

Pioneering MOOC in the Mauritius Context: Lessons Learnt and Observations: the Case of the Open University of Mauritius

Professor R Mohee, Higher Education Commission, Mauritius

Professor C Desha, Griffith University, Australia

Dr K S Sukon, Open University of Mauritius

R D Rampersad, University of Mauritius

T K Chadeea, Open University of Mauritius

R Doomun, Open University of Mauritius

Abstract

The Open University of Mauritius (OUM) pioneered the design and delivery of a MOOC, ‘*Sustainable Development in Business*’ in 2019, in collaboration with the Commonwealth of Learning (COL), as part of COL’s strategy for “*increasing access to learners on environmental awareness*”. This MOOC facilitated access to SDG materials to a global audience where participants would learn from each other: challenges, lessons and good practice. There were two intakes in 2020 and 2021 as the world was battling against COVID-19. With more than 13,000 registered participants in the four runs of the MOOC (May 2019, November 2019, June 2020, and April 2021), this highly successful MOOC has been a learning experience for the local team. This paper aims to explore the challenges and lessons learnt at the different stages: conception and design of the MOOC bearing in mind cultural diversity, marketing, managing multidisciplinary teams from different institutions, using the mooKIT platform and using feedback to review the MOOC. Being the first-ever Mauritian-led MOOC with predominantly Mauritian learners, this paper contributes to the literature on the lived experiences of the collaborators in developing and facilitating the MOOC. It is hoped that the lessons learnt will empower other institutions embarking on MOOCs to build impactful MOOCs.

Keywords: *Massive Open and Online Course, OER, internationalization, collaborative learning*

INTRODUCTION

With the COVID-19 pandemic, we have witnessed a surge in online learning and new patterns of learning are emerging, making more use of open resources and online and blended modes of delivery. MOOCs are the latest step in a global trend of growth in online learning. They have emerged in the public discourse on the potential transition to education using digital technologies. Since large scale MOOCs started in 2012, we notice a remarkable growth in the numbers and diversity of courses provided and the number of MOOC learners.

LITERATURE REVIEW

MOOCs: Definition and What They Bring to Learners

There is a lack of precise definition of MOOCs. The term MOOC was coined in 2008, with the definition as Massive Open Online course and the delineation into the cMOOC, constructivist MOOC and eMOOC, the extended MOOC. Since then, there have been many changes/variations in its terminology although the notions of **Massive** (available to a large audience), **Openness** in most cases, and **Online** stayed. MOOCs have quickly evolved into a number of forms with various taxonomies. When we talk about MOOCs, we talk about a continuum: Awards of certificate of attendance to formal accreditation against payment of fees, targeting experts or open to anyone who has an interest in the subject.

The alluring promise of MOOCs and what keeps people interested in them is their ability to offer free or low-cost education to anyone, anytime, anywhere, and on a massive scale (Delbanco, 2013; Jordan, 2014; Yang *et al.*, 2013). MOOCs are hence a way of increasing access to learning and also to micro-credentials. While some say that they do not always see MOOCs as bringing significant value to knowledge transfer, they do recognize that a MOOC of good quality can help people already experienced to improve their knowledge and skills in specific areas and can be a useful component of lifelong learning (Stephens & Jones (2015)).

UNDERSTANDING THE CONTEXT: SDG and MOOCs at the OUM

Initially, in 2017/2018, the Open University of Mauritius (OUM) developed an Open Educational Resource (OER) on 'Business for Sustainable Development' that was piloted on Commonwealth Executive MBA (CEMBA) students in 2018.

The project for a MOOC on Business for sustainable development, as a followup on the above OER, was initiated by the Commonwealth of Learning, as part of its strategy for increasing access to learners on environmental awareness' and in line with its mandate of learning for sustainable development. The Open University of Mauritius expressed interest as the MOOC provider, in view of its prior engagement in the creation of an OER in Sustainable development for business and envisaged the possibility of using this MOOC as prior learning for those enrolled in that OER. Hence the OUM became a pioneer in the local context for the design and delivery of a MOOC.

