MOOCs with Attitudes

Insights from a Practitioner Based Investigation

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***Abstract*— In the current educational landscape of shrinking public budgets and increasing costs, MOOCs have become one of the most dominant discourses in higher education (HE). However, due to their short history, they are only just beginning to be systematically investigated. In an attempt to shed more light on the MOOC phenomenon, this study complements other approaches by eliciting institutional attitudes to MOOC provision using qualitative content analysis on responses captured in a series of semi-structured interviews with participants who hold senior positions in universities and who are involved in creating institutional policy and/or the design and delivery of MOOCs. A context for these interviews was created by looking at MOOCs from historical, pedagogical, monetary and technological perspectives. Five topics emerged that were subsequently used as common points of reference for comparisons across the interviews: motivation, monetization, pedagogy, traditional universities and public access to higher education. The analysis of attitudes to, and the importance of, these topics are summarized, and also illustrated through quotes from the participants. Interestingly, it does not appear that MOOCs are regarded by insiders as disruptive as the media presents them, but rather are seen primarily as marketing vehicles for global education brands.**

Keywords—Open Learning, Web-based Education, MOOC

I. Introduction

MOOCs are a recent manifestation in the evolution of distance education (See Fig. 1). In particular, they represent a dramatic stage in web-based education systems [1] that has been enabled by the rapid growth of Internet access and increase in bandwidths over the past decade. For example, it was stated at the EdX launch [2] that '5–10 years ago technology would not allow us to do this'.

