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Curating an OER Course by Applying the Learner-Centric MOOC Model

Ajita DESHMUKH [a*] & Sameer SAHASRABUDHE[b]
[a] *School of Education & Research, MIT-ADT University, India*
[b] *Educational Multimedia Research Centre, Savitribai Phule Pune University, India*
**ajitadeshmukh13@gmail.com*

Abstract: Use of Open Educational Resources (OERs) is on the rise, and many new models can be seen emerging in the educational technology domain. One of the prominent techniques is to 'curate' OERs and augment them with customized / aligned activities instead of creating new resources. This paper presents the study of an OER course titled 'Creation by Curation' developed based on the LCM model. The course was developed using curated OERs and elements of the Learner-Centric MOOC model (LCM) were used to augment and contextualize the OERs. This paper enquires perception and acceptance of participants towards curated OERs instead of instructor-developed videos as well as the interactivity and engagement with curated OERs used as course content. Findings of this study report a favourable perception of participants towards curated and augmented OERs. The study suggests application of the LCM model to augment the OERs enhanced interactivity and engagement.

Keywords: OER, Curation of OERs, Augmentation of OERs, LCM model, Learner engagement

1. Introduction

The concept of Open Education Resources (OERs), since its inception in a UNESCO conference in 2002 has travelled the globe and has transformed into a larger domain called as Open Education (OE) comprising various types like OERs, Open Courseware (OCW), Open Courses, Open textbooks, Open Library being the prominent ones. OER movement has become synonymous with democratization of education with the usage of OERs strongly founded on principles of sharing and participation. Despite the buzz around Open Education and OERs and its benefits, its acceptance and integration into Education still poses a question. It is the educators, trainers and the researchers that play a pivotal role in establishment of the concept of OERs and its usage and implementation.

There is a sharp rise in creation of OERs with more and more academicians and publications releasing their content in 'open' format on various platforms (Bliss & Smith, 2017; Wiley, 2007). It is difficult to ascertain the exact number of OERs created and available which could possibly be a few thousands of OERs. The major hurdles documented in the adopting OERs by teaching fraternity are: lack of awareness, institutional policies and their own perceptions (many of them being negative) towards the quality and validity of the OERs. Research has pointed out that the lack of ICT skills in teachers, along with the lack of knowledge of adapting OERs adds to the gap between the OERs available and the OERs used and practiced (Orwenjo & Erastus, 2018).

Though OERs provide avenues for adaptation of the resources, their adoption needs teachers to understand the fundamentals and possibilities of adaptation of resources. Traditionally, teachers of all levels have been conditioned to using textbooks in the 'use-as-is' format. It was noted that teachers would need guidance for curation, adaptation, and adoption. A course entitled *'Creation by Curation'* using curated OERs was developed to demonstrate the principles of curation to educators. The Learner Centric MOOC (LCM) model (Murthy, Warriem, Sahasrabudhe, & Iyer, 2018) was used to augment the OERs curated for the course. This carried the benefit of an additional research angle with regards to engagement of participants in an OER course. The case study in this paper suggests that the LCM model

enhanced the engagement of participants in the course. The case study reveals the influence of LCM model in contextualizing and adapting the OERs, thus making them favourable for curation concurrent with the principles (5Rs) of OER usage.

2. Literature Review

Importance of OER initiatives are highlighted in the policy decisions (UNESCO 2012, European Commission 2013, Cape town Open Education Declaration 2017). Several nations including India have established their OER repositories through government initiatives. (Wiley, 2007). Interestingly, 1700 courses from seven University based Projects in USA, 451 from 176 University members of China, 350 courses from 10 Universities in Japan and 178 courses by universities in France as OERs are reported (Falconer, Littlejohn, McGill & Beetham, 2016).

The potential benefits of using OERs reported are varied such as increase in the collective efficiency of educators (Hoosen, 2012), increasing the breadth of course offerings (Hoosen 2012, Falconer et al), minimizing barriers -economic and geographical- to higher education (Butcher & Hoosen 2012). Significant barriers to the usage of OERs have been reported. A few of them are academic competition and branding (Dholakia, King & Baraniuk, 2006; Falconer et al, 2016, Sexias, Dove, Ueberschar & Bostock, 2014), low awareness regarding availability and usage (Sexias et al, 2014). Additionally, concerns regarding quality and trust (Grodecka & Sliwowski, 2014; Clement & Pawlowski, 2012) and the ease of technology integration (Atkins et al, 2007; Clements & Pawlowski 2012; Sexias et al, 2014) were reported as major barriers for usage of OERs.