Statistics of the MOOC Offer						
		Female	Male	Undisclosed	Total	Completion Rate (%)
1ST OFFER	May/June 2019	445	572	5	1,022	45
2ND OFFER	November/December 2019	1,882	2,339	8	4,229	50.4
3RD OFFER	June/July 2020	1,775	2,837	10	4,622	22.8
4TH OFFER	April 2021	1,681	1,987	7	3,675	28.4

Table 1. Statistics of the MOOC Offer

With more than 13,000 registered participants in the four runs of the MOOC (May 2019, November 2019, June 2020, and April 2021), this highly successful MOOC has been a learning experience for the local team, as discussed below.

THE PROCESS OF SHAPING THE MOOC

In this section, we discuss the journey of the team to mount this MOOC as per the following subsections:

1. Course Content Development
 - a. Identifying the core team members
 - b. Choosing the MOOC platform
 - c. Content development
2. Marketing the MOOC

Course Content Development

- Identifying the Core Team Members

The project needed a core team with specialist skills and knowledge to ensure the success of the MOOC. Each team member had clear terms of reference to ensure that the tasks assigned were completed satisfactorily and the tasks were listed in detail in the contract issued to each team member.

Figure 1 illustrates the tasks assigned to the core team members who were involved in the MOOC and their respective terms of reference.

