

Exploring the Readiness of Indian Private University Libraries for Offering MOOC Services

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This study focuses on understanding the preparedness of private university library facilities and infrastructure in the MOOC setting. To determine how the platform of these online courses can be better utilized by the students, eventually leading to promoting the quality of education in the university. A survey of 157 library professionals and LAC members was conducted to know the existing situation of the university library and professionals in the MOOC scenario. The data was investigated via the Statistical Package of Social Science (SPSS). The results showed that the current library setup is not suitable to accommodate MOOC services for library users and the library professionals are also not adequately trained for understanding MOOCs and deliver MOOC services to the library users. This study delivers actionable points, based on relevant academic literature and the user survey, for library management and policymakers to re-equip the academic libraries to offer MOOC services to the users.

Introduction

To efficiently enable the use of MOOCs by the universities there are a few parameters which are needed to be fulfilled such as high-speed transmission technologies, the changing scenario of easy availability of high-speed internet to the majority of the countries around the globe, and access to laymen due to affordable cost plans. This has provided the much-needed boom that helped in breaking the barriers of distance, speed, and time around individuals from different locations; Online cloud services, with the internet becoming more affordable the other associated web services like cloud storage too was now have become more economical leading to the creation of a bigger clientele than before. As the increased number of people store their data online this has eventually led to all user devices being connected to the cloud; User Gadgets, the low-cost net plans have also created a boom in the consumer markets for the purchase of various gadgets like computers, laptops, tablets, smartphones, etc. With their increasing demand by the users, the prices have become more reasonable. The number of smart device users has gone up due to the advent of such opportunities; Online Communities – Online communities have become a very essential part of the present generation. These communities mainly serve in the form of various famous platforms like Facebook, LinkedIn, WhatsApp, Skype, Google+, etc. People use such apps or websites on daily basis devoting hours of their time to communicating and sharing their thoughts with friends and individuals globally. All these activities have generated ease for the use of the internet among the masses (Rao et. al., 2015).

Hence, to understand and evaluate the existence of the above factors in the present Indian private universities' setup. This research has been conducted to find out the gaps that exist between the current and expected facilities of the libraries in providing MOOC services to the users.

2. Literature Review

With the growth of the MOOC environment and its learners, the support of various auxiliary units, especially the role of libraries is still not well defined. Due to this developing scenario and bringing more clarity to the roles of academic libraries and librarians, OCLC conducted a conference discussing the emerging practices in response to MOOCs like (1) Maintaining a collection of open educational resources or other resources which helps in avoiding copyright issues; (2) Providing support for educational institutes/universities engaged in developing MOOCs; (3) Creation of different plans and strategies for the best utilization of MOOC platforms like easy content accessibility, improving user information skills, etc. The Academic Libraries can also create plug-and-play information literacy modules which can be used in the MOOCs by the instructors in educating the learners. Libraries need to be more collaborative with the other service departments of the universities such as information superhighway, writing service, etc. to provide more rationalized support to both the Teacher and the students (Wu, 2013).

Kaushik & Kumar, (2016) have emphasized the proficiency in copyright and licenses of educational resources. As MOOC is a new learning platform the things related to, how to effectively utilize it without violating any copyright and proprietary laws are needed to be analyzed by the librarians. The staff is required to give more attention to the fair use of such resources and educate themselves more in copyright and license management. In the absence/inadequacy of such knowledge by the librarians the MOOC course will suffer, it can neither be developed nor can be used effectively for learning by the students and faculties. Wang, (2017) has focused on the quality of staff in the libraries. For delivering MOOC services to the users the librarians and other such professionals are needed to be proficient with MOOC pedagogy and teaching methods. The skills which are needed to be developed are (1) MOOC publicity among the masses; (2) Creation of an expert team purely carrying out MOOC support; (3) Lack of eagerness to learn new MOOC skills; (4) Quality of the professionals need enhancement to match up with the MOOC setup.

According to Elliott & Fabbro, (2015) open access and open educational resources (OER) are also gaining significance and are spreading awareness among the educational institutes, especially in higher education. These resources are mainly free, peer-reviewed, open to anyone, and can bring innovative changes in standardizing the scholarly resources to every learner. For any academic library, its prime motive is to offer assistance to its parent organization in facilitating research, teaching, and learning activities. OERs are a novel revolution, the academic libraries are still not enough proficient in harnessing these open-access platforms. Libraries will have to do some alterations to their current setup and focus on learning, building, shaping, and publicizing these resources among the learners. This can be done in the form of open resource collection development, providing information literacy programs for its users, and forming tutorials for learners in locating their resources online. OER forms a very crucial part of online learning and MOOCs. In the absence of these changes, the libraries will be incapable of supporting online/ MOOC learning.

