Creating, Completing and Critiquing Our First MOOC

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ABSTRACT

MOOCs allow anyone, anywhere, to access high quality learning materials via online platforms. With a rise in online learning, and a growing recognition of how this can support continuing professional development in the education sector, in 2016, the GDST (The Girls' Day School Trust) became the first non-university education organisation in the UK to partner with the MOOC platform FutureLearn and launched its first course. This research paper outlines the history of MOOCS, how the GDST MOOC fits into this landscape, and how and why we created it. This paper will then go on to explore the challenges and opportunities of running an online course, before looking at how we are evaluating the first-run using qualitative and quantitative data.

Keywords: **MOOC, Online Learning, Girl-Friendly Pedagogies, Continuing Professional Development, Teaching Strategies**

INTRODUCTION

Creating MOOCs is a particularly appropriate topic for a conference with the theme 'learning without borders.' MOOCs allow anyone, anywhere, to access high quality learning materials via online platforms, and are an important tool in the democratisation of learning, and a way of exploiting our increasingly connected societies. With a rise in online learning, and a growing recognition of how this can support continuing professional development in the education sector, in 2016, the GDST partnered with FutureLearn and launched its first MOOC. In order to contextualise this discussion, readers may find it helpful to know about the two key organisations involved in this project. Firstly, the GDST (The Girls' Day School Trust) is a network of 24 all-through independent girls' schools and 2 academies throughout England and Wales. Secondly, FutureLearn, our MOOC partner, was founded by The Open University in 2012 and is a leading UK- based social learning platform, enabling online learning through conversation.

The aim of this paper is to contextualise the role MOOCs play in continuing professional development in the education sector, and more specifically, how the GDST's MOOC fits into this landscape. It also narrates our personal journey of creating a MOOC, offering practical insights and presents the findings of our evaluation of the first-run of our course. This MOOC ran for the first time from 21st November 2016 for four weeks and attracted over 8,000 joiners.

MAPPING THE MOOC LANDSCAPE

The term MOOC was coined by Dave Cormier of the University of Prince Edward Island in relation to a course called *Connectivism and Connective Knowledge,* which is widely regarded as the first true MOOC (Cormier, 2008). As this example illustrates, initially MOOCs provided online education in the areas of science and technology-based subjects, and were primarily aimed at Higher Education students, with universities writing content and running courses.

From 2008-2012, the format steadily grew in popularity and according to *The New York Times* 2012 was, 'the year of the MOOC', as top universities began to engage with the format and well-known providers such as Coursera and edX began to emerge (Pappona, 2012). This emergence of MOOCs coincided with a general growth in online learning and greater exploration of techniques such as blended learning, self-paced courses and flipped learning. This combination of interest in, enthusiasm for, and technical expertise with, digital learning, led to what Moody's predicted would be a 'pivotal development' and a 'significant image upgrade for online education' (Moody's Investor Service, 2012).

Recognising this hype and these high expectations for MOOCs, in June 2013, an article in CILIP's (Chartered Institute of Library and Information Professionals) *Update* magazine asked the

question, 'Will Moocs change the world?' (Steel, 2013). The motivation behind the article was the recognition that MOOCs were becoming an increasingly 'important topic in academic circles' and 'growing in momentum in the UK.' This article mirrors the then current day anxieties in the Higher Education sector, that was, that traditional university education could be 'replaced' by online learning environments, thus leading to major upheaval and radical educational change in the UK. Steel approaches the subject in a fairly 'black and white' way, an 'either, or' dichotomy being established between traditional university campus style learning and online learning. Her closing remark flies the flag for the university system as she concludes, 'the benefits of a traditional university campus are too many to be dismissed' (Steel, 2013, p.39). Since the writing of that article, traditional face-to-face learning continues to be championed in the UK Higher Education sector, but the first accredited MOOCs (announced in May 2016 in the UK) have heralded a new phase in online learning which further erodes strict boundaries between traditional and digital delivery of content (Weale, 2016).

Turning more specifically to look at the UK MOOC market, some of our leading universities have been hesitant to join the growing online learning community. It was not until the end of 2016, that Oxford University announced that it would launch its first MOOC on the American owned edX platform, with their first course running in February 2017. Despite being relatively late to offer MOOCs, their motivations for doing so echo those of early adopters, with those involved with the project recognising the course is an 'effective way to expand access to knowledge beyond the classrooms of Oxford', which will help people 'understand how their community and country can flourish wherever they are in the world' (Elmes, 2016).

