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Dropout: MOOC Participants' Perspective

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Abstract: *Massive Open Online Courses (MOOCs) open up learning opportunities to a large number of people. A small percentage (around 10%) of the large numbers of participants enrolling in MOOCs manage to finish the course by completing all parts. The term 'dropout' is commonly used to refer to 'all who failed to complete' a course, and is used in relation to MOOCs. Due to the nature of MOOCs, with students not paying enrolment and tuition fees, there is no direct financial cost incurred by a student. Therefore it is debatable whether the traditional definition of dropout in higher education could be directly applied to MOOCs. This paper reports ongoing exploratory work on MOOC participants' perspectives based on six qualitative interviews. The findings show that MOOC participants are challenging the widely held view of dropout, suggesting that it is more about failing to achieve their personal aims.*

Introduction

Massive Open Online Courses (MOOCs) have already attracted global interest within the few years since their first appearance in 2008. Daniel (2012) claimed that it was "the educational buzzword of 2012", while the New York Times named 2012 as "the year of the MOOC" (Pappano, 2012). There is an increasing interest in MOOCs, both from Universities and other providers. For example, as of September 09, 2013 there are 10 US State Institutes and 77 global partners working with Coursera (www.coursera.org), one of the leading MOOC providers. The UK's major MOOC platform FutureLearn (www.futurelearn.com) has offered courses from over 20 UK universities since autumn 2013.

Completers and 'dropouts'

A small percentage (generally around 10%) of the large numbers of participants enrolling in MOOCs manage to complete the course (Liyanagunawardena, Adams, & Williams, 2013). The two main pedagogical strands of MOOCs: cMOOCs and xMOOCs, have reported large 'dropout' rates compared to traditional courses. Meyer (2012) reported that MOOCs offered by Stanford, Massachusetts Institute of Technology and University of California Berkley had experienced dropout rates as high as 80-95% (Yuan, & Powell 2013). For example, out of the 50,000 students who took the Software Engineering course offered by University of California Berkeley on the Coursera platform, only 7% completed (Yuan, & Powell 2013). According to Jordan's (2013) collated completion rates for 48 MOOCs (as of August 27, 2013), the highest completion rate achieved was 50.7% in MoocGdP#1 by École Centrale de Lille on the Canvas Network (www.canvas.net) MOOC platform. eLearning courses in general, not only MOOCs, are reported to have higher dropout rates compared to on-campus courses (Levy, 2007) but it is worthwhile noting that these are not like-for-like comparisons (Balch, 2013). Considering the number of students in UK higher education who leave after one year of study: full time 7.4%; part time 35.1% and open universities 44.7%, Tait (Commonwealth of Learning, 2013) suggests that it could be qualification-related. For example 45% of Open University students in the UK have one A Level qualification or less and the open universities admit mature students, students with lower qualifications, and students from rural areas. Therefore he argues that dropouts "represent risks and challenges of openness and inclusion".

There is a debate whether dropout rates and progression should be causes of concern in MOOCs (Gee 2012; Yuan, & Powell 2013). In a traditional university when a student fails to complete a course that they have enrolled in, paying high fees, it is bad for all parties involved: the student (possibly even affecting their families), the lecturers and the university. For example, the Higher Education Funding Council for England keeps a close eye on the number of full-time PhD students completing within the allowed 4 years as a benchmark (HEFCE, 2013) and a student failing to do so may reflect adversely on the university's research profile.

Yuan, & Powell (2013) argue that whether these rates matter depends on the perceived purpose. They go on to say that if the main aim of offering a MOOC is to provide the opportunity to learn from high-quality courses (offered by world class universities and world experts of subjects) without incurring a charge, these rates should not be of primary concern. MOOCs inevitably attract many more enrolments than those that would have been on a fee-paying course because it is easy and free to register on a MOOC; sometimes it may be all too easy and by a student may register for a course by accident; there may not be an un-enrol button (author's personal experience). Some participants who enrol on a MOOC may never return.

Defining dropout

Tinto (1975) argues that inadequate attention given to defining dropout in higher education has led researchers "to lump together, under the rubric of dropout, forms of leaving behaviour that are very different in character" (p89). He claims that research on dropout has failed to distinguish between various forms, for example dropout resulting from academic failure and voluntary withdrawal. This often seems to be the case with MOOCs; it is not clear what dropout means apart from 'all who failed to complete'. MOOC participants could have joined the course to follow a specific topic and completion of this may have triggered them to voluntarily withdraw from the course. Categorising these participants as dropouts in MOOCs may give rise to misleading implications.