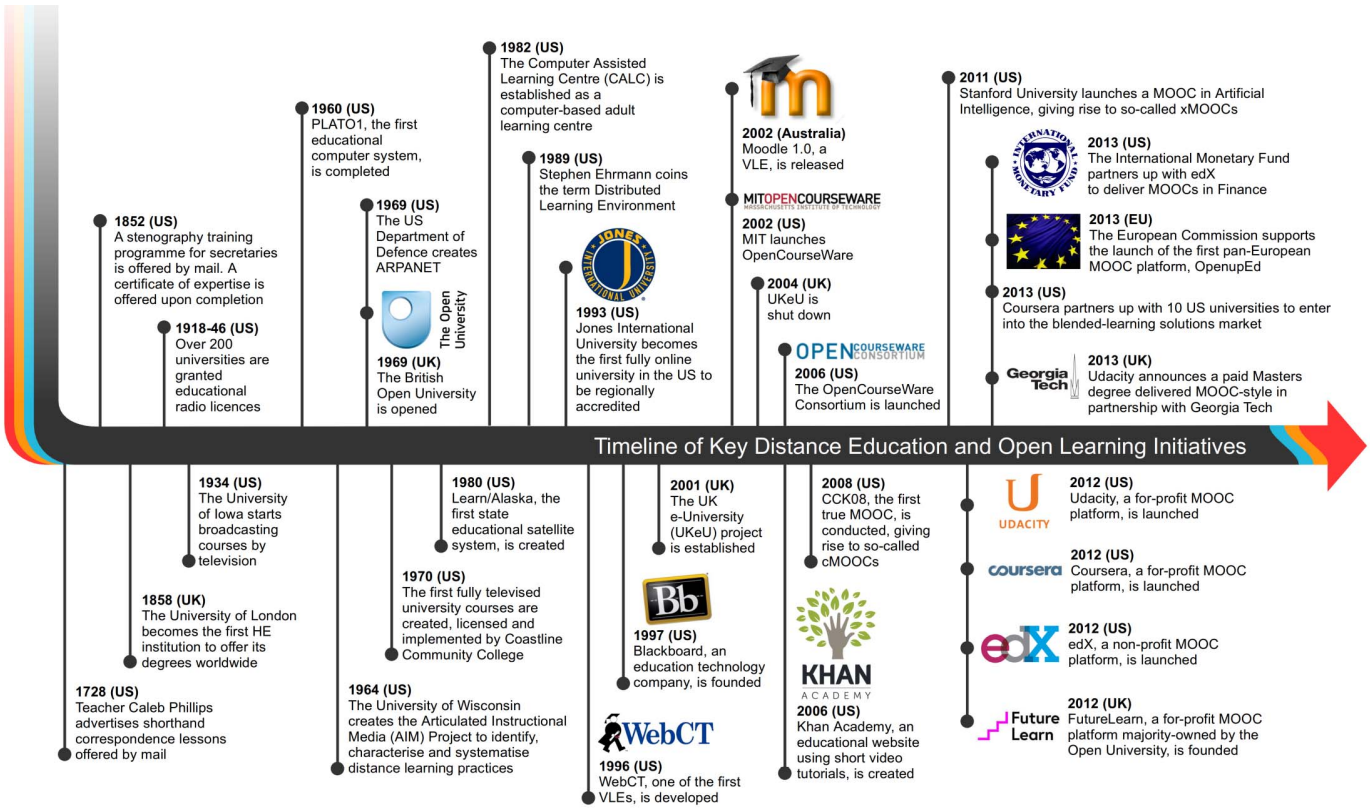

Figure 1: Timeline showing MOOCs in the historical contexts of Distance Education, Open Learning and Web-Based Education

MOOCs have evoked great interest among the media, educators, and the general public, but studying them continues to be a challenge [3]. Although a plethora of journalistic articles and blog entries has been written on the subject, their short history and constantly evolving nature leave the implications and meaning of the phenomenon confused and contested within academia. MOOCs have found themselves in the centre of educational debates but not always for positive reasons; extremely high dropout rates and a lack of established business models are only a couple of the issues that MOOC providers are currently grappling with. As a result, we still lack coherent and systematic knowledge of this volatile phenomenon. Several categorization schemes have been proposed and detailed analyses of logs have begun to show how MOOCs are used in practice by learners [4] [5]. The aim of this study is to complement these approaches by exploring institutional attitudes towards MOOCs. This has been done by carrying out semi-structured interviews with participants who hold senior positions in universities and who are involved in creating institutional policy and/or the design and delivery of MOOCs.

The next section gives an overview of MOOCs which informed the design of the semi-structured interviews. The following sections then describe the methodology, the participants, and the attitudes which emerged.

II. MOOC Overview

A. MOOC Pedagogy

The most popularised categorisation of MOOCs is based upon two distinct pedagogical foundations: *connectivism* and *behaviourism*. These are reflected in the so-called *cMOOCs* and *xMOOCs*, respectively. Interestingly, it was the latter type that evoked significant media interest during 2012/13. Therefore, unless otherwise stated, the acronym 'MOOCs' usually refers to xMOOCs.

The original cMOOC was launched at Canada's Manitoba University in 2008. As described in [6], the connectivist theory of education: 'views knowledge as a networked state and learning as the process of generating those networks and adding and pruning connections. Of particular importance in cMOOCs is the view of knowledge as generative and the importance of artefact creation as a means of sharing personal knowledge for others to connect to and with.' In essence, the basic principle of cMOOCs is a networked community which a learner connects to and interacts with [7].

At the other side of the ideological spectrum are content-based MOOCs (xMOOCs), which developed a few years after their connectivist counterparts (see Fig.1). This model 'is essentially an extension of the pedagogical models practiced within the institutions themselves, which is arguably dominated by the "drill and grill" instructional methods with video presentations, short quizzes and testing' [8]. However, the limitations of behaviourist pedagogy in teaching higher order thinking has been widely criticized, such as in [9]. The problem with this approach is that it emphasises information transfer from teacher to student rather than stimulating critical, creative and original thinking skills in the learner. Indeed, it is often considered to be a very old and out-dated theory which is not sufficient to educate today's knowledge-based societies.

B. Leading xMOOCs

An overview of the original high profile xMOOC platforms/providers is presented below.

Coursera is a for-profit company founded in April 2012 by two Stanford University professors, Andrew Ng and Daphne Koller, with a $22 million start-up investment from various venture capitalists, and donations from HE institutions such as Caltech and the University of Pennsylvania. The company offers MOOCs in a variety of disciplines, including Humanities, Medicine, Biology, Social Sciences, Mathematics, Business, and Computer Science. As of March 2014 it claims to have had 7.5 million users, and 642 courses on offer from its 108 partners.

Udacity is a for-profit company established by Stanford University professors, Sebastian Thrun, David Stavens, and Mike Sokolsky. By March 2013, Udacity had raised more than $21 million in venture capital. It specialises in computer science-related fields. As of February 2014, Udacity had 9 full courses and 24 free courseware, but a relatively small number of partners, although these include global brands such as Georgia Tech, Google and Autodesk.

edX is a not-for-profit platform launched in April 2012 by MIT and Harvard University. Each of the two institutions contributed $30 million to start the project. The project's mission is to 'improve education on campus and around the world'. In June 2014 it had 34 charter members who are world leading research universities. The group is dominated by members from North America and Europe but there is also representation from Australia, China, Japan and South Korea. No members are listed from South America or Africa. In June 2014 edX is offering 176 courses and claims to have had 4 million enrolments and 400,000 completions since its inception.

