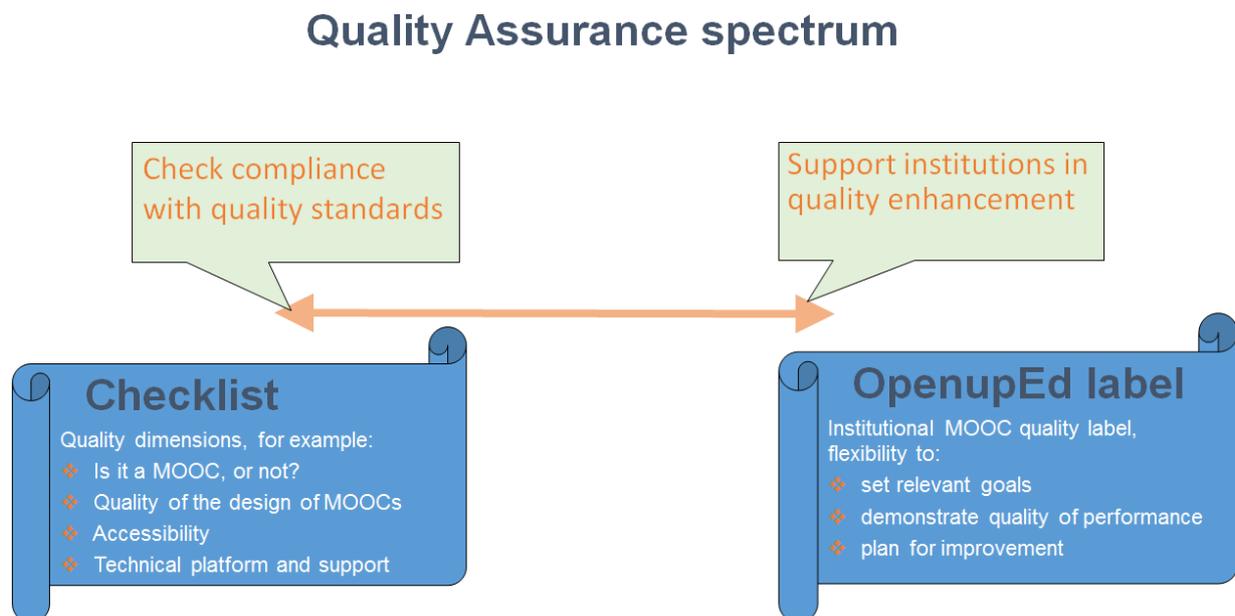
- certification granting a label as a level of recognition after some form of review
- benchmarking as a comparison of institutional performance with that of others,

¹¹ <http://v2.e-pericles.org/>

- accreditation as a form of mandatory certification or licensing by formal regulating agencies
- advisory purposes offering structured guidance

In addition they align different quality systems based on a maturity model: low maturity systems are characterised by externally set norms and often focus on product, whereas in high maturity quality systems institutions have embedded processes aimed at quality enhancement towards their own objectives. The latter are focusing on quality process.

The quality assurance spectrum in general is characterised



QA assumes a metric set of standards and best practices. OpenupEd states that quality principles developed for Higher Education (HE) could be used to improve the quality of MOOCs. This ranges from systems which check compliance to norms and often focus on product, to systems that aim at quality enhancement by focusing on process. Most present QA systems for MOOCs are characterised by externally set norms, whereas with the OpenupEd Label, institutions have embedded processes aimed at quality enhancement towards their own objectives.

Ossiannilsson et al, (2015) found that most models take a holistic view of quality, recognising the need to address many aspects of the enterprise. Quality must be seen as the result of the application of a systematic process of design and evaluation, aimed at improvement over time. As such, quality enhancement for MOOCs is an iterative process, and design methodology at different levels of granularity can support this.

Ossiannilsson et al. (2015) developed eleven recommendations regarding quality assurance for online education. Related to MOOCs they in general state that one needs to apply generic quality systems for online education in MOOCs with respect to flexibility needed (contextualisation, designing

personalised quality management system). In addition they recommend that one needs to a) support audits and benchmarking exercises; b) make these applicable to non-traditional MOOC providers as well (unbundling); c) address quality issues around credentialisation through qualifications frameworks and d) encourage, facilitate and support implementing quality assurance.