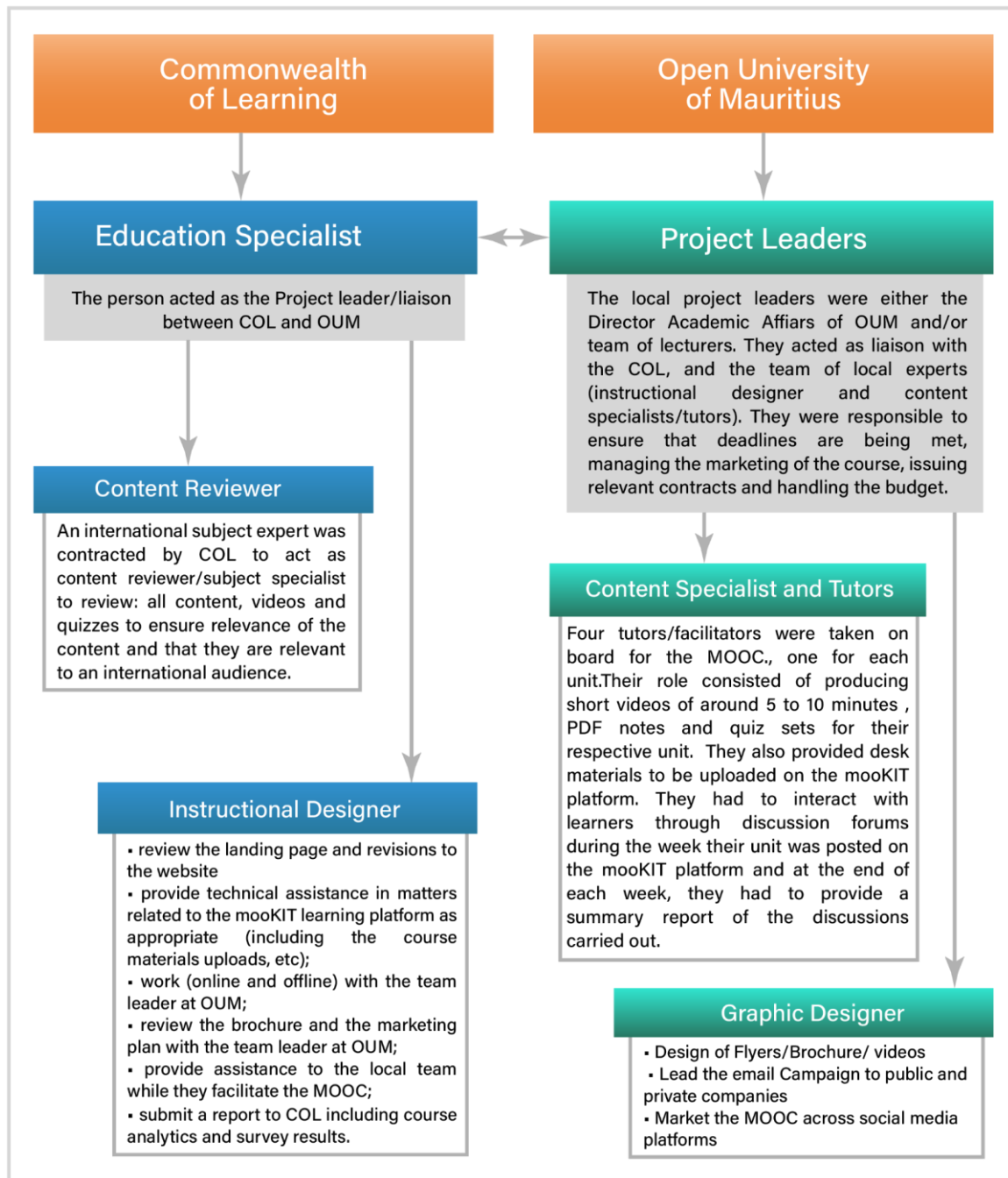


Figure 1. Terms of Reference of Key team members of the MOOC

- Choosing the MOOC Platform

Once the partners and various collaborators were identified, the next step was to identify the MOOC Platform/Provider for hosting the MOOC. Following the recommendations from COL, the mooKIT Platform developed by IIT Kanpur, India was identified and adopted. mooKIT is considered as a powerful MOOC management platform that can offer courses at any scale from a micro to massive audience.

The criteria for selection were:



The MOOC by OUM was part of a series of other MOOCs offered by other Commonwealth Institutions and hosted on the page <https://www.mooc4dev.org/> (MOOC For Development). Back office support, by the COL/mooKIT team, was also available to address technical and design issues encountered by the team.

- Content Development

The materials for the MOOC as first developed in 2019 were part of the OER that was developed by OUM in 2017/2018. Given that the duration of a MOOC is shorter, four core units were identified from the OER to be deployed as a MOOC.

The titles of the four topics were

- Challenges and Complexities of SDGs
- Business Opportunities
- Sustainable Trade and Economic Growth
- Sustainable Production and Consumption

These materials were reviewed for accuracy, relevance, and to ensure that the content is appealing to an international audience. Most of the contents were PDF notes but as the team gained more experience, and based on feedback from learners, more videos were developed and added to the MOOC in 2020 and 2021. Figure 2 below is a flowchart illustrating the process for creating and assuring quality assurance of the course materials.

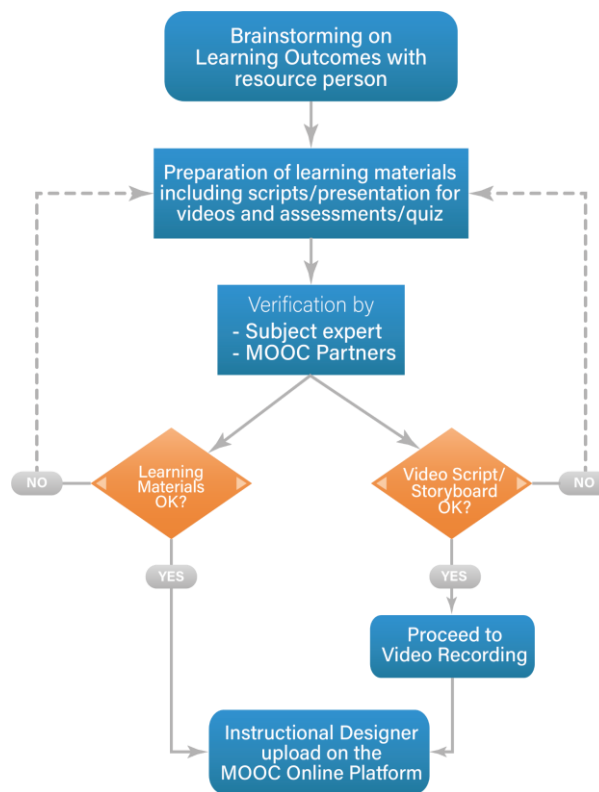
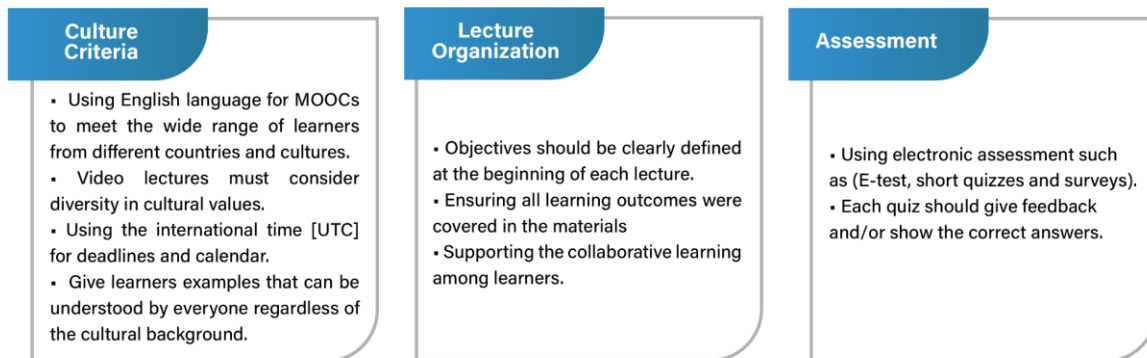


