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September 2020

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Kaushik, Anna Dr., "Literature on massive open online courses (MOOCs) and library and information science: an analysis" (2020). *Library Philosophy and Practice (e-journal)*. 4210.

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Literature on massive open online courses (MOOCs) and library and information science: an analysis

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Abstract

Massive open online courses (moocs) concept has become a hot topic in all disciplines. Therefore, different types of literature on massive open online courses are producing in various disciplines including library and information science domain. Thus, this study aims to analyse the literature produced on massive open online courses (moocs) and library and information science from January 2008 to December 2019. The results of the study revealed that the 2013 year noted as a most productive year, most of the literature contributed by the single author and the United States of America found the leading country in terms of producing literature on the subject. This study may be useful for those users who are looking for the growth of the literature on massive open online courses and library and information science domain at one place for various purposes.

Keywords- Massive open online courses, library and information science, literature, EBSCO library and information science source, MOOCs, library, analysis, growth of the literature.

Introduction

Nowadays, at the worldwide level, online learning has become the most popular and effective medium among the users due to the advent and increasing use of internet technologies, open-access tools, platforms and environment, mobile devices, lack of time and so on reasons. Online learning is being deemed as an alternative system for educating and learning the users wherein the users can learn their choice- based courses with facilities of anywhere and anytime learning. In the online learning sphere, massive open online courses (moocs) evolved as a miracle online learning pedagogy which facilitates the users to take part of any course with the facilities of anywhere and anytime learning even without the requirement of any age bar, caste bar, geographical constraints and without any prerequisite qualification as well. Dave Cormier from the University of Prince Edward Island and Bryan Alexander from the National Institute of Technology in Liberal Education coined the term "massive open online course (mooc)" (McAuley et al., 2010). A massive open online course can be defined as an online course that builds with a variety of resources, made available publically, for the large numbers of participants, having assessments and accreditation facilities and without any prerequisite qualifications. Since then, massive open online course concept is using in almost all disciplines including in the library and information science domain. Resultant, the library and information science professionals are fascinating much towards massive open online courses (moocs) phenomena and getting involved themselves in diverse ways. The library and information science professionals are not only started to produce the scholarly articles, writing books, book review and conferences in library and information science-related journals published from national and international publishers and agencies at worldwide level but also conducting research on massive open online courses (moocs) and library and information science domain on diverse issues. Thus, through this study, an attempt is made to discover the literature published by the library and information science professionals on the subject in library and information science journals in different formats at a worldwide level.

Literature review

Different studies carried out on the literature on massive open online courses (moocs) and variant aspects of the different disciplines. Liyanagunawardena, et al. (2013) conducted a systematic review of the literature published on massive open online course using five databases like ISI Web of knowledge, Proquest, JSTOR, IEEEExplorer and Scopus and also claimed that this study was a first systematic review study on the massive open online courses. Lambert (2020) systematic reviews the literature published on massive open online courses and student equity and social inclusion during 2014-2018 and this study further pointed out the gaps in the literature and research directions in the future. Rolfe (2015) reviewed the literature on the social-ethical aspects of massive open online courses and emphasized that quality research needs to be conducted on the subject using emerging approaches and pedagogies. Sanchez-Gordon and Luján-Mora (2018) examined systematic literature on the accessibility of massive open online courses to the researchers from 2008 to 2016 using four-stage methods and found that accessibility of massive open online courses will be beneficial to the researchers. Lee et al.(2019) systematically reviewed the literature on self- regulated learning aspects of the massive open online courses and found that self-regulated learning plays a positive role to the users in learning through massive open online courses. Veletsianos and Shepherdson (2016) highlighted the gaps in literature found on massive open online courses in the period of 2013 to 2015 by conducting an empirical and systematic analysis. This study also analysed the literature on massive open online courses through different angles. Bezerra and Silva (2017) reviewed the literature on drop rates in the massive open online courses (moocs) using four databases like Springer, Science-direct, ERIC and ACM digital library and discovered twenty-four reasons of the drop rates in the MOOCs setting. This study also suggested ways to prevent drop rates in massive open online courses. Zhu et al. (2018) conducted a systematic review of the literature published on research methods on massive open online courses from October 2014 to November 2016 using 146 studies and found that users used quantitative, qualitative, mixed research methods. Quiliano-Terreros et al. (2019) reviewed the literature on how to judge the quality and effectiveness of massive open online courses from 2012 to 2017 using Scopus and Web of Science databases. Sallam et al. (2020), through a systematic literature review, mapped the research trends in language massive open online courses (LMOOCs) through different angles. This study also pointed out that the language massive open online course is an emerging field to do serious research and studies. On the other hand, very few studies were discovered on the reviewing of the literature on massive open online courses and library and information science area. In which, Kaushik (2018) presented genesis of massive open online courses concept in detail by using a survey and discovered that the massive open online course phenomena are useful in the library and information science domain. Massis (2013) reviewed the literature on massive open online courses and library and information science domain and discovered that massive open online course provides excellent opportunities to the library and information science professionals in diverse ways. Kaushik (2015) reviewed the literature on massive open online courses and library and information science and also presented the gapes on the subject. As such, no study was found on analysis of the literature on massive open online courses and library and information science in the period of January 2008 to December 2019.