Involvement various stakeholders in MOOCs

Consequently, the concept of quality in online education, and particularly in MOOCs, is complex. There are a variety of stakeholders involved: learners and educators, higher education institutions (HEIs), MOOC platform providers, quality agencies, governments, and potentially employers and others who might recognise achievement in a MOOC. As stated quality can also be viewed at three levels: macro (national), meso (institution) and micro (course) level (Nordkvelle, Fosslund & Nettleland, 2013).

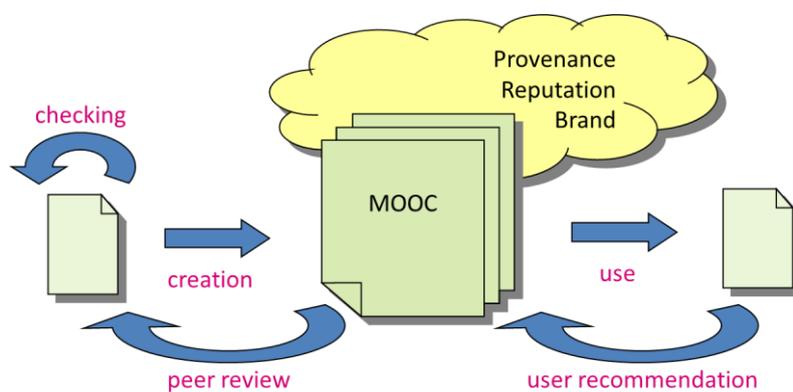


Figure 1: A model for MOOC quality processes

Figure 1 provides a simple view of MOOC quality processes. A learner faced with a choice of MOOCs will wish to be assured of their quality, and might wish to use reviews and recommendations of other learners. However, despite the very large numbers of MOOC learners, no MOOC rating website has become prominent and, given that many MOOCs are presented only once or a few times and may be changed between presentations, this approach may never bear fruit.

A potential learner therefore only has available a notion of brand reputation attaching to the MOOC platform, the originating institution, and possibly the course author. However, Daniel (2012) cautions that university brand is a poor measure of quality in online teaching, since reputations are gained primarily in research rather than teaching. Nevertheless, both HEI and platform have a stake in maintaining their brand reputation. They can impose control by acting as reviewer and final gatekeeper, and also ensuring that a quality process is followed during course creation. (This assumes that MOOCs remain predominantly products of HEIs and are often related to core curriculum.)

One can see the system encapsulated in Figure 1 as a quality system where improving quality should be reflected in some measure. However, what should be optimised for a MOOC: learner satisfaction, completion rate, or some other measure? These conventional measures may not be appropriate if the intentions of MOOC learners differ from those of a conventional university student (Ehlers et al 2013). Butcher & Hoosen (2014) also question whether tightly structured frameworks for quality assurance can be applicable to MOOCs, because openness and flexibility are primary characteristics of these new

approaches. However, the authors also suggest that, since both conventional HEIs and MOOCs offer higher education, quality principles developed for HE could be used to improve the quality of MOOCs and OER.

One way of dealing with these tensions would be to use a national or international quality framework which carries with it a certification or label. Such a visible recognition would act as a reassurance to all the stakeholders in MOOCs – learners, authors, institutions, platforms, employers, and quality agencies. In this chapter we focus on the OpenupEd Quality Label as an example.

The question then arises whether such a MOOC quality label should focus on product or process, and this echoes a long-running tension in the landscape of quality assurance in education. Ossiannilsson et al (2015) characterise this as a spectrum: from systems which check compliance to norms and often focus on product, to systems that aim at quality enhancement by focusing on process. They align this with a maturity model: low maturity systems are characterised by externally set norms, whereas in high maturity systems institutions have embedded processes aimed at quality enhancement towards their own objectives.

Ossiannilsson et al (2015) present a global survey of quality models for e-learning. They find that most models take a holistic view of quality, recognising the need to address many aspects of the enterprise. Although the models vary considerably in the detail and number of quality indicators, most cover a consistent set of important dimensions. For example, the E-xcellence framework uses six dimensions: Strategic Management, Curriculum Design, Course Design, Course Delivery, Staff Support and Student Support (Kear, Williams & Rosewell, 2014). If there is a consensus that this range of dimensions is appropriate for e-learning generally, it seems appropriate to use a similar framework for MOOCs.