C. MOOC Business Models

As noted in [8], 'the rapid expansion of MOOCs has sparked commercial interest from venture capitalists and major corporations who want to enter the HE market using a MOOC approach.' Investors must have strong faith in the MOOC phenomenon, as they continue to pour millions of dollars into MOOC initiatives. Coursera, for instance, not only gathered $22 million in venture capital in the first round of financing, but it raised another $43 million in early 2103 [10]. With such impressive influxes of money, MOOC platforms follow a 'build fast and worry about money later' approach based on the reassurance from venture capitalists that 'if you build a Web site that is changing the lives of millions of people, then the money will follow' [11]. There is one major problem with this business strategy, summarised in a sentence from *The Good Investor* [12]: 'Operations for profit should be based not on optimism but on arithmetic.' Unfortunately, the arithmetic has yet to work

out in MOOCs' favour. Despite all the external investment, a fully-fledged business model remains evasive. Meanwhile, it is only a matter of time before venture capitalists start demanding a return on their investment. Without their financial support it is unlikely that MOOC platforms financed in this way can survive, especially in the face of their annual operational costs counted in millions of dollars.

D. MOOC Architectures

MOOC as a Service (MaaS) is the cornerstone of the leading xMOOCs. An organisation offers its own platform to partners for course-hosting. The partners gain the advantage of not having to invest in, build and maintain their own infrastructure but can rather channel resources into pedagogy and course construction [13]. For-profit companies such as Coursera, Udacity and FutureLearn provide MaaS for their partners. edX has similar MaaS contracts with its carefully selected academic partners, but the non-profit organisation has also made a version of its platform open-source. There are also relatively open MOOCware platforms such as Canvas, Course Sites and OpenClass which can be used for no charge by any bona fide educator.

Social interaction in MaaS-based xMOOCs is widely considered to be an Achilles' heel, which might be one of the factors contributing to their high drop-out rates. The MaaS approach to social learning currently emphasises discussion via platform-embedded elements, usually limited to forums and wikis. In effect, there is 'little collaboration or sharing of content or resources with classmates outside of the course discussion boards, i.e. Facebook or Twitter' [14]. FutureLearn claims to have redressed this infamous feature of xMOOCs, although this seems to be a recommendation to use Tumblr, Wordpress and Blogger to connect with peers, and use Pastie and Notehub for jotting down or copying particular texts for later use in a shared blog [15].

While the MaaS architecture reflects a centralised approach to content publication and social interaction, cMOOCs taking place within *distributed learning spaces* are the exact opposite. Because of the connectivist theory underlying these courses, learners are free to use a variety of tools and technologies for participation and artefact creation, including blogs, wikis, Twitter, Facebook, YouTube, and many others. In this environment, the role of the course facilitators is to provide: 'an infrastructure for content and administrative details (in the form of a wiki or a Web page); a schedule for synchronous sessions involving guest speakers or live discussions; a means of communicating with participants and providing course updates (often handled through email and blogs); and starting points for learners to form connections with each other (a learning management system such as Moodle) [6] .'

E. MOOC Learners

The population of MOOC participants is characterised by a high degree of diversity in terms of their gender, age, origin, education and occupation status. For example, a Duke University MOOC attracted 12,000 enrolees from over 100 countries [16]. What is more, 'at the time of the enrolment, one-third of enrolled students held less than a four-year degree, one-third held a Bachelors or equivalent, and one-third held an advanced degree'[16]. On the other hand, [17] investigated the demographics of students enrolled on three computer science courses delivered from Stanford via Coursera, each at a different level of advancement: high school (HS), undergraduate (UG), and graduate (GS). Their results indicated that 'the vast majority of active learners [were] employed full-time, followed by graduate and undergraduate students', and that 'most learners in the UG-level and GS-level courses [came] from technology-related industries'. These two studies suggest that MOOCs are especially popular among people currently in HE and technology professionals. In [18] it is summarized that 'Data from MOOC platforms indicate that MOOCs are providing educational opportunities to millions of individuals across the world. However, most MOOC participants are already well-educated and employed, and only a small fraction of them fully engages with the courses. Overall, the evidence suggests that MOOCs are currently falling far short of "democratizing" education and may, for now, be doing more to increase gaps in access to education than to diminish them.' A major challenge for MOOC providers is therefore how to reach other audiences, in the spirit of delivering quality education to those who would not otherwise have an interest in, or access to, it.