Methodology and limitation

The following criteria were used to conduct this study:-

1. EBSCO Library and information science source database, Boolean operators, and search term "moocs or massive open online courses and library" were used for searching and identifying the literature on massive open online courses and library and information science domain.
2. Literature published from January 2008 to December 2019 in the English language only was included in this study.
3. Articles, book reviews and conference proceedings were included in this study.

By using above said criteria, in total 176 documents were discovered, which deeply examined and categorized into categories like articles (155), books reviews (8) and conference proceedings (13) that showing in table no. (1). Found 155 articles, 8 book reviews and 13 conference proceedings were recorded in Microsoft Excel spreadsheet using field like titles, authors, number of authors, journals, country of journals, publishers, country of publishers, categories of documents, themes etc. to analysis and interpretation data from different angles. This study is confined to the results produced by EBSCO Library and information science source database using the search term "moocs or massive open online courses and library" that published from January 2008 to December 2019 in the English language only.

Objectives of the study

This study has the following objectives:-

- To investigate the growth of literature published on massive open online courses (MOOCs) and library and information science domain.
- To examine the authorship patterns and thematic distributions of articles published on the subject.
- To identify the leading journal, publisher and country that published the highest number of articles on the subject.
- To examine the leading country, year and authorship patterns that produced the highest number of book reviews and conference proceedings on the subject.

Analysis of the results

The collected literature on massive open online courses and library and information science analysed in the following way:-

Table no. (1) - Types of documents	
Type of documents	No. of documents
Journal/ magazine Articles	155
Conference papers	13
Book review	8

Table no. (1) provides the information regarding the type of documents published on massive open online courses (MOOCs) and library in which (88%) articles, (7%) conference papers and about (5%) book review discovered from this database. As such, in contrast to the book reviews and conference proceedings, articles on massive open online courses (MOOCs) and library found publish in large numbers.

Year-wise growth

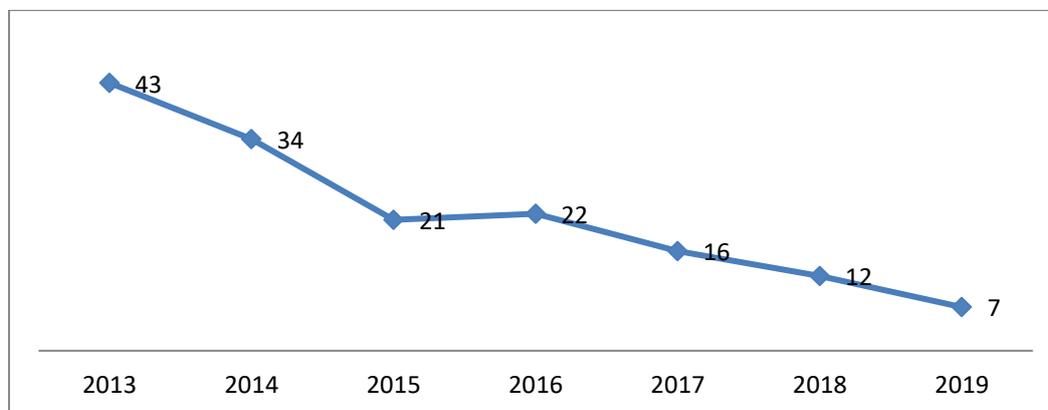


Figure no. (1)- Year-wise growth of articles

In total 155 articles as mentioned in figure no. (1) , maximum articles almost (28%) on massive open online courses (MOOCs) and libraries published in the 2013 year. The 2013 year also noted as most productive on the subject. It is imperative to mention that none article published in five consecutive years ranging from 2008 to 2012 while massive open online courses (MOOCs) concept emerged in the year 2008 but 2012 year was declared as MOOCs year by “New York Times” (Pappano, 2012). Between the two years 2015 and 2014, the very slight difference observed in terms of the number of articles published. While, at the minimum level, only almost (5%) articles published in the 2019 year on the subject.