The following case studies illustrate these ideas, and explore how quality can be assured during the development and presentation of MOOCs.

Case study: The Open University

This first case study discusses the UK Open University (UKOU), and its processes for offering MOOCs. This case study is presented broadly according to the six quality dimensions mentioned above.

Strategic Management

The UK Open University (UKOU) has a mission to increase access to higher education. Its courses and qualifications are open to all, regardless of prior qualifications. Most UKOU courses require payment, but since 1992 the UKOU has offered some learning resources for free. At the time of writing, it offers MOOCs in partnership with FutureLearn, as well as offering online open courses via its OpenLearn OER repository, some of which offer Mozilla badges on completion. FutureLearn MOOCs have a definite start time, and are hence presented to a cohort of learners; in contrast, OpenLearn courses can be studied at any time. In both cases there is a well-structured process for the development of the course, and for monitoring it in presentation, so that it can be improved.

The development of an open course follows a similar process to that used to develop all UKOU modules, although at a smaller scale. It still involves a number of staff from across the university, including academic faculties and the Learning and Teaching Solutions (LTS) unit which carries out course production.

Curriculum Design

A central Open Media Unit (OMU) has a specific remit to oversee and support open access developments, and each faculty has an Open Media Fellow whose role is to encourage the development of open access resources within the faculty. The process for approving a new course begins with a proposal from the faculty. This is then subject to institutional approval by OMU. In the case of a FutureLearn MOOC, there is also an approval process by FutureLearn, which depends on the fit with existing and proposed FutureLearn MOOCs from all partners.

Course Design

One aim of the design stage is that the course should provide a mix of different media and activities which will engage learners and support their learning. In the case of a FutureLearn MOOC, each week's study consists of a number of 'steps' of up to 20 minutes study time. The steps include resources and activities e.g. videos, animations, discussions. Interaction between learners is encouraged by having a discussion thread associated with every step. At the end of each study week there is a quiz so that learners can check their knowledge and understanding. During the course development stage, any third-party resources will be cleared for copyright; course authors are encouraged to use open educational resources or other material available via a Creative Commons licence.

Course Delivery

After several stages of drafting, critical reading, editing and checking, the course is put onto the platform - FutureLearn for MOOCs or OpenLearn for UKOU open courses. There is then a final check before it is signed off by the course authors as ready for presentation. For a FutureLearn MOOC in presentation, UKOU trained online facilitators monitor the discussion threads, engaging with learners in the discussions as appropriate. In addition, FutureLearn moderates the discussions to minimise any offensive contributions (learners can identify such contributions themselves).

Staff Support

Courses are typically developed during a short but intensive period by just one or two experienced UKOU academics. Course authors are supported by critical readers (who are often UKOU tutors) and colleagues from OMU and LTS, in particular an experienced OU editor. At an early stage in the course development, a Learning Design workshop takes place, based on a framework developed at the UKOU (Galley, 2013; Conole, 2013). The workshop involves specifying the aims/learning outcomes for each week of study, together with the learning resources and activities. Training is offered by the UKOU audio visual department for any staff who are to appear in course videos.

Student Support

Once the course is in presentation, a number of quality metrics and processes come into play. Learner activity is closely monitored and measured, and the data presented in detail back to the course authors in the form of a dashboard. Various measures of learner retention and activity are used as key parameters, both while the course is in presentation and once it is finished. For example, in a FutureLearn MOOC it is possible to tell if learners are struggling to complete a particular step; on this basis the learning resources for that step can be improved for later presentations, and the facilitators can be briefed on how to help learners in the current cohort.

At the end of the course, learners are invited to complete a feedback survey; or if they decide to withdraw part way through the course, they are invited to give feedback at that point. OMU also reviews the discussion threads, in order to investigate learners' reactions to different parts of the course. The survey data, together with retention data, student activity data and feedback gathered via the discussion threads, is used to carry out a review after the first course presentation. On this basis, decisions can be made as to whether the course should continue in presentation and how it could be improved for learners in the future.

