The Role of MOOC in Higher Education during Coronavirus Pandemic: A Systematic Review

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*Abstract***:** During the novel Coronavirus pandemic (Covid-19), all aspects of life have been affected by this fatal disease including education sector. Educational institutions in most countries have been closed and directed to shift to e-learning. In most cases Higher Education Institutions (HEIs) were not prepared to deliver their entire programs online. Thus, to reposition themselves some HEIs have headed for MOOC to help them progress and survive. Therefore, the main objective of this study is to identify the role of MOOC during Coronavirus pandemic in the light of published literature. In addition, this study answers the question "what is the role of MOOC in higher education during coronavirus lockdown?". Data were collected from different sources such as Google Scholar, Mendeley, Sage, ScienceDirect, IEEEXplore, and ResearchGate. Categories such as "MOOC in Higher Education and Coronavirus", "MOOC and Covid-19" were part of the selected parameters. 21 articles were found to be relevant to the purpose of the study. The findings reveal a significant role of e-learning such as MOOC during the outbreak of covid-19. Since there is no sufficient research on this field due to the novelty of the pandemic; therefore, some researchers in the reviewed articles recommend further research in this area.

*Key Words***:** Massive Open Online Course (MOOC), Coronavirus, Covid-19, Higher Education, Lockdown

Introduction

The world health organization (WHO) declared Coronavirus (Covid-19) disease as a pandemic in 12th March 2020. Most of students at schools and universities have been quarantined since then. Therefore, majority of HEIs tried to seek for the right platform to establish an appropriate e-learning to empower educational process for distance learning (Kindrat, Savyak, Melnychuk, Kryvoviaz, Kindrat, & Ersteniuk, 2020). Technology according to Wankhede (2020) was a positioning solution to problems that occurred due to coronavirus. Technology was a constructive way that tackle the problem of teaching and learning during difficult situations.

Sood (2020) stated that Covid-19 has forced people to an unprecedented shift to online learning at universities around the world. Duke university for example was one of the first HEI to make use of MOOC in response to Coronavirus. Management in Duke university realized that referring to high quality lectures in MOOC is more viable option than improvising online lectures. The head of Global Communication in Coursera has mentioned that hundreds of colleges around the world have incorporated Coursera offers of free access during this period of time. On the other side, Udacity has announced that all of their nanodegree programs will be

free for one month during the pandemic to help students to develop new skills in response to coronavirus.

Edx has also made most of its courses for free to college partners. On the other hand, Course Central (MOOC aggregator) has mentioned that their website has witnessed a sudden spike in traffic due to people discovery about the importance of MOOC especially during these days (Sood, 2020).

Haber (2020) asserts that schools are shifting their entire programs to online in a wake of Covid-19. These schools faced more challenges than universities who has previously volunteered for MOOC. Haber added that MOOC helps educational institutions to shift these programs to online in less time. It can take few days and weeks to integrate online resources through MOOC rather than months and years.

MOOC is not just considered as an alternative to traditional online learning, but it provides the opportunity for educators to explore and navigate MOOC for content and inspiration. There are thousands of videos, assignments, activities, and readings in MOOC that can be integrated by teachers in their courses (Haber, 2020). In India for Example, their MOOC platform "SWAYAM" is acknowledged as a program, and credits obtained from the course are recognized towards degrees in many Indian universities. This has decrease the interruption in learning for many students in India during coronavirus pandemic lockdown (Parthasarathy, 2020).

The current situation revealed that if educators have been trained and prepared on E-learning well before the pandemic, then there will be less time spent to apply it. According to A. (2020) currently universities cannot afford spending more time to train teachers and students on digital pedagogy. Therefore, in order for digital literacy to bridge the distance between teachers and students, digital pedagogy shouldn't be neglected.

Though obtaining technology remains an issue in rural areas in most countries; however, the attempts to expand its usage and to focus on the importance of its availability become more required during the pandemic. MOOC is more flexible platform because it serves a mass number of students in addition of the ability of students to complete the course by their own pace. (Wankhede, 2020)

Review of Literature

MOOC is the acronym for "Massive Open Online Course". In fact, MOOC definition is derived from several concepts that are available in education. These concepts are openness, massive connection, and e-learning (Aparicio, Oliveira, Bacao, & Painho, 2019).