It was into this diverse and flourishing landscape, that FutureLearn emerged in 2012. With over 6 million people from over 230 countries across the globe – a community that is continuously growing – FutureLearn offers free and paid for online courses from world-leading UK and international universities, as well as organisations such as the European Space Agency, the British Council and Cancer Research UK. FutureLearn's course portfolio covers a wealth of areas to promote lifelong learning for a range of applications, including general interest, an introduction to university studies, continuing professional development and fully online postgraduate degrees.

But how does all of this translate when you look more particularly at MOOC use in the education sector and the secondary school market? At school level, there have long been evangelists and sceptics of online learning programmes and the perceived opportunities and challenges this brings. In the UK, schools continue to experiment with the ideas of flipped learning and blended learning, but as the assessment system is still largely a paper-based one, secondary schools in particular, can be hesitant to fully embrace online learning. When you add into the mix concerns over children's screen time, pastoral concerns on issues such as cyberbullying and sexting, it becomes clear that the school sector still has some way to go to embrace the idea that a teacher should be more of a 'guide on the side' than a 'sage on the stage.'

However, there are several local-level initiatives which encourage students, in particular sixth formers, to engage with MOOCs, especially as a way to prepare for university and broaden their knowledge of non A-level subjects. One of our GDST schools, Croydon High School, based in south-east London, launched a 'Twilight School' in 2015 where students were encouraged to participate in a MOOC which would broaden their understanding of a topic, or give them a 'taster' of a subject they wanted to study at university. These sorts of initiatives show the value that MOOCs can add to the traditional curriculum delivered through structured contact time, and that with the right support, can encourage students to be more independent, intellectually curious and academically diverse.

But what about for teachers? How far does the education community engage with online learning for professional development? Much teacher CPD is still delivered face-to-face in a series of INSET (IN-SErvice Training) days throughout the school year. However, this can be easily supplemented through online courses and less formal online CPD channels, such as through Twitter chats, support on forums, such as those on the TES (Times Educational Supplement) website and practitioner created videos on platforms such as YouTube. At the GDST, we offer webinars to support online CPD and provide access

to platforms such as Lynda, an online subscription service which, offers thousands of video courses in software, creative, and business skills.

At a time of significant pressure on education funding and teacher time, it is unsurprising that both schools and providers are exploring options to deliver cost-effective, relevant CPD to their staff, and therefore increasingly turning to online solutions. With this growing need, teacher CPD and professional development has been identified as a possible 'high potential area' for FutureLearn in their Content Strategy (FutureLearn, 2016). At their Partners Forum in January 2017, FutureLearn expressed an interest in developing more education focused content, alongside their already sizeable and diverse portfolio of teaching related courses. With pressure on schools to provide high-impact and low-cost CPD opportunities, and with 20% of FutureLearn learners citing teaching as their area of employment (FutureLearn, 2017), the GDST began to see the potential of creating MOOCs in this area and the opportunities that working with a MOOC provider, such as FutureLearn, can provide.

GDST'S MOOC: PLANNING AND CREATING CONTENT

As a leading player in the field of girls' education, the GDST decided to create its first MOOC on the topic of, 'Girls' Education: Teaching Strategies That Develop Confidence, Resilience and Collaboration.' We have long been conducting research in this area, and in 2016 commissioned a piece of research led by Mike Younger at the Faculty of Education at the University of Cambridge on 'Effective pedagogies for girls' learning'. The thinking behind, and the findings of this research, contributed to the content of the MOOC and a copy of the research report was linked within the course, as additional reading, for those who wanted to find out more.

Drawing on this wealth of experience and expertise, the course was created by Cathy Walter, our Assistant Director of Education at the GDST and John West Burnham, from Queen Mary University. Learners on the course were invited to explore some of the key themes arising from the research in the area of girl-friendly learning, and engage in a dialogue with people all over the world about the effective teaching of girls to support them in the classroom and beyond. During the four week course, participants reflected on and discussed four pedagogical principals in relation to girls' learning: collaboration, confidence and challenge, talk for learning, and partnerships.

From the start, we set out our organisational aims and motivations for creating and running our MOOC, and we revisited these as we planned our content to ensure they were being fully met. The aims we identified, in our initial planning stages, were

1. Teachers and education professionals already form a large proportion of MOOC participants, and find it a valuable way of engaging in tailored, on-demand CPD. Our MOOC will add a valuable and different contribution to this growing online portfolio of CPD opportunities.
2. Delivering CPD on an open platform gives us the opportunity to share our training courses, knowledge and research with the wider education community across the globe, including in developing countries.
3. Engaging a wide audience of teachers allows participants to benefit from working with a wider learning community, gaining a huge amount from the experiences of teachers in varied contexts and countries.
4. Delivering CPD in an online form gives teachers a chance to experience, as learners, online learning models, thus informing their own practice in designing and delivering online learning for students.
5. The experience of developing and facilitating a MOOC is a valuable learning experience in itself for lead educators, and leads to the development of a huge range of learning materials that could be used effectively in other contexts.
6. As an innovative organisation, we are keen to explore and evaluate the potential of new models of teacher CPD and engage in opportunities for research in this area.