Therefore, to facilitate these supplemental materials for the courses, libraries will have to dedicate themselves to create free, open, and institute-made content and making it reachable to the students through repositories and library websites.

3. Methodology

For assessing the current status of the libraries of private universities for enabling the use of MOOCs a survey was carried out. The questionnaire (Likert scale 1-5) was analyzed from two perspectives. First, the library's point of view highlights the activities mainly copyright services(Lombardo et al., 2018), technological infrastructure facilities (Marrhich et al., 2020), knowledge services (Luan, 2015), mobility (Yang, 2015), support, digital resources(Yanxiang, 2016), library network (Wang, 2017), technical team to support MOOCs (Jie, 2019), a digital platform for MOOCs (Jie, 2019), use of OERs (Yanxiang, 2016), digital course content(Yanxiang, 2016), publicity and promotion of MOOC instruction (Jie, 2019), organizing MOOCs (Jie, 2019), embedded content(Luan, 2015), MOOC management software (Ning et al., 2016) for offering MOOC services. Hence, forming the first hypothesis:

H1- The current setup of the private university academic library is not adequate to support MOOCs as a service.

Second, the library professionals point of view was evaluated, highlighting their deficits in the context of digitization of resources(Yanxiang, 2016), knowledge of OERs (Mune, 2015), high quality technical support for MOOC users (Jie, 2019), knowledge of proctored exams and evaluation for MOOCs(Chen, 2014), strong knowledge of digital technology (Yang, 2015), understanding of MOOC pedagogy (Marrhich et al., 2020), evaluation of MOOCs for suitability as per requirements(Hew & Cheung, 2014), proficiency in English language(Gulatee&Nilsook, 2016), provide advance information services to MOOC users by providing customized information by filtering and selecting data to help the readers(Luan, 2015), regularly do MOOC courses to gain insights into challenges faced by the learners and the instructors (Wang, 2017), preservation of MOOCs as archives (Lombardo et al., 2018), to be able to actively involved in MOOC instruction, participate in the design, production, management, maintenance and statistical analysis of MOOC instruction(Jie, 2019), and, to be able to coordinate between different departments for MOOC integration into curriculum(Wang, 2017).Hence, forming the second hypothesis:

H2- The library professionals are not adequately trained to offer MOOCs as a library service.

To meet the above MOOC parameters, the survey questionnaire was designed considering all these requisites. The data was collected personally through online forms. The research instrument used in the survey was first validated with a pilot study with 50 respondents. The suggestions of the research supervisor, academicians, and peers were used to improve the questionnaire. A total of 157 responses were received from the library professionals and LAC members of various private universities in Jaipur, Rajasthan. The largest state of the country Rajasthan has done an outstanding job in the field of education too by achieving 2nd position next to Bangalore in the number of higher educational institutes in the country. The state capital Jaipur alone has the maximum ranking in universities in the country with more than 25 universities (all types) making it the most preferred place for pursuing higher education amongst the students(TNN, 2018).The initial part of the questionnaire was focused on collecting the demographic information of age and gender and also checking the very important criteria of whether the respondent has any experience with MOOCs or

not. The Likert scale of 1-5 was used with 1-strongly disagree to 5- strongly agree. The first 15 questions were used to assess the current status of the university libraries for enabling MOOC services. The second half consisted of 13 questions which mainly emphasized knowing the readiness and awareness levels of the library professionals when it comes to providing dedicated MOOC services to the users. The collected data were tested for overall means and one sample T-test using SPSS software.

4. Data Analysis

4.1 Current setup of the university libraries in supporting MOOC services

Mean Values

With the mean calculations as shown in Table 1, it can be observed that MOOC management software (4.25) is the leading factor that will be required for MOOC services. The next parameter which stands second is the copyright services (4.18) and the third important factor is publicity and promotion of MOOC instruction (4.10). These factors will stand first in the order of priorities as compared to the rest when it comes to starting these services in the current setup of the libraries.

Table 1: Means of factors for library setup hypothesis (H1)

	N	Mean	Std. Deviation	Std. Error Mean
Copyright Services	157	4.18	.712	.057
Technological Infrastructure Facilities	157	4.04	.861	.069
Provide Knowledge Services instead of Information Services	157	4.03	.869	.069
Mobility	157	3.93	.928	.074
Support services	157	4.01	.747	.060
Digital Resources	157	3.89	.862	.069
Library Network	157	3.99	.927	.074
Technical Team to Support	157	3.87	.961	.077
Digital Platform for MOOCs learning	157	3.97	.923	.074
Use of Open Educational Resources (OERs)	157	4.06	.837	.067
Digital Course Content	157	3.97	.884	.071
Publicity and promotion of MOOC instruction	157	4.10	.741	.059
Organizing MOOCs	157	3.99	.859	.069
Embedded content	157	4.08	.824	.066
MOOC Management Software	157	4.25	.896	.072

T-test

One sample T-test shows that all the test items for the library setup have significant t- values at sig = .000. The test results for the T-test for the library setup hypothesis can be found in Table 2.