Case study: FutureLearn

FutureLearn is an organisation that partners with universities and other groups to provide MOOCs on a wide range of topics. It is a limited company wholly owned by the UK Open University (UKOU) and benefits from the UK OU's long experience of online learning. The initial 12 FutureLearn partners were high status UK universities. At the time of writing, FutureLearn has 73 partners: the majority are universities in the UK and other countries, but there are also partners such as the British Museum and the European Space Agency.

FutureLearn courses typically last 3-8 weeks, and require 2-5 hours of study per week. The largest course, on English as a Foreign Language, attracted 400,000 learners in early 2015. FutureLearn has over 2.5 million registered users in more than 190 countries. In July 2015, 60% of FutureLearn users were from outside the UK; 60% were female; and the age range was from 13 to 93 (JISC, 2015). Most users already have a degree, but FutureLearn also has resources aimed at school leavers, including those making the transition to university.

FutureLearn has its own MOOC platform and hosts the MOOCs from all partners. The MOOC platform will operate on a range of devices, using different browsers. FutureLearn set out to create a 'modern, attractive, experience' for the learner (Simon Nelson in Chung, 2015) and it won the UXUK award for best user experience in late 2015. The pedagogical approach aims to make the learning experience simple and well-structured. Learning resources (e.g. text and videos) are organised into 'steps', which can be flagged as completed so that learners (and FutureLearn) can easily keep track of their progress. A model of social learning also informs the design; for example, discussion threads are closely integrated with the learning resources in each step so that learners can share ideas and experiences related to the material they are studying.

The FutureLearn approach of combining a clear structure and navigation with opportunities for discussion and debate appears to have led to high learner retention. An average of 22% of the people who begin a FutureLearn course are (to use FutureLearn's term) 'fully participating learners': they have carried out at least 50% of the steps and all the assessments (typically weekly quizzes). In terms of the number of people who sign up for a FutureLearn course, 12% are fully participating learners.

FutureLearn has a publicly available set of 'Openness Principles' which indicate its philosophy with regards to open education, intellectual property and privacy. FutureLearn also has a detailed policy on 'Accessibility and Inclusion', which is used when reviewing courses. This specifies the responsibilities of both FutureLearn and of the partner organisation providing the course material. The policy refers to FutureLearn's compliance with the World Wide Web Consortium's web content accessibility guidelines. For example, the FutureLearn platform can be used via a keyboard and a screen reader; attention is

paid to suitable font sizes and use of colour.

Learners may pay for a ‘Statement of Participation’ to demonstrate that they have completed a course, including the assessment. For some courses, and at a somewhat higher cost, FutureLearn offers invigilated examinations, in collaboration with Pearson VUE, which lead to a more formal ‘Statement of Attainment’. No FutureLearn courses currently provide credit points from the partner universities, although there is nothing to prevent this if the partner considers it appropriate.

The OpenupEd Quality Label

The OpenupEd partnership is an alliance of institutional MOOC providers, brought together by the European Association of Distance Teaching Universities (EADTU), who agree to follow the quality principles and practices represented in the OpenupEd Quality Label. The partners in OpenupEd have a commitment to opening up education through MOOCs to the benefit both of learners and of wider society. To this end, partners endorse the eight distinctive features described in Table 1 as guiding principles for their MOOC offering.

Table 1. The distinctive features of OpenupEd MOOCs

OpenupEd distinctive features	Explanation
Openness to learners [OL]	This captures aspects such as: open entry (no formal admission requirements), freedom to study at time, place and pace of choice, and flexible pathways. A broader perspective stresses the importance of being open to learners' needs and providing for a wide variety of lifelong learners.
Digital openness [DO]	Courses should be freely available online but in addition apply open licensing so that material and data can be reused, remixed, reworked and redistributed (e.g. using CC-BY-SA or similar).
Learner-centred approach [LC]	Courses should aid students to construct their own learning from a rich environment, and to share and communicate it with others; they should not simply focus on the transmission of content knowledge to the student.
Independent learning [IL]	Courses should provide high quality materials to enable an independent learner to progress through self-study.
Media-supported interaction [MI]	Course materials should make best use of online affordances (interactivity, communication, collaboration) as well as rich media (video and audio) to engage students with their learning.
Recognition options [RO]	Successful course completion should be recognised as indicating worthwhile educational achievement.
Quality focus [QF]	There should be a consistent focus on quality in the production and presentation of a course.
Spectrum of diversity [SD]	Courses should be inclusive and accessible to the wide diversity of citizens; they should allow a spectrum of approaches and contexts, accounting for a variety of language, culture, setting, pedagogics and technologies.