The buzz around the Open Education movement led to public and private initiatives all over the world. The Government of India formally recognised the usage of OER in education and the National Knowledge Commission (NKC) was subsequently established in 2008 followed by NROER in 2013. After that, there have been several initiatives in the field of OER in India.

Despite this, the challenges in usage of OER are aplenty. Other than a few researchers like Das (2011), Sharma, Mishra and Thakur (2014) and Venkaiah (n.d) have reported insights into the usage trends with the specific case of India. Lack of teacher training with respect to awareness, skill in using OERs in education and lesser availability of OER in regional languages were some major barriers recognised in the case of India (Padhi, 2018). Other than these few researches, there is sparse literature on OER usage in India. This indicates the need for deeper research into the OERs.

This paper is based on the case study of the online course- '*Creation by Curation'* and outlines how the curated and augmented OERs were leveraged as major course content. This study further explores the acceptance of the curated OERs as course content by the participants and their engagement in the course.

3. The study

This case study is based on the 4 week open online course 'Creation by Curation' conducted on the Gnomio platform. The development of the course was based on two major constructs: Curation of OERs, adapted suitably and the LCM model as structure of the course (See Figure 1). For example, the videos chosen as course content were augmented into Learning Dialogues (LeD) as per the LCM model using tools (such as H5P). H5P was used to introduce the 'Reflection Spots', reducing the passivity and allowing the learners to reflect on the content.

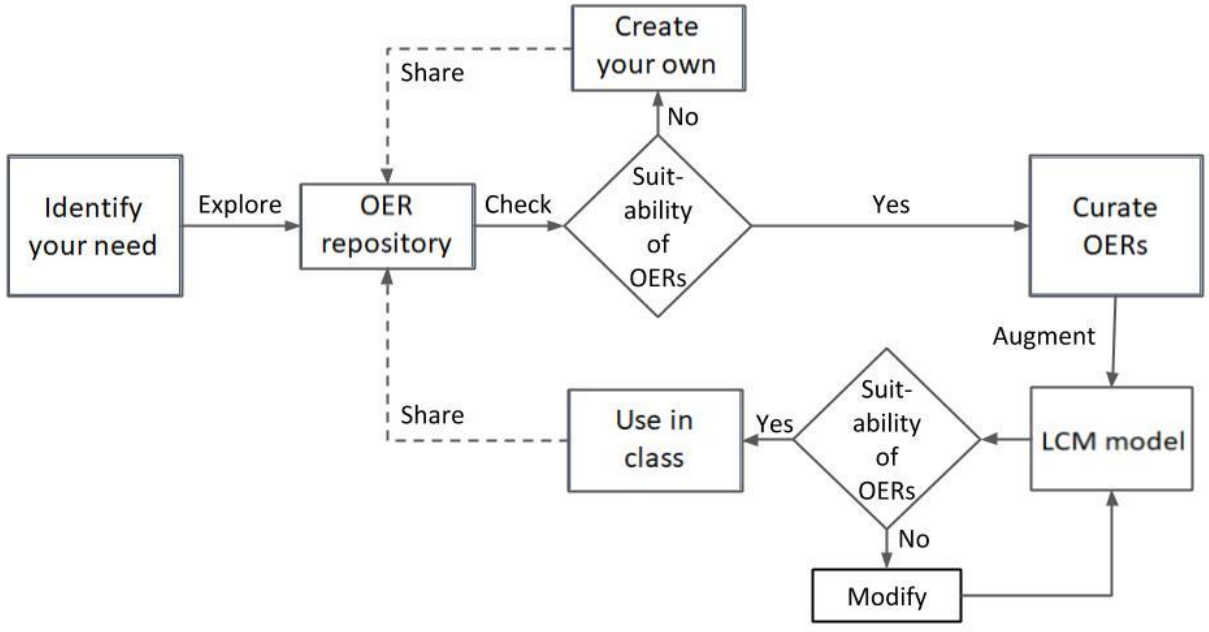

Figure 1: Applying LCM model for curating an OER course

3.1 Context:

The 'Jožef Stefan' Institute in Ljubljana (Slovenia) launched an online mentoring program entitled 'Open Education for a Better World'. The program is aimed to unlock the potential of open education for achieving the Sustainable Development Goals by the UN. The course '*Creation by Curation'* was offered as a part of the *'Open Education for a Better World'* online mentoring program with a goal to enable educators to curate their own online course.