To start with the definition that Zawacki-Richter, et al. (2018) stated, MOOC is "an open, participatory, distributed, and supporting lifelong network learning". While Almuhanna (2019) has a wider description of MOOC in which she defines it as "free, open registration online courses for anyone who has internet access, with no fees, prerequisites or formal accreditation and with publicly shared curricula and open-ended outcomes". On the other hand, Rivera, & Ramirez (2015) focus more on the content of MOOC when defining it as "a new way of online education that includes virtual interaction, feedback, discussion, evaluation, and artifacts".

Tarmuji, Nassir, Ahmad, Abdullah, & Idris (2018) simply define MOOC as "a system that can manage unlimited participants and open access through the web".

Badi, & Ali (2016) consider MOOC as a new method that enables a large number of students to learn for free through online courses that are offered by the best universities in the world. According to Mohamed, & Hammond (2017) MOOC are known for:

- Massive: in terms of number of learners
- Open: Absence of restriction on registration, most MOOCs are free.
- Online: using the internet in courses' delivery.
- Course: clearly defined learning objectives, usually with start and end dates.

The main purposes of creating MOOC is to democratize learning and to make it fairer for everyone around the world to learn (Ruiperez-Valiente & Reich, 2018). Lindgren, Kunc, & Coper (2017) emphasize on the internationalisation of higher education through MOOC since it occurs in a wider and inclusive domain. Almuhanna (2019) claims that because of the continuous development of technology and cloud computing, online learning is moving towards massive open online courses. MOOC according to Almuhanna (2019) can provide better and more opportunities than traditional learning.

When talking about to whom MOOC is offered, Jansen, & Konings (2018) assert that MOOC opens new opportunities for millions of people. They also confirm that MOOC is the future of higher education and will further participate in the continuous professional development. On the other hand, Lindgren, Kunc, & Coper (2017) argue that MOOC can reach participants from war-torn countries (such as Syria), it also reaches people who are unable to attend or participate in traditional education because of cultural, social, health, or work reasons.

The massive feature of MOOC makes the course more capable to offer large-scale learning experiences to a large number of students. Jansen, & Konings (2018) argues that there is a high potential expected to offer MOOC as a complement for existing educational resources instead of replacing traditional approaches. He, Liu, & Zhang (2017) support that MOOC is characterized by a large number of uses and curriculum. They predict that MOOC will be more and more increasingly an effective complementary way to traditional education.

In their study's findings, Annabi, & Muller (2015) realized that the majority of the respondents who have been interviewed believe that MOOC should be incorporated into "flipped learning" to meet students' preference for technology.

Kaushik (2018) affirms that MOOC has gained movement across the globe through different and prominent bodies and higher education institutions who are investing in developing and delivering courses. On the other hand, Annabi, & Muller (2015) classifies the views of researchers in the literature related to MOOC into two categories:

- Mooc changes higher education as we know it.

- Mooc is merely a technological tool that can augment learning without replacing traditional education.

According to Alshahrani, & Ally (2017) the use of MOOC in higher education is still debatable. MOOC as Alshahrani described has been introduced to enhance educational initiatives to innovate education.

Lindgren, Kunc, & Coper (2017) indicated that the motives that encourage students to participate in MOOC are:
● Lifelong learning
● Fun, entertainment, and social experience
● Convenience (compared to restricted traditional education)
● Experience and explore online education.

Rivera, & Ramirez, (2015) see that due to the characteristics of MOOC, it could be used as a good tool to develop digital competences.

He, Liu, & Zhang (2017) highlight that with wider popularity and applicability of MOOC, there is a rising number of global organizations and MOOC platforms that pop up all around the world. Along the same lines, Czerniewicz, Deacon, Glover, & Walji (2016) sees that MOOC created a potential to democratize education through providing access to best courses and educators to those who have internet access. According to Czerniewicz, Deacon, Glover, & Walji (2016), open education practices have gained the attention of researchers since 2007. In their study Czerniewicz, Deacon, Glover, & Walji (2016), concluded that teachers' experience with MOOC prompted them to reuse content in different learning contexts. They added that some teachers tend to reuse MOOC course format to change practices in teaching and develop a "flipped " learning model where MOOC replaces some elements of traditional classroom teaching.