The OpenupEd Quality Label provides a process-based quality enhancement framework for MOOCs

and their providers. It was derived from the E-xcellence label (mentioned earlier) which provides a methodology for assessing the quality of e-learning in higher education. E-xcellence has a review process that is based around a number of benchmark statements, grouped according to the six dimensions of Strategic Management, Curriculum Design, Course Design, Course Delivery, Staff Support and Student Support. E-xcellence has been periodically updated in the light of feedback from its reviewers and to reflect the changing nature of e-learning in HE; at the time of writing (2016) the current benchmarks and manual (Williams, Kear & Rosewell, 2012) are being updated.

The OpenupEd quality label (Rosewell & Jansen, 2014) builds on E-xcellence by taking a similar approach; however, it adopts a lighter-weight process and adapts the benchmarks to better suit MOOCs. The benchmarks are divided into two groups: one that applies at institutional level and a second that applies to individual courses. The institution should be considered against the full set of institutional-level benchmarks but only at intervals. Every MOOC needs to be considered, but only against the much smaller number of course-level benchmarks.

An outline of the OpenupEd Quality Label process is as follows. OpenupEd partners are expected to be higher education institutions (HEI) that meet national requirements for quality assurance and accreditation. The HEI should have an internal procedure to approve a MOOC, typically a ‘light-touch’ version of the procedure applied to formal courses. The HEI should endorse the eight distinctive OpenupEd features listed in Table 1. New partners will obtain the OpenupEd Quality Label by a self-assessment and review process that will consider benchmarks both at institutional and course level (for two courses initially). The label must be renewed periodically; between institutional reviews, MOOCs will be reviewed at course level only. The HEI is expected to evaluate and monitor each MOOC in presentation, including data on participation, completion and student satisfaction, and an assessment of equality, quality, and diversity.

The self-assessment and review focus on the 21 institutional and 11 course-level benchmarks. A ‘quick scan’ checklist is provided (Figure 2) which lists the benchmarks with an accompanying grid to record two aspects. Firstly, an overall judgement on the extent to which the benchmark is achieved is recorded using a four-point scale: not achieved, partially achieved, largely achieved, or fully achieved (E in Figure 2). Secondly, a mapping can be made between each benchmark and the eight OpenupEd distinctive features; an initial mapping is provided but this can be adapted where necessary (D in Figure 2). For example, in Figure 2 benchmark 22 ‘A clear statement of learning outcomes for both knowledge and skills is provided’ is mapped to the distinctive feature ‘IL – Independent learning’ to suggest that evidence gathered in relation to this benchmark is also likely to provide evidence of a course suited to independent learning.

A		B	C	D								E			
Benchmark/indicator				OL	DO	LC	IL	MI	RO	QF	SD	NA	PA	LA	FA
Course level															
22	A clear statement of learning outcomes for both knowledge and skills is provided.	10					x								
23	There is reasoned coherence between learning outcomes, course content, teaching and learning strategy (including use of media), and assessment methods.	11			x	x	x			x					
24	Course activities aid students to construct their own learning and to communicate it to others.				x										

Figure 2: Part of the quick scan checklist. Key: A – benchmark number; B – Benchmark statement; C – cross-reference to E-xcellence manual; D – mapping to OpenupEd features; E – grid for recording benchmark

achievement

The quick scan can be used to give an initial picture of areas of strength and weakness. It can also highlight: where benchmarks may not be fully appropriate; where they may fail to capture good practice in a particular HEI or MOOC; and where additional detailed indicators might be helpful. The quick scan should then be fleshed out by a more detailed self-assessment process, ideally including different stakeholders such as teachers, managers, course designers and students. This should gather evidence for each benchmark, including the extent to which the evidence also supports the distinctive OpenupEd features. A plan detailing improvement actions is then prepared. The documented self-assessment and the improvement plan form the basis of a final review and discussion with external assessors, who then prepare a final report including their recommendation for the award of the OpenupEd Quality Label.