The participants were faculty members or research scholars from various disciplines from institutes of Higher education across India. The participants were from domains like Science, Engineering, Humanities, and Management. The participants had a varied level of experience ranging from 2 years to 15 years or more. The average experience of the participants was estimated to be 10 years. Some participants also held senior administrative positions in their institutions.

3.2. Method: Case study

Research in OERs is a relatively new area of research and so is curation of content to a majority of faculty. Choosing this course *'Creation by Curation*' as a case study was considered as appropriate since the content of the course was largely curated content. This allowed the study of a few prime areas of OER research.

The case study begins with the documentation of development of this course using curated OERs and their augmentation as per the LCM model used for enhanced learner participation and engagement. The focus of this case study was to gain insights on participants' perception on the usage of curated OERs and their engagement with the same.

A survey was conducted to collect the perceptions of the participants who had successfully completed the course, regarding the course content, activities, duration as few parameters. This was followed by a telephonic interview of the participants who had completed the survey and had given their consent for the interview. The semi-structured interview probed on aspects such as the type of content they found more engaging, their perspectives on the curated course, process of curation and its application.

3.3. Research Questions:

This case study addresses multiple questions that arise in conducting an LCM Model based course using curated OERs. These questions ranging from the perception towards the curated OERs to the engagement in such a course are studied with the following specific questions.

1. What was the perception/ acceptance of the curated OERs augmented using the LCM model?
2. How was the LCM model used to augment the OERs to make them adaptable as curated content?
3. How did the augmented OERs engage the participants in the curated course?

3.4. Data Collection

The participants were tracked for the entire duration of the course. The analytics of the Gnomio platform were used for the purpose. The analytics could track the activity of each participant on each of the elements of the course including the activity completion. This helped to identify consistently active participants who could complete the course as well as those who were consistently active except the last week which did not allow them to be certified. The course saw active participation of 43 (31 male and 12 female participants) out of which 29 completed all aspects leading to their certification. This further enabled purposive sampling for this study.

The next step for data collection from the sample was the feedback to the course and the consent to telephonic interview. The feedback form of 10 questions collected responses regarding content clarity, instructor availability, the amount of time invested in the course, perception of improvement in skills amongst others like personal choice of content and suggestions for improvement along with permission from the participants to be interviewed via telephone. The data was collected from these participants after their consent to the telephonic interviews was obtained. The feedback form was filled by 23 of the 29 participants who completed the course and were awarded the certificates and 3 participants who could not complete the course. Out of the participants who submitted the feedback, 15 conveyed their willingness to be interviewed. The telephonic interviews were conducted within the ethical parameters of research. Neither the data of the interviews, nor their identity or phone numbers were utilized for any other purpose than the purpose of interviews.

3.5 Data Analysis:

The data obtained from the telephonic interviews was documented. The documented data was appropriately coded and further analyzed as per the guidelines of qualitative research (Creswell, 3rd Edition). The narrative analysis was carried out manually for the purpose of identifying codes. The codes were subjected to repeated cycles of coding, filtering, and categorization resulting in respective emergent themes discussed in the next section.

4. Results and Discussions

The analysis of the interview transcripts gave insights into the perception of the participants towards the curated OERs used as major course content. The analysis probed to gain insights on the interactivity and engagement with the OERs augmented on the basis of the LCM model.

4.1. Perception towards curated OERs as course content

The participants mentioned that the concept of curation was a novel idea for them. Most of them revealed that the introductory video by the instructor that spoke of curation motivated them to join the course since they thought curation of OERs would take away the burden of creating videos for their courses. The participants disclosed that they were not well aware of the process of curation. They indicated that curation is a deeper process than just sharing the references.