Zhu, Bonk, & Sari (2018) emphasized that there is a lack of research that considers the challenges of MOOC from educators' perspectives. Educators in higher education consider MOOC as an opportunity to reach more learners and users from different and diverse backgrounds.

Zhu, Bonk, & Sari (2018) asserts that instructional design of MOOC can increase learner engagement and promote meaningful learning. There are three key elements in MOOC design from a theoretical perspective, namely:
● Connectivist learning theory.
● Principles of instructional design.
● Self-regulated learning strategies.

In the last 10 years the access to higher education has increased by almost 3%. This makes traditional higher education inaccessible for many students. Ngo (2019) sees that MOOC is the solution for those who are seeking professional learning and personal development. Though the certificate in MOOC is not the same as a degree from colleges; however, MOOC still provides access to world-class education to a large number of internet users.

Guangyong, & Ruolan (2020) emphasized that the large scale of MOOC encourages educators to constantly improve their professional quality.

In fact, Jansen, & Konings (2018) argue that MOOC will not go away. They backed up their view with an example from Germany where there is a proposal to establish a national platform for online learning. This opens the door for governments to play a vital role in enabling innovative learning in education. In spite of this view, Hüther, Kosmützky, Asanov, Bünstorf, & Krücken (2020) concede that the popularity of MOOC has subsided significantly since 2015.

Nonetheless, during coronavirus breakdown MOOCs boomed after near-death as Young (2020) described in his article about the dramatic increase in enrolments and participants in MOOC platforms. In Coursera platform, for example, they witnessed an increase by 10 million new users between the period from mid-March to mid-May 2020 which represents seven times the sign ups of users at the same period in 2019. A similar multiples of enrolments have been reached in both EdX and Udacity platforms. This shows that MOOC attracts more users around the world and stimulates the question of "What is the role of MOOC during this particular situation?".

To the best of our knowledge there are no published systematic review papers that include explicitly or cover the role of MOOC on education during Coronavirus Pandemic. Therefore, the main purpose of this study is to identify the role of MOOC in higher education during coronavirus pandemic lockdown and explore different platforms used by HEIs. The carried out literature review aims at achieving the following objectives:
1.   Identify the role of MOOC in Higher Education during coronavirus pandemic lockdown.
2.   Explore the related papers that address and highlight the role of MOOC during the pandemic lockdown.
3.   Recognize how each paper addresses the role of MOOC during the lockdown.
4.   Identify the best practices of using MOOC by HEIs during the lockdown.

Research questions represent the guidelines for the researcher when conducting a systematic review, and they are considered as a roadmap that assists in reaching the goal. Therefore, the questions of this review study are defined as:
RQ1: What is the role of MOOC in Higher Education during coronavirus pandemic lockdown?
RQ2: How do the papers address the role of MOOC during the lockdown?
RQ3: What is the methodology used by each paper?
RQ4: What are the best practices of using MOOC by HE institutions during the lockdown?
RQ5: What are the most used platforms by HEIs during the lockdown?

Methodology

This paper is a systematic review study in nature. Content analysis is used to explore different articles in the literature, and to identify patterns in those articles that cover the role of MOOC in higher education during the lockdown caused by coronavirus pandemic. For the purpose of searching different databases for related articles, the following keywords were used: MOOC(s), Massive Open Online Course(s), Coronavirus, Covid-19, Pandemic, Lockdown, and Higher Education. To summarize the steps undertaken to conduct the search process Figure 1 displays the description of these steps:

Figure:1
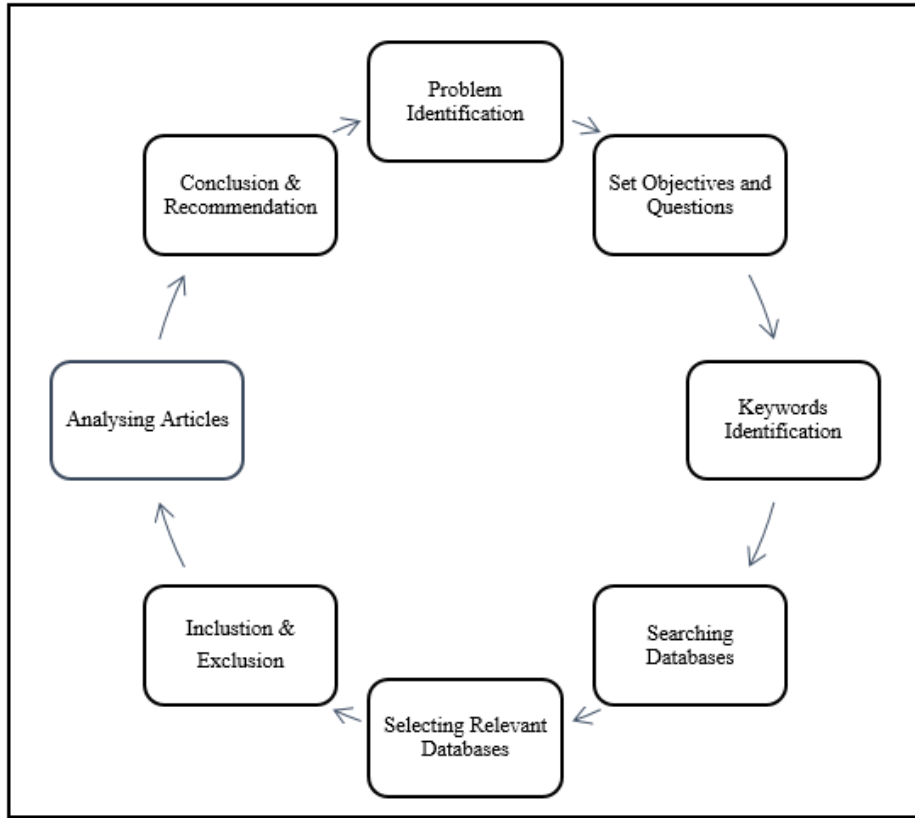
Study Search Framework

Searching the literature

The literature has been searched using different sources namely: Google Scholar, Mendeley, Sage, ScienceDirect, IEEEXplore, and ResearchGate. The selection of these databases was implemented based on the coverage of these sources to sufficient topics on MOOC and Coronavirus. The strings used to search the literature are depicted in table 2 below:

Table:2
Search Strings in the Selected Databases

No.	Search Strings	From	To
1.	"MOOC" AND "Coronavirus"	Jan 2020	Aug 2020
2.	"MOOC" AND "Covid-19"	Jan 2020	Aug 2020
3.	"MOOC" AND "Pandemic Lockdown"	Jan 2020	Aug 2020
4.	"Role of MOOC" AND "Higher Education" AND "Coronavirus"	Jan 2020	Aug 2020