A number of documents and templates support this process. Assessor's notes are provided that cross-reference the OpenupEd benchmarks to additional indicators and background material in the E-xcellence manual (Williams, Kear and Rosewell, 2012), with supplementary material provided for MOOC-specific aspects where necessary (Figure 3).

31 Assessment is explicit, fair, valid and reliable. Measures appropriate to the level of certification are in place to counter impersonation and plagiarism.

See comments to Benchmark 29 above.

The advent of digital badges (for example Mozilla open badges) provides a method of rewarding achievement that may be appropriate for MOOCs. The award of digital badges can be linked to automated or peer assessment. Digital badges have an infrastructure that verifies the identity of the holder and provides a link back to the issuer and the criteria and evidence for which it was awarded. Badges thus may provide a validated award that can be kept distinct from the HEIs normal qualifications.

See also:

E-xcellence benchmark #17
Chapter 3 *Course design*
§ 2.4 Assessment procedures
§ 3.4 Assessment
§ 4.2.5 Online assessment

Figure 3 Example assessor's note, with cross-references to the E-xcellence manual.

The OpenupEd label in practice

The initial partners in OpenupEd were all members of EADTU. The consortium took the view that MOOCs from these providers were already being created under institutional quality processes that met the requirements of the OpenupEd label, and the initial portfolio of OpenupEd MOOCs therefore were not required to go through an additional review process.

Rodrigo, Read, Santamaría & Sánchez-Elvira (2014) report a self-assessment exercise of over 20 MOOCs on the UNED platform using the OpenupEd benchmarks. The assessed MOOCs had all been developed by experienced staff under a strong existing institutional quality framework for online learning; they could therefore be expected to meet the OpenupEd benchmarks. However the exercise highlighted some benchmarks which could not confidently be scored as largely or fully achieved; for example not all MOOCs gave a clear statement of learning outcomes, and materials were published under a restricted rather than an open licence. These are aspects that could be taken forward for discussion and perhaps inform institutional policy, leading to quality enhancement.

The authors also report that additional and more specific indicators would improve the benchmarking for their institution; these include specific academic roles (curator, facilitator), a variety of certification (badges, ECTS credit), and flavours of MOOC pedagogy (c-MOOC, X-MOOC, SPOC). The OpenupEd assessor's notes do incorporate most of these issues (see Figure 3 for example), but they were judged too specific to be included in the standard benchmarks. Rodrigo et al also report issues such as teacher's workload and accessibility issues which became apparent during a course-level exercise, but which are covered by OpenupEd benchmarks at institutional rather than course level. The OpenupEd quality process suggests that initial self-assessment can be used to highlight benchmarks that are not fully appropriate to an HEI and to discover additional indicators needed to capture aspects of good practice. Rodrigo and colleagues therefore conclude that the OpenupEd Quality Label is a versatile tool, providing guidance with sufficient flexibility to meet an institution's aspirations without being a straitjacket.

Discussion

The two case studies in Section 3 presented aspects of MOOC quality from the perspective of an institution (the UKOU) and of a MOOC platform provider (FutureLearn). In the discussion that follows we will focus on the joint enterprise – a representative MOOC designed by the UKOU and presented via FutureLearn – and do so through the lens of the OpenupEd Quality Label and its benchmarks (Rosewell & Jansen, 2014). The discussion is mapped to appropriate the OpenupEd benchmarks (for example #1) and OpenupEd features (for example DO; see Table 1 for key). To complete a quick scan (Figure 2) for a specific course would require in addition a judgement on whether the benchmarks and features are fully achieved or not.

Analysis of case study

Although we focus on this single example, it is likely that arrangements work similarly with other HEIs and MOOC platforms. It is also clear that quality emerges from the joint enterprise and is not solely the responsibility of one partner [#5, QF]. However, there is one reasonably clear division between the originating institution and platform provider marked by handover to the platform for publishing – before that point the weight of quality assurance falls on the HEI, with FutureLearn taking a greater role at and after handover [#6, QF].