Table 2: T-test results for library setup hypothesis (H1)

One-Sample Test						
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Copyright Services	20.747	156	.000	1.178	1.07	1.29
Technological Infrastructure Facilities	15.101	156	.000	1.038	.90	1.17
Provide Knowledge Services instead of Information Services	14.780	156	.000	1.025	.89	1.16
Mobility	12.562	156	.000	.930	.78	1.08
Support services	16.886	156	.000	1.006	.89	1.12
Digital Resources	12.868	156	.000	.885	.75	1.02
Library Network	13.349	156	.000	.987	.84	1.13
Technical Team to Support	11.290	156	.000	.866	.71	1.02
Digital Platform for MOOCs learning	13.146	156	.000	.968	.82	1.11
Use of Open Educational Resources (OERs)	15.918	156	.000	1.064	.93	1.20
Digital Course Content	13.814	156	.000	.975	.84	1.11
Publicity and promotion of MOOC instruction	18.535	156	.000	1.096	.98	1.21
Organizing MOOCs	14.501	156	.000	.994	.86	1.13
Embedded content	16.465	156	.000	1.083	.95	1.21
MOOC Management Software	17.453	156	.000	1.248	1.11	1.39

4.2 Training of library professionals for supporting MOOC service

Mean Values

With the mean calculations as shown in Table 3, it can be observed that the library professionals are currently not trained adequately for offering MOOC services to library users. The mean values are very high for most of the test items. But comparatively, proficiency in the English language (4.25) and evaluation of MOOCs for suitability as per curriculum requirements (4.25) is the highest rated skills required from the library professionals, followed closely by, advance information services (4.24), preservation of MOOCs in library archives (4.24), and active involvement in MOOC instruction (4.24). These issues will stand first in order of priority as compared to the rest when it comes to the training of the library professionals for offering MOOC services in the current setup of the libraries.

Table 3: Means of factors for library professionals' hypothesis (H2)

	N	Mean	Std. Deviation	Std. Error Mean
Collection of Open Educational Resources (OERs)	157	4.13	.885	.071
High quality technical support for MOOC users.	157	4.13	.785	.063
Proctored examination and evaluation	157	4.20	.766	.061
Strong knowledge of digital technology	157	4.10	.846	.067
Understanding of MOOC pedagogy	157	4.16	.703	.056
Evaluation of MOOCs for suitability as per requirements	157	4.25	.598	.048
Proficiency in English language	157	4.25	.713	.057
Advance information services	157	4.24	.683	.055
Regularly do MOOC courses	157	4.18	.775	.062
Preservation of MOOCs as archives	157	4.24	.674	.054
Actively involve in MOOC instruction	157	4.24	.708	.057
Coordinate between different departments	157	4.22	.701	.056

T-test

One sample T-test shows that all the test items for the library setup have significant t- values at sig = .000. The test results for the T-test for the library professional's hypothesis can be found in Table 4.

Table 4: T-test results for library professional's hypothesis (H2)

	One-Sample Test					
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper	
Collection of Open Educational Resources (OERs)	16.051	156	.000	1.134	.99	1.27
High quality technical support for MOOC users.	18.091	156	.000	1.134	1.01	1.26
Proctored examination and evaluation	19.698	156	.000	1.204	1.08	1.32
Strong knowledge of digital technology	16.232	156	.000	1.096	.96	1.23
Understanding of MOOC pedagogy	20.672	156	.000	1.159	1.05	1.27
Evaluation of MOOCs for suitability as per requirements	26.286	156	.000	1.255	1.16	1.35
Proficiency in English language	21.938	156	.000	1.248	1.14	1.36
Advance information services	22.781	156	.000	1.242	1.13	1.35
Regularly do MOOC courses	19.160	156	.000	1.185	1.06	1.31
Preservation of MOOCs as archives	23.101	156	.000	1.242	1.14	1.35
Actively involved in MOOC instruction	21.857	156	.000	1.236	1.12	1.35
Coordinate between different departments	21.748	156	.000	1.217	1.11	1.33

5. Discussions

The survey results of the current study confirm both the hypotheses about the current status of the private university library for offering MOOC services to its users. This can be validated from the positive t-values at a significance level of .000. The library's services, infrastructure, and skill set of the library professionals

are not adequate to satisfactorily provide the MOOC services. In this study, the recent relevant literature on MOOC-based library services has been studied to identify the necessary library services and infrastructure attributes, and the expectations from the library professional to draft the questionnaire for evaluating the hypotheses in this research.