"Curation would enable me to take up developing my own course which I was putting off. I was worried about the number of videos I would need to create."
"I never thought this (Curating content) could be done! I mean, we do have quite a few films and videos that we can use."
"I used to give links of good videos and films to my students to watch. And then struggle to make videos on the same topic again. They are quite dull in comparison. Now I know I need not do it! I feel empowered!"
"I wonder why this is not spoken of when they train us for developing online courses. This makes developing online courses seem do-able."
"This - that we need not prepare all the content ourselves, was sitting right there, staring in the face, but with this course, I came to know how to build a course using these resources."

The process of Curation was recognized as a process of deeper thought process and strong pedagogy. The interviewed participants affirmed that the course helped them to understand curation is not just putting resources or giving them as references but it is a more structured way to weave the content. They insisted that the principles of curation gave them the basics of curation and that they could attempt trying curation.

"Curation is not just putting random resources together. I will have to think of the gap in the content before figuring out the next resource."
"Curation also will mean that I need to have my activities designed and in place."
"This is serious business. I can't casually pick up resources that I come across. I need to pick and choose ones which fulfil the objective."

4.2. Augmenting the OERs on LCM model

The participants expressed that the structure of the course was unique and they had not found a similar structure in the courses that they had taken earlier. The LCM wrappers were found to be useful by the participants. The participants expressed the high level of interaction of the instructor with the participants was unique and kept them motivated. They communicated their views on the elements of the LCM model incorporated in the course.

- Learning Dialogues (LeD) and adding the Reflection Spots (RS)

  The video resources were the most preferred type of resource for both purposes - content and convenience. The participants interviewed noted the marked difference between a shared video resource and the video augmented with a Reflection Spot. The participants interviewed expressed that adding Reflection Spots to the curated OER or created video content and converting them to Learning Dialogues (LeD) addressed their concerns while using video content. The major concerns conveyed were the lack of dialogue between the instructors and their learners and whether the learners are actually watching the content.

  "The concept of Reflection spots and LeDs is a good one. It would be helpful for me to know if my learners are watching the content."
  "I enjoyed the Reflection Spots that were created using H5P in this course. I am surely going to use it in my course."
  "I have the habit to ask questions during the class. For me, it tells me whether I need to go slow, repeat something and much more. I always felt that this aspect was missing in the videos that I shared. Now I seem to have found a way."

- Learning by Doing (LbD)

  The interviewees asserted that the activities such as quizzes and H5P interactive content after the LeDs prompted them to apply what they had learnt. They disclosed that the assignments were application based and consolidated their learning. They affirmed that they were engrossed in the activities through the course and particularly enjoyed the activities

designed using H5P.

"H5P was great. It made the activities very engaging. The other courses undertaken did not have such a variety of activities"
"The options in H5P were different from the other courses that we had taken earlier, which included only quizzes."
"The inclusion of Wiki was a novel idea. It was difficult initially, but I got the hang of it."

- The benefits of the Discussion Forum (DF) for Learner eXperience Interaction (LxI)

  The interviewees reported to have benefited from the Discussion Forums (DF) and the Learner Interaction (LxI) the most. They expressed that DF helped them to be updated with the course happenings as well as served as the channel for direct contact with the course instructor. As learners, they introduced themselves and disclosed that this assured not feeling isolated in the course. They reported that the different categories of the DF kept the things handy and clutter free. The DF logged the maximum activity. The range of posts for a particular discussion topic began with 15. It was observed that these posts by individual participants were meaningful and carefully drafted ensuring non repetitive points and opinions for discussion. They mentioned that the Focus question ensured that they were prompted to participate.
  "The focus question was a very good way to focus on the content and also dig deeper."
  "The categories made it very easy to ask our queries. There was always someone or the other to help with the queries.
  "This idea of having a Focus question weaved around the content is an idea that we educators have but I have not seen in practice in the other courses that I have taken. This probably is the course design, and I must say, it is well framed."

  Additionally, the messenger of the Gnomio Platform was also used by the participants and the instructor for one-to-one communication when needed.

- The trajectories and the diversity

  The interviewees found trajectories (LxTs) to be a unique component of the course. The interviewees recognised that this component was missing in the other courses taken earlier or if present, was not as well structured. They mentioned that the LxTs not only gave them the choice of media for learning but also instigated them towards learning more and in different directions as indicated by the responses.
  "I had never come across the concept of trajectories earlier. This was good. I will incorporate it in my course."
  "The trajectories were a new concept. It sparked my interest to further explore related to the topic."
  "I was very concerned about the diversity in my classroom and also the diversity in learning. I think the Trajectories would help address my concerns in the course that I develop."