Figure 2. Process flowchart for creating the course materials.

The main criteria adopted for approving the learning materials were:



The topic of the MOOC on ‘SDGs and business’ was already very pertinent issues pre-COVID-19, that is, businesses should be carried out in a responsible and sustainable manner, and more importantly, sustainable development offers new windows of opportunities to the ecologically-minded entrepreneur or businessman.

It was observed from the two runs in 2019, learners, through posts initiated by them, were already engaged in the sustainable discourse: Titles of their posts were as follows:

- *How to prioritize increasing social and environmental welfare apart from GDP?*
- *How the corporates that have businesses which are adversely affecting the planet and people will have challenges in meeting SDGs?*
- *Serious challenges to SDGs Implementation*
- *Good governance: the key to sustainable development.*
- *Why are Africa Leaders not doing anything serious about SDG?*
- *Profits before planet or planet before profit: what is your take?*

In 2020, the topic garnered renewed interest: the third offer was during the quasi-world-wide 2020 lockdown, and the third offer focused on resilience and recovery from COVID-19 pandemic.

To ensure the quality and credibility of the content and to ensure that learners remained engaged in the course for four weeks, it was very important to have an international content reviewer who is active in the field of SDGs. The reviewer also ensured that the units were a mix of theoretical concepts, and provided room for critical thinking and argumentation based on the participants' local contexts/realities and level of development. Similarly, the quiz sets were meant to gauge learners' knowledge and the forums were the platform for analytical and critical thinking where learners commented on the videos, PDF files, and discussed their local contexts in terms of government action/inaction, and resources available, etc.

The mode of delivery of core content for the first offer was mostly via PDF notes with an introductory video by the international content expert. It was found that the content experts were mostly camera-shy. But as the team built more confidence, they were more comfortable doing their own videos. COVID-19 in 2020 also forced them to do their own recording at home and send the videos to OUM for editing. A standard template and instructions were prepared and made available to the content experts.

The content developers/tutors and the international content reviewer had to bear in mind that the content targeted an international and heterogeneous audience in terms of age, professional background, gender and grasp of the English language. Therefore, a balance had to be established in ensuring that new, complex and emerging concepts are introduced in a simple and culturally-neutral language. Ambiguities, ambivalence, and terms that might have cultural connotations were checked and corrected as appropriate. The same rigour was applied when designing quiz sets and preparing the complementary videos and posting forum questions. The use of PDF notes and videos as well quiz sets and forum questions posted by the tutors further supported learners with different learning and perceptual styles. For more advanced learners, a list of resources was also provided to allow them to explore the field at their own pace and time after the four-week course.

Marketing the MOOC

In parallel to designing the MOOC and developing the content, the team started to market the course. OUM is a small university in a small country and is unknown to many people around the world. Marketing the course the first time was a big leap of faith for the local team. The team adopted a systematic approach. The golden thread for marketing the MOOC was a MOOC Content Calendar. This document has been developed to define all the tools which will be used for planning and marketing the MOOC.