Reports from the EdX Circuits and Electronics class [19] and Edinburgh University's courses through Coursera [5] indicate that the US and the UK tend to be the most represented countries, respectively. Signifciantly fewer participants came from developing countries. Surprisingly, one analysis [19] noted that only 622 of the 155,000 initial enrolments were from China. In effect, reaching out to non-US/UK/Europe-based audiences appears to be a significant challenge.

From a gender perspective, courses vary in terms of their male-female ratios. In [2] it was revealed that male participants were dominant in all three courses that they analysed. There were approximately seven times more men than women participating in the UG- and GS-level courses, while the proportion was more balanced at the HS-level, with 64% men and 36% women. The high numbers of male learners in those MOOCs appear to reflect the social fact that science-related fields tend to be male-dominated. Some examples of courses where women were more numerous include Edinburgh University's "Introduction to Philosophy" and "Equine Nutrition" [4].

III. METHODOLOGY

A qualitative content analysis approach was adopted - a method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns [20]. Importantly, a qualitative approach to content analysis goes beyond mere word-counting and statistical analysis. In fact, a statistical approach would not be appropriate in this type of research;

as noted by [21], sampling strategies accompanying qualitative research do not aim to identify statistically representative groups of respondents, so applying statistical tools to the data could produce misleading results. This research therefore does not offer statistical significance, nor does it make a claim for generalizability. Nevertheless, qualitative data 'are a source of well-grounded, rich descriptions and explanations of processes in identifiable local contexts' [22]. In effect, the study uncovers themes and patterns relevant to a social reality – an institutional outlook on MOOCs – enabling an in-depth analysis of attitudes of various educational stakeholders linked to the MOOC phenomenon.

Before the interviews were scheduled an ethics review took place in accordance with the University's procedures; clearance was given to proceed. All participants were given information sheets which stated that the data would be anonymised, and all gave informed consent.

A. Data Collection

Data collection was based on semi-structured interviews. This interview type was chosen for the following reasons [23]:

- It allows for the development of an 'interview guide', i.e. a list of questions/topics to be covered during the conversation;
- The semi-structured interview guide provides a clear set of instructions for interviewers and can provide reliable, comparable qualitative data; and
- It is the most appropriate option when there is only one opportunity for an interview with a particular person.

Since all participants were interviewed during their working hours, the interview length was kept to an hour. Depending on their geographic location, some individuals were interviewed face-to-face in the workplace, while others were contacted by Skype. With the participants' permission, all conversations were audio-recorded for later analysis.

B. Common Topics

Due to differences in the interviewees' roles and experiences with MOOC provision, questions were tailored to each individual. At the same time a common set of topics were raised in all conversations to allow them to be compared and contrasted. These included:

- Motivations for MOOC provision, or lack thereof, to explain both the value proposition of MOOCs to universities as well as the concerns preventing some from involvement;
- MOOC financial viability: to explore whether institutions share the concerns over the lack of a clear business model;
- The quality of the dominant pedagogy behind many MOOCs i.e. behaviourism;
- MOOCs' influence on the traditional university, especially whether or not they have the potential to destroy the 'bricks-and-mortar' institutions;
- MOOCs' influence on the public, i.e. whether or not they can contribute to knowledge democratisation by delivering leading universities' courses to students across the world.

C. Data Anlaysis

Each interview was fully transcribed, after which qualitative data analysis software was used to code textual data.[1] This study adopted a mix of both deductive and inductive approaches to coding, i.e. it coded for issues related to the research objectives (the deductive approach), and it inductively identified new themes as the interviewer went through the transcripts.

The initial unit of analysis was set at one-to-two-sentence segments aimed at creating a rich and explicit description of the data. The analysis was conducted in an iterative manner to ensure code consistency. With the progression of the analysis, recurrent themes started to emerge, allowing codes to be sorted on the basis of 'more subtle and tacit processes' [24].

IV. Participants

Due to time constraints, a strategy used for interviewee selection prior to data collection was based on 'reputational case selection' [22], where participants are chosen on the recommendation of experts in the area i.e. two of the authors in this case.

