The quality of open online education and learning

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Towards a Quality Reference Framework for MOOCs

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Abstract

This paper aims to address the quality issues of Open Online learning and education with a focus on MOOCs. Specifically, our research goal is to develop the Quality Reference Framework (QRF) with quality indicators and tools in close collaboration with all interested stakeholders worldwide. Based on a literature review and analysis of existing quality approaches and quality indicators for MOOCs, the Global MOOC Quality Survey was designed and targeted at three core interest groups of MOOCs: MOOC learners, MOOC designers and MOOC facilitators. A total of n=267 took part in the survey. The survey results were complemented with 45 semi-structured interviews where MOOC designers, facilitators and providers were involved. This is to provide a more coherent picture of the issue on quality of MOOCs by investigating the issue of MOOC quality from diverse perspectives. The paper presents first results from the survey, semi-structured interviews and the feedback from workshops at international conferences.

Introduction

Global challenges and changes in the educational and economic front have greatly shaped our working and living conditions as well as impacted how we teach and learn (OECD, 2016). Notwithstanding the individual process of learning has not completely evolved, the contexts and channels of teaching and learning are becoming more diverse (Stracke, 2017a). Within the Open Online Education, Massive Open Online Courses (MOOCs) has undeniably gained a strong foothold in the education arena, in particular, in higher education and lifelong learning. A first peak could be discovered in the year 2012 which was also commonly labelled as the "Year of the MOOCs": It gave rise to a growing discourse on the quality of MOOCs and their value as learning experience and educational tool (Conole, 2015, Gaskell & Mills, 2014, Reich, 2015, Stracke 2017b). The paper addresses this longstanding issue on the MOOC quality by investigating quality indicators of a good MOOC from the perspectives of four core stakeholders: MOOC learners, MOOC designers, MOOC facilitators and MOOC providers.

Method

The Quality Reference Framework (QRF) for MOOCs is the main long-term objective by means of both quantitative and qualitative research. To address the quality issues and to facilitate the QRF development, several research surveys and instruments with different theoretical and methodological approaches were developed and combined. They serve to analyse the current status and to explore needs from different perspectives. First, an in-depth literature review and analysis of existing quality approaches, evaluation instruments and quality indicators for MOOCs were conducted and the findings are currently under publication. Based on findings from the literature review and analysis of quality approaches, the Global MOOC Quality Survey was designed and developed in two phases: in phase one, a small pre-survey focusing on learners' intentions and

personal goals was implemented. There was a total of 45 participants. Findings showed that most MOOC learners and MOOC designers do not share similar intentions and goals. In phase two, the global survey was developed for three target groups: learners, designers and facilitators of MOOCs. It was conducted over a period of four months supported by leading international associations.

Participants

Table 1 presents an overview of all participants from the three target groups and of the subsets of participants that responded to the open questions.

Table 1: Overview of all participants of the Global MOOC Quality Survey and of the subsets for open questions

	MOOC learners	MOOC designers	MOOC facilitators	TOTAL
All participants	166	68	33	267
Open questions	117	41	27	185

Semi-structured interviews with MOOC designers, facilitators and providers were also conducted to obtain a more in-depth details and insights. Each interview contains different key questions for the three target groups and in line with the constructs of the global MOOC survey (see Table 2 below).

Table 2: Overview of the interviews with MOOC designers, facilitators and providers

	MOOC designers	MOOC facilitators	MOOC providers	TOTAL
Key questions	15	10	13	38
Interviews	15 x 1 hour	15 x 1 hour	15 x 1 hour	45 x 1 hour
Summaries	15	15	15	45
Transcripts	9	9	9	27

In parallel, several interactive workshops were also organized for further feedback and in-depth discussions at European and international conferences (see Table 3 below) with the aim to facilitate the close collaboration with all interested stakeholders worldwide for the development of the QRF.

Table 3: Overview of the workshop on the needs and phases for a QRF and related quality indicators

	OE Global 2017	EDUCON 2017	EARLI 2017	EC-TEL 2017
Participants	24	20	16	4
All questions	-	Yes	-	-
Key questions	-	Yes	Yes	Yes
QRF Phases	Yes	Yes	Yes	Yes
QRF Indicators	Yes	Yes	Yes	-

Results

The first major findings from the Global MOOC Quality Survey, the interviews and the workshops are described as interim results below.

Interim results from the Global MOOC Quality Survey

More than 250 participants shared their experiences and expertise (n=267) and most of them reported positive experiences with MOOCs. However, the experiences with MOOCs vary across the three target groups MOOC learners (n=166), MOOC designers (n=68) and MOOC facilitators (n=33): Learners (μ=4.22, σ=.876) rates their MOOC experiences higher than designers (μ=3.99, σ=.855) but a little bit lower than the facilitators (μ=4.30, σ=.529). Our first interpretation is that the designers underestimate their design work and the MOOC quality whereas the facilitators seems to slightly overestimate their influence as they may have felt responsible for the facilitation and therefore tend to indicate a more positive rating. Our in-depth analysis on the other data and correlations explore all relationships more in detail.

Interim results from semi-structured interviews

Two main areas addressed by all interviewed target groups (MOOC designers, facilitators and providers) were: The pedagogical design and the learning activities. For the pedagogical design, three critical determinants of the didactical approaches were highlighted and commonly repeated: Content, learning objectives and target learners. For the activities within the MOOC, three conditions to support the learning process were highlighted and commonly repeated: Interaction, feedback and assessment. That is in line with our expectations; however we need more in-depth data analysis. Currently the quantitative and qualitative analysis of the interviews has just begun started.

Interim results from the four workshops

Almost all workshop participants (61 out of 62) were positive on the selected five processes for the QRF (Analysis, Design, Implementation, Learning process and Evaluation; as presented in figure 4) and agreed or fully agreed with them. The feedback on the QRF target groups and proposed instruments and tools to support the introduction and usage of the QRF were diverse and the analysis of the data is underway. Also the workshop results will be analysed and evaluated to allow a better understanding from the feedback of learning communities attending in our workshops at international conferences.

Discussion

This paper presents the major findings and interim results from the first activities towards the development and design of a Quality Reference Framework (QRF) for the improvement of MOOCs and online learning and education. The data analysis has just started but the first insights are promising. In particular, the combination of different methodologies seems to provide a multi-dimensional overview of the needs and preferences of the different target groups. Our vision is to improve and to foster the quality in Open Online Education and Learning and in particular in MOOCs leading us to a new era of learning experiences. This paper is a first small step towards this ambitious objective to facilitate and support better MOOCs in close collaboration with all stakeholders worldwide.

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