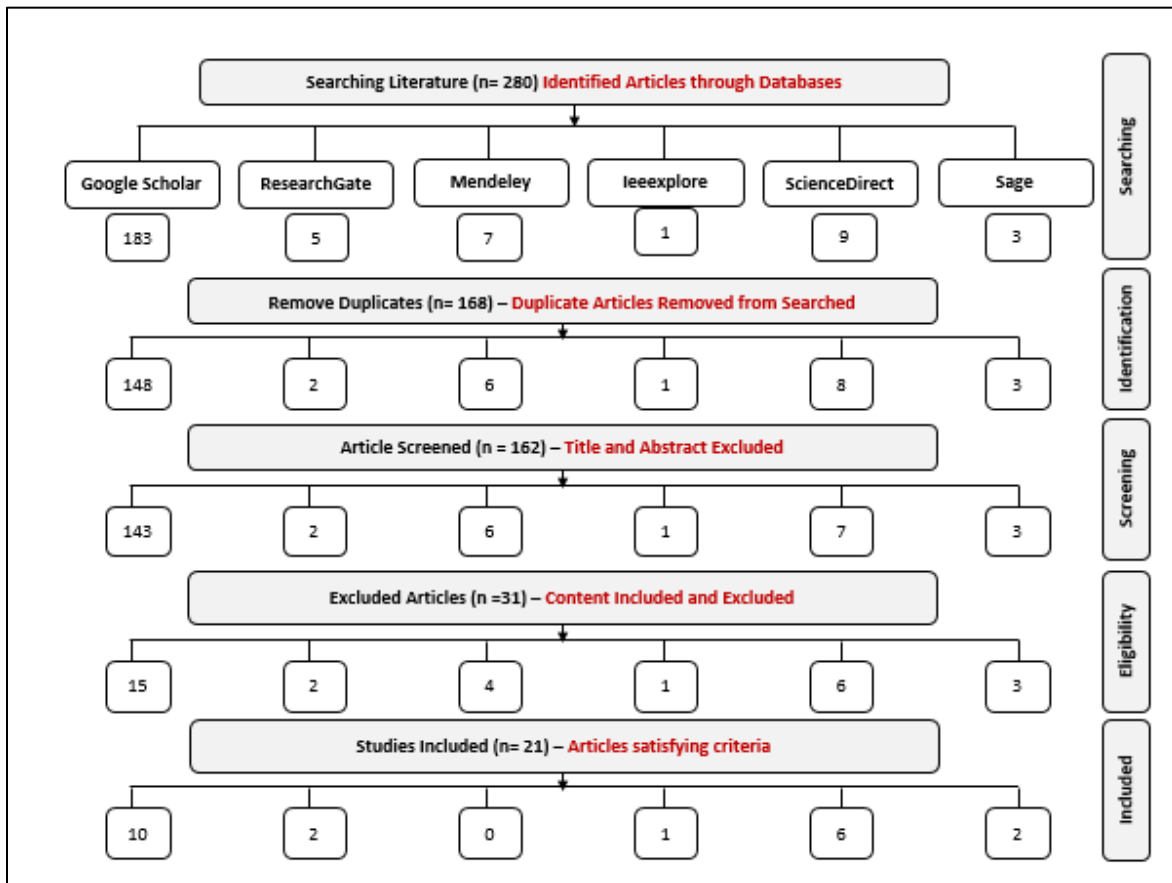*Inclusion/Exclusion Criteria*
In order for the paper to be included in the review, each paper should focus on MOOC in Higher Education during Coronavirus (Covid-19) pandemic lockdown. In addition, this review paper includes the articles that are published during the time when the lockdown of higher education

caused by the coronavirus pandemic occurred (January 2020 until August 2020-the time of writing this paper). The included papers must be written in English language and are published in the above-mentioned sources. "EndNote" software has been used to manage resources such as extracting references by deduplication, year, type of reference, English language, and relevancy. The flowchart in figure 2 depicts the process of reviewing the literature whereas table 2 shows the list of inclusion and exclusion criteria in searching.

Table: 2
Inclusion/Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
2020	before 2020
English language	Other languages
Role of MOOC	Primary or Secondary or General education
Higher Education	SARs or old coronavirus
Coronavirus (Covid-19) pandemic	MOOC Only
Lockdown/shutdown	Coronavirus only
Novel Coronavirus	Covid-19 only

Figure: 2

Flowchart of articles' selection of the systematic literature review

Findings

As can be seen from Figure 2 of the flow diagram, the articles were searched and filtered by the inclusion and exclusion criteria. Articles that have been retrieved by number are: A total of (556) for "Coronavirus and MOOC", (383) for "Higher Education and MOOC and Coronavirus", (234) for "Higher Education Lockdown and MOOC and Coronavirus". A total of (600) articles have been retrieved from the selected databases (Google Scholar, Mendeley, Sage, ScienceDirect, IEEEXplore, and ResearchGate). EndNote software has been used to perform deduplication of articles automatically. By reviewing titles and abstracts of articles around 317 articles were excluded mainly because they are either in different language, topic is not relevant, or have not covered MOOC in the context of higher education lockdown. By applying keywords, inclusion and exclusion criteria, the total eligible articles for this study are 21 articles. These articles have been extracted and analyzed to answer the research questions. Appendix (A) shows the analysis of the information extracted from the eligible papers.