TABLE I. PARTICIPANTS

Inter-viewee	Profile
I.1	A computer scientist, author and consultant
I.2	Has led academic processes, coordination and central support for MOOCs at a university collaborating with a MOOC platform provider
I.3	An expert in e-learning and distance learning
I.4	Has lead the decision-making process to put their institution's MOOC plans on hold
I.5	A computer scientist at a university involved in MOOC development with a MOOC platform
I.6	An expert in educational technology involved in the provision of a MOOC platform
I.7	Has created their own MOOC for law students
I.8	Has been involved in identifying, designing, and developing e-learning programmes at a HE institution offering MOOCs via a provided platform
I.9	A professor at a university offering MOOCs via a provided platform, and an instructor for an upcoming course to run on that platform
I.10	An expert in e-learning at a university offering MOOCs via a provided platform

[1] Codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study.

As a result, non-probabilistic, purposive sampling was applied, aiming to identify a set of educational stakeholders with different types of involvement with MOOCs. In total, ten professionals were interviewed: six from the UK and four based in the US. In order to preserve anonymity, data is presented in the form of *I.1* (Interviewee 1), *I.2* (Interviewee 2), and so on. However, to demonstrate the relationships between participants' views and their connection with MOOCs, a brief profile of each interviewee is presented in Table I.

V. Analyses

This section summarizes the analysis of the coded responses to the common topics raised in interviews: motivation, monetization, pedagogy, traditional universities and public access to education.

A. Motives for MOOC Involvement

Describing the current value proposition of MOOCs, Educause [25] identified three main areas that stir university leaders' interest in MOOC provision: access to education, experimentation and brand extension. The results of this research confirm the popularity of these motives, but they also uncovered a range of other factors. Interestingly, the results show that universities attach different levels of importance to motives behind MOOC provision, creating a hierarchy of the motivations' significance visualised in Figure 2.

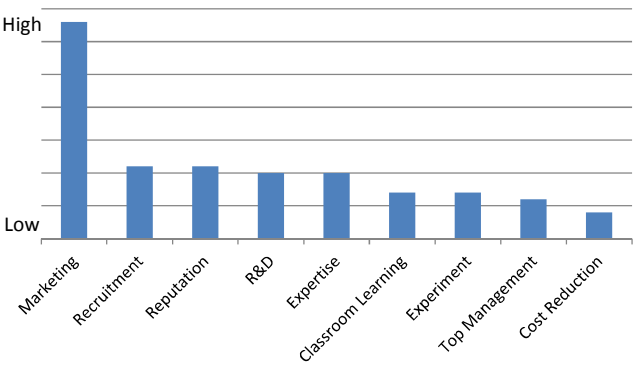

Figure 2: A summary of the analysis of interviewees' accounts of their institution's motivation for MOOC involvement. The Y axis is the inferred importance.

As indicated in Figure 2, MOOCs are predominantly perceived as an excellent marketing tool. All participants believed that MOOCs have the potential to increase institutional presence in the international arena, reach new audiences and advertise existing courses. As expressed by interviewees,

> '*once people get MOOCs out there, it makes the college a little more visible. You get the possibility of gathering more interest about the college from a wider audience*' (*I.10*), as well as '*promoting the quality of [the university's] teaching and learning*' (*I.6*).

Perhaps surprisingly, the individuals with MOOC provision experience considered the money-making potential of MOOCs irrelevant. For example, *I.7* explicitly stated: '*We view [MOOCs] as a marketing strategy, not as a real money-maker*'. Although Institutions may be sceptical about a direct flow of revenue from MOOCs, they do appear to believe in their indirect influence on university finances. As noted by [26], *'brand-name universities are using MOOCs for marketing in an attempt to lock in future revenue, and expand to new educational markets.'* Confirming this statement, the interviewees in this study expressed their hope that the international reach of MOOCs' will translate into boosted recruitment figures for universities' traditional on-campus programmes and/or online degrees.

Enhancing institutional reputation is another motivator for universities, especially in terms of being perceived as an early adopter of a new technology. As stated by *I.2 'reputation matters clearly, and if you are a first-mover in an area, you do want to extract maximum reputational value from it.'*

Being an early adopter gives an opportunity to innovate: 'Experimenting with alternative solutions [may lead to] identifying the technological winner and translating this leadership into competitive advantage' [27]. As a result, some universities perceive MOOCs as *'an enormous opportunity for educational R&D*' (*I.2*), which will push the envelope of technologies used to deliver their online degrees. In other words, it is an investment hoped to contribute to the improvement of both current learning technologies and the quality of teaching, and ultimately aimed at giving the institution a competitive edge in the HE market:

> *'Everybody who's run a MOOC has now got experience of running a course fully online with a very large number of people. You could argue that it is priceless to get that experience, because it then enables you to do other stuff that otherwise you would never have done.' (I.2).*