The library setup hypothesis (H1) shows that copyright services for the reading resources used in MOOCs, the requirement of a MOOC management software for managing the individual requirements of the users and the instructors, publicity and promotion of the MOOC-based instruction among the university students, the requirement of embedded content for the MOOCs, where the relevant links to the digital resources to assist the learners, and use of open educational resources (OERs) for the MOOCs are ranked highest in the survey. Interestingly, all the items included in the survey schedule score high, with a very small difference in their mean values. Hence, it would be fair to conclude that, the Indian private university libraries need to work on all the fifteen aspects deliberated in this study, to offer meaningful MOOC services to library users.

Recent studies like Upneja (2020) have shown that Indian library professionals are unable to participate in the OERs movement. The major reasons identified for this were lack of institutional support and policy for the OERs and also the lack of awareness amongst the library professionals. Pillai (2018) has also suggested that Indian libraries need more funding for developing ICT infrastructure and technology-enabled services in the university libraries. The library professionals need awareness programs, short-term courses, in-house training programs, workshops, seminars, etc. to increase technology awareness. This study also corroborates these findings with the second hypothesis (H2) in the MOOCs context. All the thirteen parameters adopted from the MOOC literature used to test the hypothesis (H2) showed very high mean values.

This study is limited to the private universities in the Jaipur region, to understand the general condition of private universities in India. The effect of gender, age, and qualification of the respondents was not considered while making assessments.

6. Scope and Limitations

This research has been done in the Indian perspective, but such a study can also prove useful for other developing nations, where the higher education system faces similar challenges. Further studies in other educational systems in other countries would increase the applicability of this research. The findings of this research can be explored more for planning and forecasting of academic libraries in the university setups. Studies can be done to explore the roles and preparation of library professionals for offering MOOC services to library users. Also, the possibility of outsourcing essential library services like connected mobile devices, cloud computing servers, MOOC management software etc. need more research. As discussed above, the study has been done in the Jaipur region, and the findings have been extrapolated for the Indian educational system. Studies covering more geographical regions of the country, with larger sample size may increase the accuracy of the findings, or could add more dimensions to the study.

7. Conclusions

A survey conducted on the library advisory committee members and library professionals of selected private universities in the Jaipur region, for understanding the readiness of their libraries and library professionals to offer MOOCs to the university students and instructors (users) reveals that there are fundamental gaps in the library system, which are acting like barriers towards efficient MOOC based curriculum and MOOC education in Indian private universities. The following key areas have been identified from the extant literature on MOOCs for adoption in library setups, where currently the Indian private universities are not adequately prepared: Copyright services to coordinate with the content providers, publishers, and databases for use of digital content in the MOOCs for its users. Sufficient technological infrastructure facilities for MOOC users, which would include access to high-speed internet, cloud storage, interactive library website, computer terminals, etc. To provide knowledge services for MOOC users, such as relevant reading material, problem-solving with instructors, selection of appropriate courses, self-help questions, etc. Providing access to resources on users' mobile devices. Technical support services for MOOCs such as safe access to content on personal devices, remote access, and cloud storage of reading materials. Making digital resources available to MOOC users, which involves the use of library networks and inter-library access to content. Use of digital platform for hosting all university-approved MOOCs, course content, discussion platforms, and proctored evaluation. Maximizing the use of OERs for MOOCs, to avoid copyright and legal issues arising from the use of proprietary resources. Publicity and promotion of MOOCs amongst university students. Working with instructors and resource providers to create embedded content for users.

When it comes to the staff and library professionals the following parameters are expected to be met by them for delivering MOOC services to their users. They are desired to be proficient in the skill of digitization of resources for the easy availability of unused physical collection due to its non-availability in digital forms. Enhance the knowledge and right use of accessible OERs without violating any copyright licenses, so that a proper collection of such free resources can be made available to its desired users. To become trained in providing high-quality technical support which includes not only the basic tasks but the additional new activities of working in various multimedia, IT, etc. To develop competency in conducting proctored exams and evaluations for MOOCs. Enhance the knowledge of digital technology. To comprehend MOOC pedagogy for better facilitation of services to the course users. Assess the MOOCs for suitability as per the requirements of the parent organization. To improve their English language skills for better understanding and usability of MOOCs. Providing customized and advanced information to individual MOOC users, using data mining and data filtration techniques. To undertake MOOCs on themselves, to understand the challenges faced by the MOOC users, and gain insights on the issues brought forward by instructors and users. Preserving MOOCs into usable archives in the university repository. To participate in MOOC instruction, development, and management. Also, to coordinate with the different university departments for MOOC integration into the curriculum.

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