Conclusion

This systematic review research was conducted to identify the role of MOOC in higher education during the pandemic lockdown. It began by setting the period of the selected publications from January 2020 to August 2020 which is the period of Covid-19 outbreak and the lockdown of educational institutions until the writing of this research. To answer the five questions of the research, a set of inclusion and exclusion criteria have been identified and applied to the literature. This includes retrieving articles that are in "English", during "2020", available in the selected databases "Google Scholar, Mendeley, Sage, ScienceDirect, IEEEXplore, and ResearchGate" and include the category "MOOC in higher education during Covid-19 lockdown". The process of screening the retrieved literature resulted in including 21 articles in this research. The articles were analyzed using thematic approach in which relevant information was coded, themes generated and defined, and analysis written up. The results were sought to be The majority of researchers have addressed the role of moon During coronavirus pandemic lockdown as significant in terms of increasing health awareness, enhancing the equality of learning, and used as a supplementary course to an existing online methodology. The main methodologies used by researchers of the reviewed papers vary between reviews, content analysis, experimental studies, quantitative surveys, working group and case studies. Information that highlights the best practice of using MOOC in HE during the lockdown is through using MOOC to support teaching resources, access prestigious universities' courses, and enhance social presence.

While few researchers may agree that MOOC needs more improvements to replace the traditional teaching and learning, most of the other researchers think that educational institutions should follow and use MOOC format in their educational settings describing MOOC as a role model to online learning.

In terms of the most indicated MOOC platforms used as an example in the selected papers, SWAYAM (MOOC of India) has been mentioned in 3 papers, while the other platforms have only been mentioned once. This can be referred to the significant role of SWAYAM in India in which there is a robust process to utilize the technology.

Suggestions and Recommendations

The perspectives of researchers and educators may vary against MOOC whether it is used to replace a program, support existing courses, or blended with other technologies. however, most of the papers agree on the significant role of MOOC in higher education. Some researchers suggest further studies in the field of MOOC, whereas others recommended using MOOC to reach a wider audience to deliver a message similar to what happened during the Coronavirus outbreak. Therefore, future research and practice should focus more on how to tailor the existing online courses to support and reach a wider audience. As it is well known that one of the main issues of MOOC is the high rate of drop out of users. Thus, studies that compare between the dropout rate of MOOC users before and after the pandemic lockdown become important to highlight the factors affecting retention rate amongst students. It is also recommended to conduct studies on using MOOC in a primary education and see how younger learners react to the use of this new technology and to benefit from it in that level of education. Furthermore, more studies can be pursued to investigate the best ways to improve professional development of teachers during emergencies by using MOOC.

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Appendix

(A)

Thematic Analysis of the Shortlisted Papers

No	Google Scholar	Focus of Study	Role of MOOC	Methodology	Best Practice	Platform	How MOOC is used
1.	Chan, (2020)	MOOC is suggested as a research area during Covid-19 impact on education: Online Learning Distance Learning Public Health	One of ten areas suggested to be a theme for future research.	Collecting Abstracts from researchers around the world	Researching MOOC as an alternative distance and online learning approach	Not mentioned	For future studies
2.	Harsha, 2020	online distance learning methods and challenges faced during coronavirus lockdown	Professional Development approach for teachers in Higher Education	Review of online platforms	Offering short-term certificate courses for students and teachers	Not mentioned	Online Education is not a substitute but a supplement to classroom teaching and other methodologies
3.	Jena, 2020	New trends emerged in Higher Education during Coronavirus lockdown	Educational platform for students in undergraduate level.	Content Analysis (authentic websites, journals and e-contents)	Credit transfer from MOOC to universities credits in India	SWAYAM	Providing high quality educational programs
4.	Mukherjee, 2020	Relying on information and communications technology and develop online teaching during Covid-19 lockdown	One of three basic forms of online teaching	Not mentioned	MOOC platform is one of IT enterprises that provide technology support and teaching	MOOC platform of China University	Few faculty members who had created a Massive Open Online Course (MOOC) were better placed than those who

					resources for online teaching		never taught online, but they were a minority.
5.	Mukherjee, 2020	In a world of Coronavirus the safest option is technological - online teaching	An option of online learning for higher education	Not mentioned	To adopt a blended learning (online and on-campus interaction) not only MOOC	Not mentioned	Distance learning
6.	Munck, 2020		People enforced to turn towards online teaching to deal with the physical closure of many universities	Not mentioned	Using MOOC as one of other alternative to face-to-face teaching during HEIs closure.	Not mentioned	Not a replacement to HEI but an option
7.	Nabukeera, 2020	A case study on online education during covid-19	One of platforms in the suggested list of UNESCO	Case Study	An online education option suggested by UNESCO	Not mentioned	Online teaching
8.	Nordmann, Horlin, Hutchison, Murray, Robson, Seery, & MacKay, 2020	Contingency plans for online education during covid-19 pandemic	A platform for increasing awareness about a topic	Not mentioned	Provide teaching and assessment to students in a manner that is accessible, fair, equitable, and provides the best learning	Not mentioned	A supplementary course
9.	Page, 2020	Train the graduates for the futuristic professional scenario, by blending ICT based	A platform that is used as part of blended learning.	Not mentioned	MOOCs provide a flexible learning platform which is perhaps a	SWAYAM	SWAYAM platform is designed to achieve the three fundamental values of Education Policy