For universities which have *expertise* in online programme delivery, it is often a matter of assessing whether or not the reputational costs of opting out of MOOC provision outweigh those related to conducting a MOOC project. Such institutions feel pressurised to provide MOOCs in order to maintain their position in the fields of distance education and online learning:

> *'One reason we got involved in MOOCs is – risking sounding a little vain – we are recognised as a leader in online learning and distance learning and we thought from that perspective: If you're not going to at least dip your toe in the water, how can you continue to hold a leadership?' (I.8).*

However, the motives for MOOC provision do not revolve exclusively around institutions' financial interests; the interviews provided evidence that the students themselves have not been completely forgotten. Beside the popular

research and development motivation analysed above, this was particularly evident during the conversation with *I.7*, who created their own MOOC. In fact, the main rationale for developing the course was simply *'to improve the opportunities for hands-on skills training inside of the large classroom setting.'* This suggests that improving student experience can play an important role in MOOC provision, and will hopefully continue to guide their future development.

Two interviewees identified *top management's* interest in MOOCs as the reason for their serious consideration of MOOC provision:

> *'It was really the Principal that was interested, so the Principal had been in discussions with the head of [an institution responsible for MOOC delivery], and it was the Principal that signed the original […] agreement document' (I.5).*

Finally, two other participants pointed to the potential cost reductions coming from MOOCs:

> *'I do know a lot of institutions have jumped into this because they see it as a way of saving costs – they'll use MOOCs as part of their curriculum' (I.8).*

B. Reasons for Not Providing a MOOC

Not every HE institution is willing to get into the act. Many universities choose a 'conservative adopter' approach, 'believing that it is premature to make a significant investment in [MOOC] technology' [27]. In general, conservative adopters voice concerns over: 'the potential for escalating costs relating to support of the technology […], the risk of acquiring a […] solution that will not survive in the market […], or questions whether the organisation's use of the technology will be sufficient to generate the benefits necessary to justify the investment' [27].

I.4's institution is a good example of a conservative adopter. The interviewee explained why their university has put its MOOC plans on hold, identifying three main areas of concern: loss of reputation, unclear benefits, and limited access to student information. So, although MOOCs are widely believed to be able to enhance a university's position in the international arena, a risk of the opposite effect is significant. As explained by *I.4*:

> *'there is the opportunity for loss of reputation if the materials you've got are not of the appropriate standard, or if they're not produced to the appropriate standard. People have got very high expectations from watching the likes of the Open University and the BBC.'*

Perhaps what really exacerbates the issue of reputational threat is the fact that to *'maintain that [high] standard, you need a lot of infrastructure in order to do that properly'* (*I.4*). In effect, it appears that the university feared that long-term monetary costs of supporting high-quality MOOCs might be simply too high. Additionally, in true conservative adopter fashion, the interviewee voiced a strong opinion about the dubious nature of MOOC benefits for their university:

> *'The question is, if we were going to spend hundreds of thousands of pounds, what would you want me to give up from what we currently do in order to subsidise this MOOC activity, which doesn't bring any money, doesn't get anybody any degrees, it's got dubiety as far as a recruitment tool in that we are turning students away by the bucket load already?'*

Finally, *I.4* indicated that a MOOC platform's ownership of all student records without an individual university's access to student data from courses provided by other institutions is also a problem, as it deprives the university of both intellectual and financial value found *'in the totality of the information about who's signing up, [and] how many people are staying/not staying.'*

C. MOOC Monetisation

One key question is whether and how MOOCs can generate sufficient revenue streams. 'MOOC start-ups do not appear to have clear business models and are following the common approach of Silicon Valley start-ups by building fast and worrying about' money later [8]. The results of this study confirm institutional concerns about MOOCs' money-making capabilities, and indicate that movement into the MOOC domain may be happening too soon and too fast for some universities (see Figure 3).

Figure 3: A word cloud of the interviewees' responses to questions about MOOCs' business potential.

Current MOOC production is heavily subsidised by universities themselves, and some of them fear that this investment may eventually turn out to be too much of a burden unless a viable monetization strategy is devised to at least offset the operational costs:

> *'We've delved into this environment of the MOOC and we really don't know if it's a financially viable prospect down the road. I think the jury may still be out […]. But I'm very concerned – what is the business model that we need to look at?' (I.8).*

At the same time, however, *I.8's* statement demonstrates that the hope of making money from MOOCs is still alive.