Journal- wise distribution

Table no. (2)- Journal-wise distribution			
Name of Journals	No. of articles	Country of the journals	Ranking
Library Journal	16	USA	1
CILIP Update	9	United Kingdom	2
Computers in Libraries	7	USA	3
inCite	6	Australia	4
Against the Grain	5	USA	5
American Libraries	5	USA	5
International Journal of Information Dissemination and Technology	5	India	5

In total 155 articles as listed in table no. (2), maximum articles (10%) published in Library Journal, followed by CILIP update with about (6%) articles, Computers in libraries with nearly (5%) articles and inCite with about (4%) articles that got first, second and third ranks respectively. While three journals, such as Against the grain, American libraries and International journal of information dissemination and technology published equal (3%) articles on the subject. It is interesting to note that most journals that produced articles on massive open online courses (MOOCs) and library belonging to the United States of America in contrast to the other journals belonging to countries like the United Kingdom, Australia and India. The rest of the journals found published less than (3%) articles on the subject.

Authorship pattern

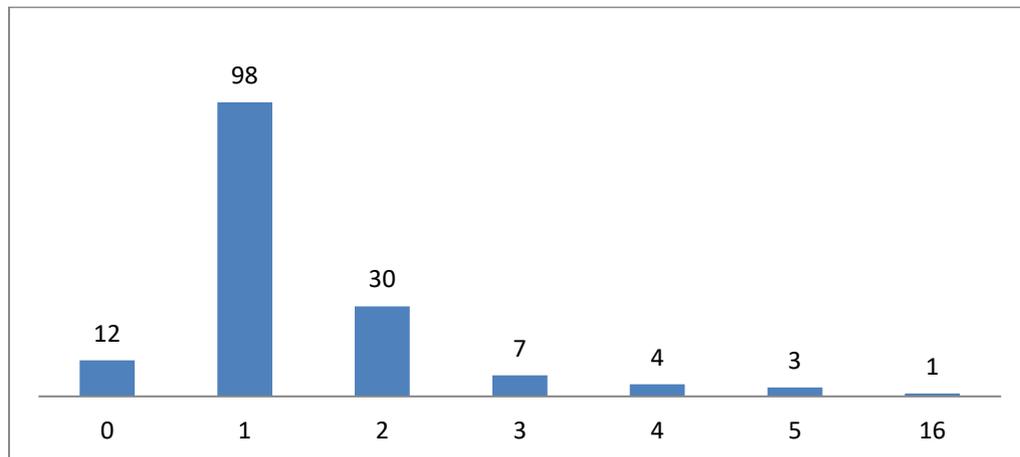


Figure no. (2) - Authorship pattern

Figure no.(2) depicts the number of authors who contributed articles on Massive open online courses (MOOCs) and library in which most of the articles (63%) published by the single author followed by two authors with (19%) articles. It is surprised to note that about (8%) articles did not have author information means these articles published on the subject without any author. Rest of the articles published in ranging from three to sixteen authors in which only about (1%) articles published by sixteen authors on the subject.

Publisher-wise distribution

Name of Publisher	No. of articles	Country of Publisher	Ranking
Media Source, Inc.	19	United State of America	1
Taylor & Francis Ltd	16	United Kingdom	2
Emerald Publishing	13	United Kingdom	3
American Library Association	12	United State of America	4
Information Today Inc.	10	United State of America	5

Table no. (3) shows the number of articles published by the different worldwide publishers on massive open online courses (MOOCs) and library area, in which the majority of articles (12%) published by Media source, inc. which published in the United States of America. But, the slight difference ranging from three to one article noted among the top five publishers as listed in table no. (3). But, among five top publishers, the majority of articles were published from publishers that belong to the United States of America in comparison to publishers that belong to the United Kingdom. The rest of the publishers discovered from this database published less than (6%) articles on the subject.