4.3. Engagement with the curated and augmented OERs

The interviewees reported that they were effectively engaged with the curated and augmented OERs and that they did not feel the absence of the instructor. Some of them recognised that videos by experts in the respective field are much more effective than an instructor. They also appreciated the augmentation and interactivity brought into the curated videos using tools and activities. They recognised that this allowed the instructor to focus on the activities which were contextualized and engaging. They reported that they would try to apply this in their courses.
"The activities around the course content kept us engaged. Be it crossword or puzzle for game-based learning or any other activity, there was no repetition."
"I loved the drag and drop activity and the games. The activities were relevant to the content and the objectives of the course."

"All the activities kept me engaged. And I loved the assignments. It was where I could apply learning of the course to my classroom."
"The instructor's presence was felt through the activities and the interactivity in the videos."
"I did not fast forward any of the videos even once. Because I wanted to answer the questions that popped up in between."

The most surprising interview responses were that the participants liked the absence of LIVE sessions. They revealed that this relaxed them from the fear of missing out.

'It was good not to have LIVE sessions. It adds to my stress to be able to make yourself available for the session. Also, in case, if the live session is missed, it usually leads me to stress out with 'Fear of Missing Out (FOMO). It adds to my demotivation.'

'A live session might be needed for entry level courses. That also if it is a highly technical course. In the case of advanced learners, a LIVE session is unnecessary. Good that it was not there in this course. In fact, its absence was a relief. Though we would have loved to see the instructors, it would not have contributed to the learning.'

5. Conclusion

The authors were expecting some comments about the lack of indigenous videos in the overall course content; however, the feedback shows that the participants did not record any preference of instructor made videos over the curated ones. They have in fact appreciated the expert videos. The study indicates the need for the training of the faculty members for the process of curation which could enable them to use the OERs.

The study registered favourable responses from the participants towards the LCM wrappers used to augment the course with curated OERs. They highlighted that these elements of the LCM model helped them to be engaged with the course content. The novelty and relevance of the activity are the deciding factors for engagement of the learners. The videos and interactive components remain to be a preferred component of the online courses. Interactive content, using H5P, was highly appreciated by the participants. It underlines the need of interactive material for engagement. Novel ideas for collaboration like a wiki, was appreciated but was found to be difficult and hence not attempted by all. The interviewees reported that the LbDs - the activities did not overwhelm or burden them, instead they were found to be supportive of learning. Nevertheless, participants registered preference for activities that have convenience of access.

Asynchronous but continuous, relevant, interesting communication in the form of Discussion forums and other collaborative activities are adequate to enhance a conducive learning environment especially if the participants are not entry level participants. The dislike towards Live sessions signals towards asynchronous interaction being convenient from the point of view of learners. More research is needed to probe into the finer nuances of this aspect.

A very robust Learner Interaction (LxI), both general and focused with respect to the course topics is helpful in building a learning community. The instructors have to ensure that the DF is kept lively, interactive and quick responses help in sustaining the interest in the OER based course. The study suggests that multiple channels of communication lend approachability to the instructor. This study indicates the possibility of a democratic learning environment using DF in an OER course conducted in online mode.

The study concludes that the teachers' awareness about use of OER is low. It also shows that the teachers need to be explained that the OER cannot be adopted into their course directly, but after adding learner-centric wrappers as suggested by the LCM model.

6. Recommendations

This study gives certain insights into the participants' thought processes of an online course that had two major differences as compared to most courses- curated OERs and the LCM model. These insights

provide some recommendations as follows.

The faculty members who are developing online courses:

- should be trained in Curation of OERs. This will enable the faculty members to successfully adopt and integrate OERs, thus serving dual purpose- firstly, reducing the load of creating resources and secondly, to contribute to Open Education Resources.
- should not stop at curation but augment the curated OERs using learner centric models like the LCM model to enhance the engagement with the course.
- should leverage the Discussion Forum for the Learner eXperience Interaction (LxI) thereby addressing and overcoming the isolation felt by participants in online courses.

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