In fact, it appears that MOOCs continue to be considered as *'an experimental approach to education'* (*I.9*), the proper workings of which are still being figured out. As a result, although current financial prospects look bleak, some interviewees believed that there simply must be a way of monetising the unprecedentedly high numbers of students enrolling for MOOCs. For example, *I.9* stated that *'when you have 200,000 eyeballs looking at something, it seems that it has possibilities of being monetised.'* The interviewees identified a range of potential monetisation strategies, for example, advertising, certification and publishing fees, proctored exams, corporate training. Importantly, they broadly agreed that the general idea behind MOOC money making should be that of a supermarket:

> *'It's unlike the university model which is a relatively small number of people [purchasing services] at a very high price, this is a supermarket model which is large numbers of people [purchasing services] at a low price' (I.2).*

Superficially, the supermarket approach looks very promising. If a course attracts 100,000 enrolees, each of whom pays, say, £20 for a certificate of completion, then it is theoretically possible to take in an impressive £2 million in revenue for diplomas alone. But problems emerge when we factor in the extremely high MOOC dropout rates which usually leave fewer than 10% of the initial enrolees at the end of the course. How many of them will actually want to pay for a certificate? The bottom line is that the added-value services, which currently bring in the biggest chunk of revenue, do not attract as mass an audience (by MOOCs' standards) as initially expected and hence the supermarket model of mass sales at low prices may not be applicable.

D. MOOC Pedagogy

On their website, Coursera states that 'the design of [their] platform is based on 'proven teaching methods verified by top researchers'. However, MOOC commentators are overwhelmingly critical of the behaviourist design behind xMOOCs. As noted in [28], MOOC pedagogy is limited to video-watching, testing knowledge via 'multiple choice or a single number' questions, an automatically-calculated grade, and 'little guidance […] concerning where the student went wrong in case of error.' Such a sceptical attitude towards the educational value of MOOCs was widely reflected in the interviews conducted here. The interviewees agreed that MOOCs' pedagogy not only lacks in innovation, but it even symbolises a regression in instructional design. As explained by *I.10*, MOOC pedagogy is *'taking education back a couple of decades'*, because it does not allow for the development of discourse, i.e.

> *'being able to take a concept and play with it and apply it in a meaningful way….With MOOCs, when you're just listening to lectures and taking multiple-choice tests, really the only thing that you are testing for is declarative forms of knowledge – and that's kind of at a very shallow end' (I.10).*

Educators can perceive MOOCs as providing *'a diminished educational experience compared to face-to-face experience'* (*I.1*). The MOOC aspects that they find particularly problematic include: lack of tutor engagement and support due to huge numbers of participants, limited feedback, *'trivialisation of advanced courses'* through the multiple-choice assessment format (*I.1*), lack of practical experience and critical thinking, inconsistent and unqualified peer review, and limited student interaction. One interviewee speculated that this long list of pedagogical drawbacks may be one of the most significant reasons for the overwhelmingly high MOOC drop-out rates, as the current pedagogical model *'doesn't capture people, it doesn't keep them engaged'* (*I.8*). If this is the case, then perhaps improving the pedagogical design of MOOCs would motivate more people to participate and complete courses, which could potentially boost the viability of the supermarket approach to MOOC monetisation strategies. However, some of the interviewees with MOOC experience stressed that the currently limited pedagogy is only a teething problem – once the phenomenon is better researched and understood, pedagogy itself will gradually evolve and improve:

> *'It isn't that the format limits them [a MOOC platform], it's that their knowledge and understanding of how to do things, and actually the [short] time they've got, limits them to a degree. So we will see them evolving undoubtedly, to become more interactive and complex' (I.2).*

E. MOOCs and the Traditional University

The results presented so far show that the current institutional scepticism about MOOCs' business models and pedagogy is accompanied by a belief in the future evolution and refinement in those areas. All interviewees were adamant, however, that MOOCs will not threaten the existence of bricks-and-mortar research institutions. As *I.10* put it, '*a lot of that [hype surrounding MOOCs' threat to universities] has been blown out of proportion.'* First, the interviewees pointed to the resistant nature of education:

> *'Education is far more resistant than people think. University has been around since medieval times, schools have been around since the nineteenth century, and they have been resistant to a whole lot of changes' (I.6).*

Second, several interviewees expressed the opinion that university experience goes beyond studying a particular subject and hence cannot be emulated by MOOCs. Two indispensable and irreplaceable parts of obtaining HE on campus that will always be in demand among students are the unique atmosphere and the people one meets:

> *'What MIT education is actually about is going to MIT, having an MIT degree, and having spent four or five or*

six years with MIT people, building that network and acquiring that credential' (I.7).