Thematic distribution

Thematic distribution	No. of Article
MOOCs: concept and applications	24
MOOCs and distance education	10
MOOCs and e-learning	9
MOOCs and Information literacy	4
MOOCs and Librarians	12
MOOCs and Libraries	52
MOOCs and Library and information science association	4
MOOCs and Library and information science education	11
MOOCs and Library and information science profession	10
MOOCs and literature review	3
MOOCs and marketing	2
MOOCs and Policies	4
MOOCs and preservation	2
MOOCs and serial	4
MOOCs and social media	4
Grand Total	155

Table no. (4) shows the thematic distribution of the articles published in different journals on the massive open online courses (MOOCs) and library and information science in which most of the articles almost (34%) published on "MOOCs and libraries" theme, followed by "MOOCs : concepts and applications" theme with (15%) articles. Kaushik and Kumar (2015) mapped the periodical literature published on massive open online courses (MOOCs) and library and information science from 2008 to 2015 and found that most of the articles published on "MOOCs and libraries" theme also. In all sixteen themes, as listed in table no. (4), in terms of percentage of the articles published on the subject, a slight difference noted among the three themes namely MOOCs and librarians, MOOCs and library and information science education and MOOCs and e-learning. While on the two themes like MOOCs and distance education and MOOCs and library and information science

profession published in the equal percentage of articles. Rest of the nine themes, less than (3%) articles published on the subject.

Book reviews

Article titles	Journal name	Country of Journal	Year	Number of authors
MOOCs and Libraries.	Law Library Journal	USA	2016	Single author
MOOCs.	Library Journal	USA	2014	Single author
To MOOC or not to MOOC: how can online learning help to build the future of higher education (Chandos information professional series).	Australian Library Journal	Australia	2016	Single author
Massive open online courses: the MOOC revolution.	Choice: Current Reviews for Academic Libraries	USA	2015	Single author
MOOCs in higher education: institutional goals and paths forward.	Choice: Current Reviews for Academic Libraries	USA	2016	Single author
MOOCs, high technology, and higher learning.	Choice: Current Reviews for Academic Libraries	USA	2016	Single author
Higher Learning and the American Academic Library in the Twilight Era of Neoliberalism.	Progressive Librarian	USA	2018	Two authors
MOOCs and Libraries.	Journal of Electronic Resources Librarianship	United Kingdom	2016	Single author

In total eight book reviews as depicted in table no. (5), most of the book reviews published in the 2016 year, by the single author and in journals that published from the United States of America in comparison to other countries such as the United Kingdom and Australia. Though, all book reviews as listed in table no. (5) published from 2014 to 2018, but none book review was published in the 2017 year. Less productivity was noted in the year 2014, 2015 and 2018, respectively. It is interesting to note that out of eight book reviews, three book reviews published in a journal namely "Choice: current reviews for academic libraries". While, among the eight book reviews, only one book review published by two authors.

Conference proceedings

SN	Titles of articles	Venue	Published in Journals	Year	Journal country	No. of authors
1.	Enhancing information literacy via mooc and library's i-space.	The 39 th Annual IATUL Conference, Oslo June 17 th - 22 nd 2018, OsloMet – Oslo Metropolitan University, Campus Pilestredet., (Norway)	IATUL Annual Conference Proceedings	2018	USA	Single author
2.	Are you MOOC-ing yet? A review for academic libraries.	Capitol Plaza Hotel and Convention Center – Topeka, KS College & University Libraries Section of KULS 1001 South Cedar Street #59 Ottawa KS 66067-3341 United States of America (2013), (USA)	Kansas Library Association College & University Libraries Section Proceedings, 2013	2013	USA	Two authors
3.	All about MOOCs: online learning is alive and well.	The growth of Massive Open Online Courses and online learning sponsored by the Charleston Conference that was held in Charleston, South Carolina on November 3, 2016, (USA)	Against the Grain, Jun2017	2017	USA	Single author
4.	MOOCs and libraries: the good, the bad and the ugly.	Open University Library in partnership with OCLC Research and the British Joint Information Systems Committee (JISC) in central London, England in December 2013, (United Kingdom)	SCONUL Focus	2013	United Kingdom	Single author
5.	Driving towards new frontiers.	2012 Annual Fall Conference of the Kansas Library Association--College and University Libraries Section held in Dodge City, Kansas (USA)	Kansas Library Association College & University Libraries Section Proceedings, 2013s	2013	USA	Single author
6.	Reports of meeting - ARLIS 2013, WILU 2013 and the 32nd annual Charleston conference.	Not Your Old Ladies' Pasadena" conference by the Art Libraries Society of North America (ARLIS/NA) in California and the 2013 " (USA)	Against the Grain	2013	USA	No author (Against the Grain)