The tools used for marketing were:

1. An introductory video that illustrates the rationale behind the MOOC project and roughly describes the learning objectives.
2. e-Newsletters
3. e-Brochure
4. Printed Brochures
5. Facebook Sponsored Ads

The marketing was done extensively by the Commonwealth of Learning and the Open University of Mauritius. The Commonwealth of Learning used its own network and channels to disseminate information about the offer of the MOOC. At the Open University of Mauritius, the marketing was done primarily through Facebook Ads. A dedicated Facebook page (<https://www.facebook.com/SustDevBizMOOC/>) was created which has 4345 likes (as of 11 April 2022). Information about the course was also disseminated to OUM students and staff. Printed brochures were distributed to participants of the PCF9 conference held in September 2019 in Edinburgh, Scotland to market the second run of the MOOC.

It was observed that peak registration is normally around the deadline for registration and this is where marketing has to be done in a more sustained and consistent manner.

To create the brand, the “logo” of the MOOC was used for Facebook, brochures and email signatures of the team involved in the MOOC. The same logo was used for materials developed for the MOOC: PDF notes, videos, certificates and digital badges.

This MOOC helped to put the OUM on the global map, with learners from Papua New Guinea, Australia, the African continent and the Indian subcontinent (India, Nepal, etc.) as well as Canada and the USA. In fact, for the second offer, 42.4% of the participants were from Rwanda and 12.7 % from Nigeria while Mauritius came third with 9.3 %.

DURING THE MOOC: OBSERVATIONS AND LESSONS LEARNT

The team members learnt a lot about student engagement during the four weeks that the MOOC lasted. The observations are grouped in the section that follows:

- Student Engagement

It was observed that there are different intentions when learners join a MOOC: there are some who wish to learn about SDGs and those who are more concerned about earning a “certificate”. It is to be mentioned that during the last run of the MOOC, a digital badge was also offered along with the certificate. The digital badges motivated the participants to complete the MOOC and some previous participants re-do the MOOC to earn a digital badge. To ensure that learners engage with the content and also test their knowledge, the criteria for the award of the certificate required them to complete all quiz sets and participate in at least ONE forum. It was found that among those who did complete the quiz sets, many had not posted/contributed to any forum posts and they were more the ‘quiet’ participants. As such, they were not eligible for the certificates.

The posts initiated by learners were of the following nature:

- Introducing themselves
- Sharing contact numbers/invitations to create a community of practice, post the MOOC
- Reacting to content (video/PDF)
- Responding to posts by tutors and peers
- Reflecting on content and linking to their local context
- Helping peers
- Asking questions about quizzes, navigating the course and certificate status

There was a lot of peer/collaborative learning happening, with learners creating an ecosystem on their own and owning the platform. They were taking the initiative to launch forum discussions the week prior to the start of the course, to ask for the expectations of their fellow participants, and then to help and encourage their peers. Trends and traits of the individual learners started to emerge (the one always guiding learners, encouraging the peers and the one asking mainly questions related to marks, assignments and so on) during the four-week course.

According to the Community of Inquiry (Garrison *et al.*, 2008) model, interaction in online courses “manifests in at least three modes: student-content; student-instructor, and student-student”. The MOOC was proof of the different types of interactions as illustrated in Figure 3.

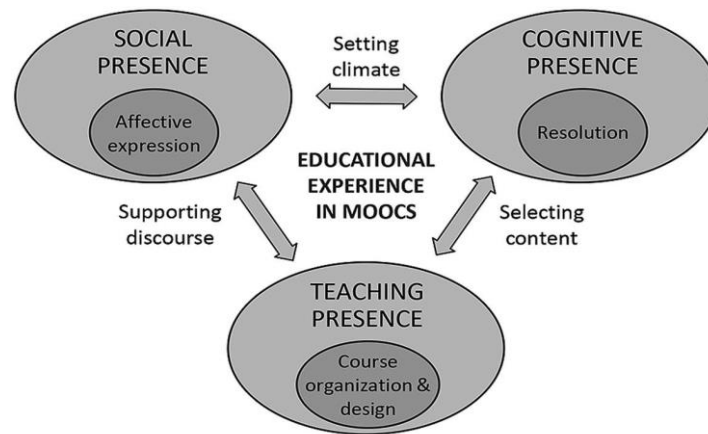


Figure 3. Community of Inquiry model in the MOOC context (Source: Kovanović et al., 2018)