There is also a concern whether the traditional definition of dropout could be directly applied to MOOCs (Liyanagunawardena, 2013). For example, paying enrolment and tuition fees in a traditional course makes a student commit themselves to participating in the programme. In a MOOC on the other hand, because both registration and enrolment are free, there is no binding commitment from a student. A definition used in distance education and/or eLearning could be a better candidate for defining dropout in a MOOC. In the context of eLearning, Levy (2007) defines "dropout students (or non-completers) as students that voluntarily withdraw from e-learning courses while acquiring financial penalties" (p.188) for his study. However, application of this definition to MOOCs is hindered by the use of financial penalties in the definition, because MOOCs generally do not require an upfront payment from registrants. Unlike most traditional courses and/or eLearning courses that freeze registration at the start of the course, MOOCs generally allow registration while the course is being offered (1). Effectively, then, a learner can join a MOOC that was running on the final week, which would still count as a registration, but this may not provide sufficient time for completion. There is also the possibility that some learners may enrol on a course to follow only a specific topic of their interest. Some participants may enrol to 'audit' MOOCs (Chung, 2013) while others may be 'lurkers', 'drop-ins', active or passive participants (Hill, 2013). Koller, et. al. (2013) show that "the ease of non-completion in MOOCs can be viewed as an opportunity for risk-free exploration", a similar analogy would be a free taster or test drive. This makes it difficult to measure the dropout rate in a MOOC by only considering the enrolled number and 'completed' number.

Furthermore, Koller et. al. (2013) show that in general a typical Coursera MOOC (in 2012) attracted 40,000 to 60,000 enrolments but only 50-60% of these students actually returned for the first lecture. Out of these huge enrolment numbers only about 5% of students earned an official statement of accomplishment. In contrast out of the students who registered for 'Signature Track' scheme, paying US$30-100, with the intention of obtaining an identity verified and university-branded certification, the completion rates are much higher. This seems to suggest that learners' intention for the course, for example whether to use it as a taster class, drop-in and drop-out for interesting topics, or to earn a verified certification has had a profound effect on their 'engagement' in the course (2).

Due to the nature of MOOCs discussed above, it is reasonable to question whether defining 'completion', 'dropout' and 'success' in a similar way to their equivalent in the traditional measurement or in fact eLearning counterpart is acceptable or appropriate. In fact, Koller, et. al. (2013) show that "retention in MOOCs should be evaluated within the context of learner intent" (p62). However, the word 'dropout' seems to be used very loosely when referring to MOOCs.

In the realm of MOOCs, theorising about dropout processes can only be possible once a proper definition for the term is identified and accepted among scholars. The researchers believe that in identifying the meaning of dropout in the context of a MOOC, it is important to understand the participants' perspective because of the voluntary nature of participation. However there has been no research to date exploring MOOC participants' views on what success, completion and dropout mean to them in the context of a MOOC. This paper presents an overview of an ongoing research project exploring MOOC participants' perspectives on the issue of dropout. The research team hopes to develop this exploratory view to understand the true nature of a MOOC dropout.

Research Methodology

This qualitative research project is investigating MOOC participants' perspectives using an ethnographic approach, where researchers themselves are MOOC participants and they are exploring other MOOC participants' perspectives on 'dropout', 'completion' and 'success.' Semi-structured interviews are used as the data collection instruments in this research. Structured interviews pose a pre-established set of questions in a sequence allowing little or no variation, expecting the interviewer to be neutral. In contrast, semi-structured interviews, which are guided by a set of questions but nevertheless place much interest on the participants' views and where the overall direction of the interviews is influenced by the interviewees' responses, was favoured in this research because of the constructivist standpoint of the researchers. Each face-to-face interview (30-35 minutes) was audio recorded with permission and later transcribed in full. The interview transcription was shared with the participant via email where clarifications were required. This respondent verification is hoped to have increased the quality of data used in the analysis.

This paper presents some initial findings of an ongoing research and this paper focuses on participants' perspectives of 'dropout' in a MOOC.

Population

The population for the research is MOOC participants, who have registered and/or participated in one or more MOOCs.

Sample

In order to scope the project, it was planned over several phases. The first phase was to explore MOOC participant views among the staff at the University of Reading. Thus the research team initially advertised the project via email within the University of Reading and recruited participants who replied to this invitation. However, due to participants' enthusiasm to voice their views, some of them had passed on our invitation to their former colleagues and family, creating a snowball effect. In general qualitative research projects use purposive (non-random) sampling and this project also adhered to this. The initial phase employed face-to-face interviews and email interviews with participants who volunteered to participate in the research project. The interview extracts presented here are anonymous.