With these aims in mind, we began creating content using FutureLearn's course creation platform, the 'back end' of the interface through which users interact. The platform is intuitive, decluttered and exploits the social aspect of learning, so encourages course creators to use a range of

formats in their MOOC, such as videos, discussion boards, blogs, study groups, quizzes and peer assessments and we built many of these features into our own course.

Alongside the platform, FutureLearn curate a Partners Site which contains lots of information and advice on all aspects of creating, running and evaluating your MOOC. As we consulted the course creation part of the site, we looked at the visualisation of the course creation process which FutureLearn split into five distinct blocks: plan, design, build, run and review. Whilst this linear approach helped us segment the process, in reality, our approach was somewhat less linear and at each stage, we built in plenty of time for review which we would recommend others also do. As part of this ongoing review process, before the course went through a final Quality Assurance with FutureLearn, we invited teachers from across the GDST to review the course. Some feedback from colleagues is included below to show how we structured the course in order for it to be as user-friendly as possible,

"I loved the last few sections of the course - leaving the participant wanting more and feeling inspired to improve their practice." *Ellen Hill, Primary Consultant, GDST.*

And

"the range of voices involved in week 3, as well as across the whole course gave it a really collaborative feel. I feel proud to have been part of it." *Marelle Rice, P4C Co-ordinator and Head of Religion, Philosophy and Ethics, Northwood College for Girls – GDST*

The comments illustrate the importance of careful planning and structuring, which reflects understanding how the course progresses and how each part complements the others. One particularly popular aspect of our course was the access to authentic learning experiences, which we included by using lesson footage from schools from across the GDST. We also ensured that we included pieces to camera from students, reflecting upon their own experiences, to emphasise the importance of student voice, and once again to add validity and authenticity to the content of the course.

Creating, editing and reviewing content was a real team-effort, and required a diverse and varied skill set that went beyond the confines of our own Innovation and Learning team's specialisms. From the outset, working out your team, the strengths you have within it, and how these will be important throughout your MOOC journey, is just as pivotal as creating the content for your course.

Given the audience at this conference, I feel here it would be helpful to pause and consider what role librarians can play in MOOC production and what skills they can bring to the process. In an article written in 2013, Forrest Wright considered what librarians should know about MOOCs, and predicted that this form of online learning was 'here to stay' and that it represented a 'new challenge in the shifting relationship between library services and online learning' especially in the Higher Education sector. Building on some of his ideas, I would suggest librarians could add-value to the production of a MOOC in four key areas, each of which is discussed below.

1. Access to resources

This is a fundamental aspect of a librarian's day-to-day work and they are familiar with matching the right resources with the particular needs of a user in both a physical and online environment. The ability to scan, sort and summarise large quantities of information quickly could be instrumental when deciding the course structure and matching resources to each step or activity within the MOOC. Their ability to view information through a critical lens could also help colleagues select appropriate resources to support their courses objectives.

2. Copyright and rights management

The scale of MOOC learning means that it can be particularly challenging to provide access to information in a meaningful way, especially information that sits behind a firewall and is therefore subject to a range of licensing agreements and terms and conditions. With the building and curation of online libraries, librarians are well placed to be able to advise on what processes might need to be followed in order to use licensed material, and to make the most of material released under Creative Commons licensing.

3. Structuring information

One of the key aspects to creating successful MOOC courses is the way the content hangs together, and the scaffolding that is in place, in order to give the course a coherent structure. FutureLearn's platform, composed of weeks, activities and steps, gives the course a logical structure, but within this framework, there is plenty of scope for Partners to create their own course development and line of reasoning. Throughout this process, creators ask which parts of a course logically follow on from the next, what concepts do learners need to know before moving onto the next step, and how does each step build upon and complement other course content? So just as many school librarians have an active role in managing their school's virtual learning environment, as they often have strong information architecture and classification skills, so too with a MOOC, a librarian could add value to the way information is organised and accessed on a MOOC platform.

4. Making information and courses discoverable

FutureLearn does much of this work for Partners and your marketing teams will probably also be involved, but it's worth bearing in mind that a librarians' knowledge of ontologies, theasuri, resource description and metadata could all help with making a course more discoverable.