The OpenupEd Quality Label takes the view that MOOC quality is best approached holistically, looking at the institutional processes as well as the completed product. Ossianniilsson et al. (2015) find the same approach in most e-learning quality frameworks. Both the UKOU and FutureLearn have clear strategies and processes for MOOC production which are seen as essential to ensuring quality [#3, #5, QF]. These include commissioning processes on both sides so that course proposals are scrutinised at

an early stage, one output of which is a course description [#18, #22, OL, IL]. This ensures that the course will meet the needs of learners [LC], as well as contribute to a MOOC portfolio that meets the strategic goals of both the HEI and platform [#1, #8, OL]. The UKOU delivers MOOCs on FutureLearn (with certificates) and on OpenLearn (with badges) [RO], which also includes access material [#8, OL, SD] and tasters for core non-MOOC curriculum [#7].

Both the UKOU and FutureLearn take very clear positions on aspects such as openness [#11, #27, DO], accessibility and inclusion [#4, OL], and these values therefore permeate normal work, helping to ensure that material is produced that conforms to accepted standards without needing rework at a late stage.

Course design is mainly the responsibility of the HEI, but is supported by guidance documents from FutureLearn [#9]. A strong steer is provided by the affordances of the platform, which is directed to a particular pedagogical model [#13, #23, LC, IL, MI]. This model appears to be successful, although it may limit the freedom of course authors to take alternative approaches. At a practical level, this can be seen in the way that FutureLearn currently only hosts a restricted set of resource types and activities [#13, #23], requiring the author or HEI to make alternative arrangements for some resources; the result is that not all FutureLearn courses are entirely self-contained [#5].

The UKOU process for course design follows the model used in development of their standard non-MOOC provision [#6, QF], although with fewer staff and at an accelerated pace. The early learning design workshop ensures that there is coherence between content, teaching and learning strategy and assessment [#23, LC, IL]. This workshop, together with guidelines from FutureLearn and the affordances of the platform itself (with its clear design in 'steps' and the emphasis on social learning [#20, #24, LC, SD]), also ensures that there is interactivity (student-to-student and student-to-content) to encourage active engagement [#29, LC, IL, MI]. Team writing and critical reading of drafts help to assure that content is relevant, accurate and current [#25, QF]. The process of course approval, which includes choice of authors, helps to ensure that staff have the required skills to develop material suitable for the proposed audience [#26, QF]. The UKOU already has significant capability in delivering online education with trained specialist support staff [#17, QF], but it has also provided some specific MOOC and media training [#15, QF]. The UKOU also has institutional structures and processes which promote educational research and innovation as important activities, for example its Institute of Educational Technology [#2, #16, QF]. FutureLearn complements this with the FutureLearn Academic Network which exists to promote research around the FutureLearn platform and its learners [#2, #16, QF].

A clear division of responsibility is seen in course delivery, with FutureLearn having responsibility for providing the platform, which is effectively outsourced by the HEI, presumably with clear service level agreements and financial arrangements in place [#5, #12]. However, there is a shared responsibility for human input: FutureLearn provide moderators and the UKOU provide the course facilitators who act in an academic role [#21, IL]. The UKOU provides training for those undertaking the facilitator role, ensuring that staff delivering the course have suitable skills [#15, QF]. FutureLearn publish policies and guidelines for support that is available to participants [#19, #21, OL, IL]. There is a further division of responsibility in assessment: UKOU authors create embedded self-assessment and a final quiz [#29, #30, LC, IL]; FutureLearn handles certification [#31, RO].

Finally there is also a division of responsibility for monitoring and evaluating courses. The FutureLearn platform provides analytic and survey data, which is fed back to the UKOU as a dashboard during presentation [#14, QF]. UKOU course staff monitor the presentation and are able to respond to issues raised in discussion threads, although there is limited scope for changing the material itself during presentation. A thorough review by the UKOU after presentation is used to decide whether to continue presentation and to identify changes required to enhance quality [#32, QF]; since this is overseen by an institutional body there is a mechanism to share experience more widely [#10, QF].