What we found was that the forum space was owned by the learners and became mostly a platform for student-student interaction. Many learners were boldly commenting and initiating forums and sharing different contents and perspectives. But this also led to a situation where there were many redundant posts. Indeed, coping with Superposters was one issue in this MOOC. Learners just created a post while going through the content and not reading the existing posts and replying to the same thread. It became quite difficult to answer the participants one by one.

The redundancy in posts could be explained by various factors:

1. Desire to share local/personal experience
2. Need to ensure that one is fulfilling the criteria for the award of a completion certificate
3. The need to have a platform to voice out and be heard/ to assert one's presence

Huang *et al.* (2014) talk about the superposters and how they might be fulfilling an important function: *'Participants used the forums for productive dialogue about the class, ranging from quick questions and answers to sustained conversations, ... students who posted questions tended to get responses, and the students with the largest footprints participated in ways that were mainly positive, content-focused, and appreciated by other students.'*

The posts had 'like' buttons and showed the number of replies. The question that we need to ask is whether the superposters were mirroring social media behaviours in the MOOCs? It would thus be interesting to investigate the correlation between the superposters and whether they successfully completed and also to take this trend in the design of forum questions and consider that aspect in the learning analytics.

The posts nevertheless remained a rich source of data to observe learner traits, and learning styles, where the critical thinking and creativity of learners were unbridled and where they felt that they had a voice.

Some more titles from learner-initiated forum posts demonstrate this buoyancy and enthusiasm of the learners:

- *"How can I better influence change in these practices in my company?"*
- *I would like to have a discussion on elements of SDGs and the reason why in some cases it fails. The mitigating factors among others.*
- *Hi, I invite you we discuss this question: What is the sustainability of the implementation of SDGs in developing countries?*

It was encouraging to see learners making a plea that peers think beyond the marks and certificate and instead engage in a paradigm shift, what they called a "sustainable learning paradigm". Some even suggested the creation of a "community of practice".

- Feedback Forms

It was deemed very important to have a pre-course survey and post-course surveys for this MOOC. Initially, the proposal was to have a google form for the above two surveys. The forms were inspired by the pre-course /end of course surveys designed by the Athabasca University for the mooKIT “TEL MOOC”. Legal advice was sought for the “Disclaimer” and the forms were thoroughly vetted. The mooKIT team then proposed to integrate the surveys in the LMS so as to be able to capture the data for analysis purposes. The feedback from the surveys was instrumental in guiding and informing the team for the review of the course for the next offer, such as having more videos, and more quiz sets.

- Backing up of All Files

The team leader from OU was responsible for ensuring the backup of all files, correspondence and videos to be used for future runs so that even if the team members change, there was continuity and the new team could easily take over. All the tools and correspondence were saved on Google drive and carefully filed for each run of the course.

- Empowering Experience

The MOOC was an opportunity to empower and tap local expertise in the field of sustainable development and online learning. Hence the Mauritian team has been wholly exposed to the different stages of the development, marketing and implementation of a MOOC. Moreover being an inter-institutional project, champions of MOOCs have been trained in two main public institutions in Mauritius.

Many of the issues encountered for the first offer (not enough videos, more challenging quiz) were addressed and this meant that there were fewer issues that had to be attended to during the offer of the MOOC. The team has grown in terms of maturity, confidence and stronger ability to anticipate the needs of the participants to reduce their frustration.

- Launching of the Course

The fact that the MOOC was always launched on Fridays and new content was uploaded on Fridays, meant that learners were very active during the weekend. Peak activity was around two to three days after the posting of new materials online. Therefore when starting a MOOC, the timing for launching the course and the closing date for the registration process are part of the many important decisions to be taken on board when offering a MOOC.

CONCLUDING NOTE AND FURTHER RESEARCH

Overall, it has been a great learning experience for the whole team working on a MOOC for the four offers. Working in such an international class, with different expectations, was a great learning experience, both ways. The team from COL and IIT Kanpur have helped beyond expectations and have ensured that the local team gain confidence and autonomy for future MOOCs.