GDST'S MOOC: RUNNING THE COURSE

The course ran for four weeks, from 21 November 2016, with our first joiners signing up in mid-September. Our audience numbers for the first run of the course are outlined in the table below. As you can see, there is a significant difference between the number of people who join (sign-up for) the course, and the number who actually engage with content, and then a significantly smaller proportion of learners who go on to complete the course.

	No. of learners	Percentages
Joiners	8392	100.00%
Active learners	2790	33.25%
Social learners	1315	47.13%
Fully participating learners	649	23.26%
Fully completing learners	476	17.06%

Girls' Education first run, number of learners

At first glance, these numbers can be disappointing. Our number of joiners and active learners are higher than average for MOOC participation rates when compared to other teaching MOOCs offered on the FutureLearn platform. However, other comparable courses enjoyed slightly higher percentages of participating learners (30% compared to our 23%) and completing learners (22% to out 17%). Looking at the demographic information, learners joined the course from all over the world, although unsurprisingly given the content matter, we had a higher than average UK uptake with around 40% of learners coming from the UK compared with a FutureLearn average of 23%.

Throughout the course, teachers at our schools and colleagues from Trust Office (assigned the role of mentors) facilitated the discussion, commenting on users' contributions and steering conversations to ensure they were relevant and timely. Facilitating a course for the first run was quite time intensive as mentors had to scroll through comments, and the interface could at times be difficult to navigate. A welcome addition for our next run of the course is a new feature on the FutureLearn platform called the 'Facilitation Dashboard' (March 2017). This is designed to make course facilitation more targeted and efficient, for example being more easily able to identify steps with fewer comments than you might expect, or steps which learners are finding difficult, so you can provide additional support, as well as identifying users who are particularly active and influential.

At the end of the course learners are invited to complete a post-course questionnaire, but as is often the case with evaluative surveys, we had a low response rate with only 120, at least partially completed responses. In contrast, 869 participants contributed (at least in part) to the pre-course survey. The survey questions collect a mix of qualitative and quantitative information, which we will now explore in the following section as we consider lessons learned and next steps.

EVALUATING

As already mentioned, throughout our FutureLearn journey, we have had several opportunities for review and evaluation. This is an integral part of the process and FutureLearn provide a wealth of data which is accessible by administrators of any course to help support your review process. Two key areas that we have looked at in our evaluation have been how far our course matched motivations and experiences of our learners, and secondly, how we can improve user engagement and retention. The final part of this section revisits the aims we set out at the start of the process and our thoughts on how far these have been met.

1. Motivations and expectations of learners

From writing the initial course description, which is the shop-window to your course, we realised that we needed to be aware of learners' motivations and expectations and this influenced the way we pitched the course. Gender in education, female representation in the workplace and gender equality are huge topics, and ones that can be approached from a variety of angles. We wanted to ensure learners knew we were using our skills and expertise to talk about girl-friendly pedagogies and bringing experiences from the UK education sector to the course. Once the course went live for enrolment and learners began to introduce themselves and share their hopes for the course, it was clear that we were attracting a diverse audience, including a head teacher of a girls' school in the Punjab and a Nigerian teacher who spoke about the cultural expectation that boys will learn a trade, yet girls are expected to cook and clean.

In one way MOOCs can try to be 'all things to all people', they are openly available and learners can take the course at their own pace (within the parameters of the course structure). However, we quickly realised MOOCs need to be specific enough to be relevant to their audience, and structured enough for the content to be easy to follow in discreet stand-alone units. It also became clear as the course progressed, that the audience was self-selecting and decided whether they thought the course was matching their needs appropriately. After speaking to our Partnership Manager, who allayed our fears about this, we would encourage new Partners not to worry too much about the breadth and variety of learners joining your course.

At the end of the course, participants were once again invited to comment on their learning journey. Our audience included parents, teachers, trainee teachers and aspiring teachers and their comments reflected their own personal hopes for the course and how far these had been met. One parent spoke of their improved confidence in approaching their child's school if they had any concerns over her progress, whilst a teacher enthused that

> "This course really made me think about my role as a teacher, especially one working in an all-girls environment. The videos and articles are well chosen to promote reflection and interaction with fellow educators. It was most rewarding to share ideas and experiences with colleagues from a variety of contexts which underline the fact that the experiences we share are far greater than any local differences might suggest." *Hadrian Briggs, Deputy Head (Academic), The Royal High School, Bath.*

These comments illustrate that learners take what they feel to be the most important aspects of the course with them and that it is difficult to preempt the impact of a course on learners.