General reflection

It should be clear from the above discussion that quality of MOOCs can only be measured against their design principles. Quality is the result of the application of a systematic process of design and evaluation, aimed at improvement over time. As such, quality enhancement for MOOCs is an iterative process, and design methodology at different levels of granularity can support this (e.g. see Dalziel et al., 2013, for learning design principles).

Quality needs to be thought about at both the institutional and course level, and the focus must include process and not just the resulting product. Both FutureLearn and the UKOU have invested in structures and processes that embed a concern with quality throughout the development, delivery and evaluation of a MOOC in order to assure the quality of any individual MOOC. Noticeably absent from the case study descriptions is any formal stage in the process that is labelled 'Quality assurance': this is because a concern with quality permeates the whole process.

The OpenupEd Quality Label and its benchmarks is sufficiently broad ranging that it can capture the quality practices described in these two case studies. Clearly the contributions of both parties (UKOU and FutureLearn) would have to be considered as part of the review and label. Members of OpenupEd are expected to be HEIs and it would be the HEI and its MOOCs that would be labelled, rather than the platform provider. An interesting boundary case occurs when a MOOC is transferred from one platform to another; for example, MOOCs presented by the UKOU on FutureLearn are later made available as self-paced open courses on its OpenLearn site. In this case, the institution will need to check that the course still complies with the OpenupEd features.

Conclusions

This output has explored the key issue of quality in relation to MOOCs. It has considered how questions of quality are raised by MOOCs, and has proposed approaches for assuring the quality of MOOCs. The chapter illustrated these ideas through two case studies of quality assurance for MOOCs, one focussing on FutureLearn - a platform provider which supports many institutions - and the other on the UKOU - a single institution which uses multiple platforms. These case studies illustrated the different quality processes involved.

It is concluded that MOOCs require quality assurance processes that are tailored to e-learning, embedded in institutional frameworks. There are existing e-learning quality approaches intended for use in formal, credit-bearing education that can be pressed into service; Ossiannilsson et al. (2015) provide a useful overview and guide to the issues.

The output also introduced the reader to the pan-European OpenupEd framework for enhancing quality in the development of MOOCs. The OpenupEd Quality Label is derived from the E-xcellence

label, an established approach to quality assurance of e-learning and blended learning that has roots in the experience of open and distance learning institutions.

As HEIs increasingly collaborate on a global scale on their MOOC provision, additional quality processes are required. This is related to the unbundling of educational services and illustrated with FutureLearn and OpenupEd. These two examples demonstrates that this unbundling introduces distinct quality processes at a cross-institutional level. The OpenupEd Quality Label requires courses to address openness to learners and open licencing and is thus firmly rooted in the Open Education movement. This international dimension is expected to gain in importance as new kinds of partnership emerge (Osuna et al, 2016) and if MOOCs are to become considerable parts of degree programs in the future.

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Quality guidelines in Norwegian

Resource name: Kvalitetskjeden i høyere utdanning – en guide for digital kompetanse og undervisningskvalitet

Authors: Trine Fosslund og Kirsti Rye Ramberg

Aim/purpose: Describe the chain of stakeholders and their activities that make up quality in digital teaching and learning in higher education

URL: <https://norgesuniversitetet.no/skriftserie/kvalitetsguiden>

Topics covered:

- Definitions of quality and ICT for teaching and learning in higher education
- Discussion of the chain of stakeholders and their activities that make up quality in digital teaching and learning in higher education
- Criteria for quality in digital teaching and learning in higher education:
 - National level – government and relevant national organizations (macro)
 - Institutional level (meso)
 - Teaching and learning level (micro)

Resource name: Kvalitet i nettundervisning – en veileder

Authors: Fleksibel Utdanning Norge

Aim/purpose: Provide tools for and deepen the knowledge of those planning and executing online teaching

URL: <http://fleksibelutdanning.no/her-er-veilederen-digitalt/>

Topics covered:

- A model for planning a course
 - A relational model of didactics
 - Target groups
 - Subject matter
 - Describing learning outcomes
 - Choosing a pedagogic approach
 - Structuring and organizing a course
 - Learning activities and resources
 - Assessment of learning, assessment for learning
- Further reading
 - Examples and cases describing tools for digital teaching and learning
 - Learning outcomes
 - Advice for presenting knowledge online



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