It was mentioned, however, that MOOCs may threaten for-profit HE institutions, such as the University of Phoenix, which do not have as strong a reputation as their research-oriented counterparts:

'The universities which are most at risk are those universities which are profit-making universities […], where they are trying to sell courses, mostly distance-learning courses. They will be absolutely threatened by MOOCs, but why would you want a degree from the University of Phoenix when you can get a comparable one from Stanford or whatever?' (I.1).

The interviewees' responses suggest that 'it is a mistake to see MOOCs as an isolated issue' [8] that can potentially abolish the traditional university. On the contrary, it appears that MOOCs should be perceived as a phenomenon that will contribute to *changing* how campus teaching is done, in the same manner as earlier innovations such as the computer and the Internet have. In effect, MOOCs are not destructive for the future of the university, but they are not neutral either. Apart from potentially inspiring innovations in online degree delivery, they are seen as contributing to transforming the campus experience. The interviewees widely agreed with this claim, stating, for example, that improving MOOC technologies will result in the adoption of more blended-learning solutions to support campus teaching and introducing 'closed' MOOCs to facilitate traditional courses.

F. MOOCs and Public Access to Education

Since the advent of MOOCs, an Internet connection and a few mouse clicks are all it takes to access educational opportunities from leading experts at some of the world's best known universities. Unsurprisingly, MOOCs have stirred up a discussion about the democratising effect that they may be having on the public's access to higher education.

The interviewees generally agreed that MOOCs do open up the possibility of knowledge democratisation, but only if the democratisation process is equalled with accessibility to knowledge (*I.8*). They saw MOOCs' biggest merit in providing students with high-quality course content which is likely to be better-informed than what they are presented with at the schools they have attended. This being said, they agreed that the *true* democratising potential is hugely hampered by poor infrastructure, especially in developing countries: *'In many places in [the world], they don't even have an Internet connection. And so it doesn't help anybody without an Internet connection, at least not directly'* (*I.9*). Hence, institutions do realise that reaching out to audiences outside of Europe and North America is a difficult task: 'Many of the towns and almost all of the rural areas [in developing countries] will have hardly any significant infrastructure (often no, unreliable or part-time electricity supply for example, let alone Internet connectivity), which would typically make it difficult for participants to engage in a MOOC'). [29]

Another popular claim behind MOOCs' democratising effect in the literature is that 'with the broad use of MOOCs, not only will knowledge become available worldwide (democratisation of knowledge), [but] they (MOOCs) could enforce an unprecedented level of global sameness in higher education' [30]. However, contrary to this belief, *I.7* argued that MOOCs may have the opposite effect. In a hypothetically MOOC-dominated world, *'elite credentials are going to become more valuable than they were because we all know it's not about the knowledge'*; it is about prestige. Hence, while the elite will continue to study at elite universities, *'everyone else will become part of an even more homogenised, unsorted group of people.*' In effect, it could be speculated that while MOOCs could contribute broadly to lowering HE costs for online courses as well as opening doors for many more people to obtain online degrees (like Georgia Tech's MOOC format Masters course), this could lead to soaring prices for campus-based courses at universities determined to maintain their elite status. As summed up in [31], 'elite institutions with global brands […] will always have markets for people – domestically and abroad – willing to pay for the elite model of education taken for granted 10 or 20 years ago.'

VI. CONCLUSION

The results of the qualitative content analysis of interviews with educational professionals confirm some existing research on MOOCs and also extend it. HE institutions decide to provide MOOCs for a variety of reasons, yet the perceived value of MOOCs lies predominantly in their international reach which allows for enhanced university brand marketing. This finding has subsequently been supported by a more recent interview-based study [18]. In general, however, educators tend to be highly sceptical of MOOCs.

Reasons for a lack of MOOC provision in collaboration with a platform include the potential loss of reputation, unclear benefits for the university, and limited access to student information. Educators also have concerns about MOOCs' potential to bring in money, their pedagogical value and democratising effect. They are confident, though, that despite popular voices proclaiming the destructive effect of MOOCs on HE, MOOCs' disruptiveness will be limited to introducing more blended-learning technologies which will be used in on-campus courses.

In summary, to the extent that MOOCs are seen primarily as novel pedagogical component that can be used freely in both distance and blended learning environments they can be seen as a relatively non-disruptive stage in the evolution of web-based education [1].

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