Research Ethics

This project has been subject to ethical review according to the procedures specified by the University Research Ethics Committee, and given a favourable ethical opinion. Each participant was provided with an information sheet and a consent form to be completed prior to being interviewed. When interviews were conducted via email, the participant was sent the information sheet and consent form to be completed and returned (via email). A raffle draw, which offered a book voucher worth £25 was advertised in the information sheet. The winner would be drawn from the names of interview participants who wished to enter the draw. This incentive was offered to show the recipients that their time and participation was valued. At the same time, a raffle draw was decided to avoid anyone participating in the research solely to claim the incentive.

Data Presentation and Analysis

Three interview transcripts were chosen at random and were independently analysed by the first and second authors for themes. The identified themes were then noted and clarified for consistency in coding. The remaining transcripts were coded according to the initially identified themes and were checked for consistency by all authors. New themes were also considered. NVivo 10 and MS Excel 2007 software tools were used for the analysis.

Participant Demographics

This paper presents some initial findings from a sub-sample of six interviews with MOOC participants, four females and two males, conducted in August-September 2013. These include four face-to-face interviews and two email interviews. Email interviews were conducted with two participants: one participant at the time was working on an overseas project while the other participant was working in a different campus and preferred email communication to a telephone interview. At the time of interviewing the six participants have registered in 27 MOOCs and have participated in 21 MOOCs among themselves. The number of MOOCs registered in ranged one to seven and the number of MOOCs participated in ranged one to six among the interviewees with an average of 4.5 and 3.5 respectively. The educational qualifications of the participants varied from PhD (1), Masters (2), Undergraduate (2) to Certificate in Higher Education (1). Participants' age ranged from 36-55 with an average of 46.7 years. A recent pre-course survey for the 'Begin Programming: Build Your First Mobile Game' course (offered by University of Reading through the FutureLearn platform) showed that 35-55 year olds represented 45% of several thousand respondents thus suggesting that the sample is representative of MOOC learners. Equivalent statistics from other MOOCs have not been widely reported, and the organisations which run the platforms restrict access to their demographic information.

Dropout in a MOOC

When asked who they would call a dropout in a MOOC, participants had various responses. However, despite this initial response of a dropout, they later clarified their views further, which drew interesting perspectives.

Initial Responses

"Someone who doesn't make it all the way through to the end" (Ann, 42).

"Not starting. Giving up on week one…" (Joyce, 53).

"Not completing" (PM3, 47).

"If you are not still watching the lectures or doing the activities when the last week comes along" (RM, 55).

"Time invested is not worth the learning accrued" (Roy, 47).

"Registering then not starting… mmm, also starting and not finishing." (Terry, 36).

Not completing

One participant held a view similar to Levi (2007) where she identified a dropout as "not starting or giving up in week one". Observing the initial responses it can be seen that most participants seemed to consider someone 'not starting' and/or 'not finishing/completing' as a dropout.

In most writings dropout seem to refer to all who failed to finish the course. This view was mentioned by study participants, perhaps influenced by the media attention given to the dropout in MOOCs. However, in clarifying their views of a dropout interesting dimensions emerged – there was an apparent desire on the part of the interviewees to challenge this view and express alternatives.

Continued effort

If a MOOC participant was still working through the course but fails to finish at the time course concludes, this participant was not categorised as a dropout. For example:

"People have joined throughout and have been quite frustrated that they haven't been able to do the assignments for week one because they joined in week seven or so, and I wouldn't consider them dropouts because they haven't completed the assignments. But the fact that they're there working, through the lectures I think, means that they haven't dropped out. Just because they haven't necessarily watched all of the lectures or completed any of the assignments doesn't mean they've dropped out. […] you still are working on that subject, so, and still participating in that way, so, yes you're not a dropout" (Ann, 42).

and similarly:

"I think [dropout is] if you are not still watching the lectures or doing the activities when the last week comes along. So you might be behind and so… but you haven't dropped out you are trying to keep going till the end in the allocated time period. I don't think that if you don't do the quizzes you have dropped out or if you haven't watched all the lectures you are dropped out. It is really a time thing. […] You may still drop out before you finish watching all the lectures. But that may be because that is no longer available. That is because it is taken away from you. But if it is still there, and you intend to go back to them, then you have not dropped out" (RM, 55).

Both these participants' view is that if one is continuing or has the intention to go back to the resources they are not dropouts. The fact that MOOCs are open to be enrolled at anytime even after they are started could leave someone enrolling in the program after the offering began unable to complete all activities. These ideas suggest that timing is a crucial factor because they concentrate on the course ending point to determine whether a participant is a dropout or not. The view also suggests that the status of dropout is

a matter of choice, an intention to stop participating, which will be revisited in the analysis.