2. User engagement and retention

User retention is a significant issue in the creation of online courses and 'completion rates have been the bane of MOOCs' existence since their inception' (State of the MOOC 2016, 2016). However, arguably, completion figures are far too crude an indicators of success. MOOCs have often been heralded as a way for learners to self-empower and to self-develop, and the inherent sense of self-motivation and engagement within the courses imply that users have signed up of their own accord and will set their own learning outcomes. For some learners, this may be a full-linear course where every step is completed, commented upon and each unit formally assessed but, it could equally be a much more 'dipping in and out' approach where learners direct what parts of the course they want to engage with and interact with other users in a way that works best for them.

An unfinished MOOC may have been successful in the eyes of the learner because it helped them with a job interview, or a project at work or simply expanded their knowledge of an area they were interested in. By following this line of thought, MOOCs as learning platforms could be far more successful than their retention numbers suggest, but capturing this user satisfaction from the data is not currently possible. Moreover, post-course questionnaires would require a different tone and emphasis in their questioning to tease out some of these tangible, but less immediately obvious, benefits of taking (part of) a MOOC.

The 2015 research undertaken by Jordan, *Massive Open Online Course completion rates revisited: assessment, length and attrition,* analyses data from 221 MOOC courses, revealed that completion data was positively correlated with start date, indicating that with more recent courses, we are seeing higher percentage completion (Jordan, 2015, p.354). Exact reasons for this change would need further investigation, but it seems likely that this may be caused by both the decrease in average total enrolments over time, and also the refinement of courses based on feedback since MOOCs first launched.

The length of the course and the number of steps and activities per week has also been analysed to see if this influences user retention. When considering our next course, our Partnership Manager at FutureLearn discussed course length, and suggested that for particularly weighty courses, it can be preferable to split the course into two three week runs rather than one long six week course, especially for the teaching community where six weeks is often a whole half term. The timing of a course also seems particularly important in an education environment, which is so cyclic, and so timetable driven. We chose to launch our first MOOC in the autumn term in the run-up to Christmas (21st November 2016 for four weeks). We chose this time as it was towards the end of the autumn term, once teachers had settled into the routines of a new school year, but it is a very busy and demanding time in the school calendar. It will be interesting to compare this data with our second run of the course which ran in March-April 2017.

Revisiting our aims and objectives

One of the most important aspects of the evaluation process was to revisit the aims and objectives we set out at the start of the process. Creating and running the MOOC has been a rich learning experience, and one that has fed into other aspects of our work, namely supporting colleagues to create meaningful digital learning opportunities for their own students. The fact that most of our teachers did not participate in online learning in their own schooling, makes opportunities to experience this as adults a really valuable part of the CPD process, quite apart from engaging with particular course content. This has been a successful part of the course and one which we are keen to continue to build upon within our own GDST teacher community.

Another aspect of the course which we were particularly pleased with, was the fact that it attracted parents and other interested parties, not just teachers. We did not anticipate this and as a result, lots of the activities within the MOOC, assumed learners had access to classrooms and students. As a result, course content has been reviewed for the second course run to ensure that it meets the needs of these users, as their contributions to discussions have added a greater depth and breadth to the learning community.

Finally, one of the most interesting and exciting aspects of running the MOOC has been to be part of a global conversation on girls' education and the role of women in society. The comments from learners from South America, Australia, the Middle East, and other parts of Europe, where education systems are different, which may have contrasting cultural norms and a different set of expectations, have made for rich and varied discussions, sharing of experiences and learning from others expertise.

CONCLUSION

It is with these thoughts of sharing global practice and the value we place on colleagues' skills and expertise across the world, that this paper concludes. Throughout the conference we will have the chance to think about learning without borders in its broadest sense. For us, creating and evaluating our first MOOC has been an important way to engage with the wider education community and offer high quality CPD to teachers, which we hope will ultimately deliver tangible benefits to all students. By understanding our motivations and aims for creating the MOOC and those of our learners', we have

begun to articulate what success looks like for teacher CPD provided through GDST MOOCs. We are on an ongoing journey in this area, and this process of reflection has fed into the planning of our second MOOC, which will be launched in autumn 2017, in the area of educational research.

GLOSSARY

Term	Definition
Academy School	Academy schools are state-funded schools in England which are directly funded by the Department for Education and independent of local authority control.
A-Level	A qualification in England and Wales in a specific subject typically taken by school students aged 16–18.
CPD	Acronym standing for Continuing Professional Development.
Independent School	A fee-paying school that is independent in its finances and governance.
Secondary School	The next stage of schooling after primary school for children aged 11-16.
Sixth Form	The next stage of education after secondary school which is the two final years at school for students between the ages of 16 and 18 who are preparing for A-Levels.

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