This experience also paves the way for research on how learning occurs in a MOOC with learners owning the space and different learning styles emerging. It would also be interesting to see the impact of a ‘colonial education system’ on how learners from the different Commonwealth Countries/ex-colonies learn and engage with MOOC. Other areas of research also include learner engagement (superposters, the silent learners) and the link between successful completion of a MOOC and then moving beyond to become champions within their own local institution and country.

REFERENCES

- Anderson, T. (2013). Promise and/or peril: MOOCs and open and distance education. *Commonwealth of learning*, 3, 1-9.
- Bonafini, F., Chae, C., Park, E. and Jablokow, K., 2017. How much does student engagement with videos and forums in a MOOC affect their achievement?. *Online Learning Journal*, 21(4).

Delbanco, A. (2013). MOOCs of Hazard: Will online education dampen the college experience? Yes. Will it be worth it? Well. *New Republic*. Available at: <https://newrepublic.com/article/112731/moocs-will-online-education-ruin-university-experience>

Demaree, D., Kruse, A., Pennestri, S., Russell, J., Schlafly, T. and Vovides, Y., 2014. From Planning to Launching MOOCs: Guidelines and Tips from GeorgetownX. *Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering*, pp.68-75.

Ferrari, S., Rivoltella, P., Rizzi, C. and Scott, F., 2015. Designing MOOCs in Higher Education. Outcomes of an experimentation at the Catholic University of Milan. *Research on Education and Media*, 7(1).

Garrison, D. R., Anderson, T., & Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *The internet and higher education*, 13(1-2), 5-9. Available at: <https://doi.org/10.1016/j.iheduc.2009.10.003>

Huang, J., Dasgupta, A., Ghosh, A., Manning, J. and Sanders, M., 2014, March. Superposter behavior in MOOC forums. In *Proceedings of the first ACM conference on Learning@ scale conference* (pp. 117-126). Available at: <https://doi.org/10.1145/2556325.2566249>

Jordan, K. (2014). Initial trends in enrolment and completion of massive open online courses. *International Review of Research in Open and Distributed Learning*, 15(1), 133-160. Available at: <https://www.erudit.org/fr/revues/irrodl/2014-v15-n1-irrodl104927/1065273ar/>

Kovanović, V., Joksimović, S., Poquet, O., Hennis, T., Čukić, I., Vries, P., Marek Hatala, M., Dawson, S., Siemens, G., Gašević, D. (2018). Exploring communities of inquiry in Massive Open Online Courses, *Computers & Education*, 119, pp. 44-58. <https://doi.org/10.1016/j.compedu.2017.11.010>.

Najafi, H., Rolheiser, C., Håklev, S., & Harrison, L. (2017). Variations in pedagogical design of massive open online courses (MOOCs) across disciplines. *Teaching & Learning Inquiry*, 5(2).

Stephens, M., & Jones, K. M. (2015). Emerging roles: key insights from librarians in a massive open online course. *Journal of Library & Information Services in Distance Learning*, 9(1-2), 133-147. Available at: <https://doi.org/10.1080/1533290X.2014.946353>

Arbaugh, J.B., Cleveland-Innes, M., Diaz, S.R., Garrison, D.R., Ice, P., Richardson, J.C. and Swan, K.P., 2008. Developing a community of inquiry instrument: Testing a measure of the community of inquiry framework using a multi-institutional sample. *The internet and higher education*, 11(3-4), pp.133-136.

Wong, J.S., Pursel, B., Divinsky, A. and Jansen, B.J., 2015, March. An analysis of MOOC discussion forum interactions from the most active users. In *International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction* (pp. 452-457). Springer, Cham.

Yang, D., Sinha, T., Adamson, D., & Rosé, C. P. (2013, December). Turn on, tune in, drop out: Anticipating student dropouts in massive open online courses. In *Proceedings of the 2013 NIPS Data-driven education workshop* (Vol. 11, p. 14). Available at: <https://faculty.cc.gatech.edu/~dyang888/docs/nips13.pdf>