Learning something new/useful

Another point of view is that as long as a MOOC participant was able to learn something from the MOOC, reflect upon it and bring a closure to the learning, the participant is not a dropout. This takes into account the fact that there are many who dip in and out to learn specific topics who are not necessarily interested in the whole offering. For example:

"I think you can finish your engagement with the MOOC before it ends without dropping out from it if you are able to learn something from it reflect on that and you know turn it in your own terms into a neat package something that you have done and finished and that you don't need to worry about. […] As long as you can get a closure from it you have not dropped out from it as such" – (PM3, 47).

This was further supported by another participant (Roy, 47) who described dropout as:

"People are making their own life choices. Dropout = time invested is not worth the learning accrued. In comparison the engagement contract with a MOOC is totally different. It's free I can dip in and out. I hurt no-one by dropping out. I can drop in anytime. This makes another sort of engagement contract. I therefore suspect relative to traditional learning the dropout rate is higher (it is easier to flirt with a MOOC or try and buy if you will), but that a higher proportion of people join to start".

Thus the timing of a dropout becomes unimportant while learning something new and/or useful takes prominence. Dropping out due to peoples' life choices was brought up by another participant:

"Registering then not starting… hmm, also, starting and not finishing. But that might also, that is personal, because it might be that person has got what they wanted from that MOOC, so that isn't a drop out at all, it's just what they wanted – they've got, they don't feel they need to go any further – so I don't feel that's a drop out, it's just a personal choice. So it depends whose perspective you are looking at, whether it's the person who's created the course or the person who's doing it" (Terry, 36).

These perspectives of a dropout show that despite initial view of a 'dropout' as someone who failed to complete a course, participants are aware of the nature of MOOCs. Comparing this with the traditional measure of dropout is contentious.

Discussion

At this early stage of enquiry it can be seen that despite the media attention given to the number of participants

registering in a MOOC versus the number of participants who complete all activities and/or assignments as dropouts, people who engage in MOOCs do consider that this crude classification is not fit for purpose. In fact they challenge the definition (if there is one) generally used for dropouts. This small study suggests the need to look at dropouts in a new perspective considering situational factors of participants such as when they have joined the course and their intentions for the course. This supports the arguments put forward by Koller, et. al. (2013).

The free voluntary participation of a course allows participants to visit the MOOC for topics of their interest. This gives them the chance to learn something new and/or useful rather than being tied in for topics that they already know. It also allows them to have a taste of the subject without committing to it. As can be seen in one of the quotes a participant suggests that given the voluntary nature of the engagement it is likely to see more dropouts in MOOCs. This is an important point that seems to be overlooked in comparing MOOCs to other courses not comparing like with like.

Limitations

This paper presents work in progress and the small sample described here is not a random selection. Participants in the sample were highly educated. However, according to the findings of Christensen, et. al. (2013), 79.4% of the respondents (out of 34,779) who participated in University of Pennsylvania's Coursera courses have a Bachelor's degree or higher level of education, suggesting that many MOOC participants are highly educated. The sample for this research was drawn by publicising the research in a UK Research University, thus the findings here cannot be applied to the general population. However, they do provide interesting avenues to explore in better understanding MOOCs dropouts.

Future Work

It would be interesting to know, for instance, whether people from other educational sectors and the general public would have the same broad ideas about what con-

stitutes being a 'dropout'. Does the media coverage of the alleged high rate of 'dropouts' impact on individuals' choices about joining a MOOC? Is it possible to identify those who achieve their goals versus those who 'drop out', and can this influence support mechanisms to help people get the most out of the courses that they choose?

The research team has developed a questionnaire using the insight of participants' perspective into MOOCs and this is currently open for anyone who has participated in MOOC(s) to take part. Focus groups are planned with a variety of groups including school pupils (16-18 year olds) known to have taken a MOOC.

Conclusion

The word 'dropout' seem to have been used (misused?) to refer to 'all who failed to complete' a MOOC. At this early stage of exploration it is evident that MOOC participants are challenging this widely held view of 'dropout' suggesting their alternatives. From current evidence, it can be seen that for MOOC participants, 'dropout' means achieving their aims (or not) in a course rather than finishing the course by completing all parts. This alternative view of 'dropout' among MOOC participants raises further questions for exploration. What do 'success' and 'completion' mean to MOOC participants? Are they applied the same way as in traditional higher education or are they different? The authors believe this work will pave the way to helping define these terms for use in the MOOC context.

Notes

(1) Some MOOCs close registration to participants who wish to obtain verified certificates once they have started. For example, Social Network Analysis course offered by University of Michigan through Coursera closes registration for Signature Track option after three weeks, allowing MOOC participants to receive a verified certificate jointly issued by Coursera and the partner university offering the course.

(2) Engagement is used here in the sense of time-served, with a focus on completion.

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