7.	Developing issues in licensing: text mining, MOOCs and more.	Developing Issues in Licensing: Text Mining, MOOCs, and More," took place on April 25, 2013 at Northeastern University in Boston, Massachusetts.(USA)	Serials Review	2013	United Kingdom	Three authors
8.	Topical scopes of digital and data curation curricula.	Information Science with Impact: Research in and for the Community - Proceedings of the 78th ASIS&T Annual Meeting, ASIST 2015, St. Louis, Missouri, Missouri, USA, October 6-10, 2015 (USA)	Proceedings of the Association for Information Science & Technology	2015	USA	Single author
9.	Reports of conferences, institutes, and seminars.	Association of College and Research Libraries (ACRL) Conference, held April 10-13, 2013 in Indianapolis, IN (USA)	Serials Review	2013	United Kingdom	Three authors
10.	Conference corral.	Association for Library and Information Science Education (ALISE) 14TH annual conference which was held in Philadelphia, Pennsylvania from January 21-24, 2014 (USA)	Online Searcher	2014	USA	Single author
11.	Annual meeting of the society for scholarly publishing.	36th Annual Meeting of the Society for Scholarly Publishing (SSP) held in San Francisco, California from June 5-7, 2013	European Science Editing	2013	United Kingdom	Single authors
12.	Librarians claim their rights at Charleston.	33rd annual Charleston Conference that was held in New York from November 6-9, 2013 (USA)	Information Today	2013	USA	Single authors
13.	Libraries can re-imagine learning.	"Re-Imagining Learning: A New Opportunity for Libraries" which will be held on November 13, 2014 in London, England, will be presented by The Chartered Institute of Library and Information Professionals (United Kingdom)	CILIP Update	2014	United Kingdom	No author (Association on CILIP)

Among the total thirteen conferences as listed in table no. (6), the majority of conferences proceedings held in the United States of America, in the 2013 year and published by the single author, in the journals that published from the United States of America in contrast to other countries like the United Kingdom. Rasheed et al. (2019) study through literature review also found that most of the research on massive open online courses conducted in the United States of America. It is surprising to note that two conference proceedings, as mentioned in table no. (6) at serial numbers 6 and 13 did not contain author information means not published by any author, but these are either directly published by journal name or by the concerned library association, respectively.

Conclusion

This study maps the literature covered by the EBSCO library and information science source database on massive open online courses (moocs) and library and information science domain. This study covered different aspects of the literature on the subject and discovered that majority of articles, book reviews and conference proceedings were published from journals that the United States of America by single authorship pattern and "MOOCs and libraries" theme. This study also pointed out the gaps and scope in the literature on the subject. Through this study, it was found that that United States America is the leading country in terms of producing literature on the subject. The 2013 year was found as the most productive year in terms of producing literature on the subject but very less rate of producing the literature on the subject discovered in the 2019 year. Thus, it is suggested that the library and information science professionals should maintain the momentum of the production of the literature on the massive open online courses and library and information science domain by writing articles in the leading journals, producing books and conducting conferences, workshops etc. on the subject. Through this study, the library and information science professionals and scholars may be found literature growth on the massive open online courses (moocs) and library and information science domain at a glance which can be used for diverse purposes.

Findings

The following findings were discovered on the base of the results of the study:-

- The year 2013 noted as the most productive year in terms of number of articles published on the massive open online courses (MOOCs) and library.
- Maximum number of articles on massive open online courses (MOOCs) and library published in Library Journal that publishing from the United States of America.
- Maximum number of articles on Massive open online courses (MOOCs) and library published by single authorship.
- The majority of publishers that published a large number of articles on the subject belong to the United States of America only.
- The large number of articles published on "MOOCs and libraries" theme.
- A large number of book reviews on the subject were published in 2016, by the single author and in journals published from the United States of America.
- Most of the conference proceedings on the subject were published in 2013, by the single author and in journals that published from the United States of America.

Suggestions

The following suggestions were made on the basis of the findings of the study:-

- It is suggested that the library and information science professionals should produce a good number of articles on the subject every year and special issue on MOOCs and library and information science may be published by the leading journals.
- It is suggested that the library and information science professionals should publish more articles in different library and information science journals that published worldwide level.
- More articles on Massive open online courses (MOOCs) and library and information science domain may publish in other authorship patterns in the future.
- It is suggested that more articles on massive open online courses (MOOCs) should publish through different publishers that belong to diverse countries of the world.
- More articles may be published on the Massive open online courses (MOOCs) and other library and information science themes in the future.
- It is suggested that the library and information science professionals should publish book reviews leading journals of library and information science area for the wide publicity of books.
- It is suggested that the library and information science professionals should publish conference proceedings in the leading journals of the library and information science area.

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