		teaching learning tools and add-on online MOOCs courses from SWAYAM Platform			valued add-on to class room learning.		- access, equity and quality.
10.	Sinha, 2020	explores the Role of Big Data and Analytics in Higher Education Sector in India	MOOC is one of two important tools mostly used in higher Educational institutions: Virtual Class Room and MOOCs (Massive open Online Courses).	Literature Review of Big Data Analytics.	Students have access to the Indian Universities as well as World's best courses which are better than the courses that are offered by any single university.	Not mentioned	Massive Open online Courses generating huge amounts of data which are relevant for Big Data and Analytics
	ResearchGate						
11.	Seale, Ibeto, Gallo, Waroux, Glynn, & Fogarty, 2020	Following constructivist approach by learning from each other in the COVID-19 pandemic.	Sharing accurate information through reliable, trusted, source such as MOOC which support the "constructivist" approach during Covid-19 outbreak	Experimental	Open education such as MOOC can complement traditional messaging, providing a sustainable approach to countering the spread of misinformation.	FutureLearn	3 week MOOC course developed by London School of Hygiene & Tropical Medicine (LSHTM) to increase awareness among people about Covid-19
12.	Utunen, Ndiaye, Piroux, George, Attias, & Gamhewage, 2020	MOOC Course in Multiple Languages on OpenWHO to reach the target audience during Covid-19 pandemic.	Introductory COVID-19 MOOC course that includes basic information for anyone wanting to	Content Analysis	MOOC is a mean to deliver health emergencies, lifesaving information that are packaged	OpenWHO.org.	Creating a MOOC course by OpenWHO platform with unprecedented increase in platform use.

				understand the new epidemic.		and delivered in the languages spoken by the target audiences to effectively transfer urgent knowledge		
	Ieeexplore						
13.	Chen, Zheng, & Yu, 2020 *****	Blended Online Teaching Mode Based on Live Broadcasting and MOOC	MOOC if blended with "Live Broadcasting" can improve the accuracy of online teaching and application of new technologies in learning.	Quantitative and Qualitative survey questionnaire	The combination of Live Broadcasting and MOOC can help universities improve the accuracy of online teaching under special circumstances, such as the new pneumonia outbreak (COVID-19).	ZJOOC	MOOC can be part of blended learning of "Live Broadcasting and MOOC"
	ScienceDirect						
14.	Alhazzani, 2020 *****	MOOC's impact on higher education	MOOCs have a significant direct impact on higher education as it improves education outcomes. MOOCs accounted for a 65% improvement in education	descriptive and analytical approach. A quantitative survey	Support educators in building MOOC's to develop and examine many types of learning	Rwaq, Doroob	To develop MOOC as a part of college teaching and learning

				outcomes.		
15.	Andel, de Vreede, Spector, Padmanabhan, Singh, & Vreede, 2020	How to effectively optimize and enhance the online learning experience.	Need to be investigated as a recommendation of the researcher	Controlled experiment	Considering aspects that enhance social presence when creating video in an online course.	MTurk	It is recommended to apply the study on future research that include MOOC.
16.	Kang, Thompson, Aneja, Lehman, Trister, Zou, & El Naqa, 2020	level of competency in AI is necessary to safely and effectively use it in the clinical setting. In the present perspective article from the 2019 NCI Workshop on AI in Radiation Oncology	MOOCs provide consistency and quality of education, for accelerated training, the radiation oncology community could adopt the intensive weeklong workshop model that is widely used by oncology organizations.	Working Group of workshop	MOOCs have become very influential in online education, as they can be tailored for various experience levels and are self-paced. MOOCs could be adopted from existing courses or centrally created in collaboration with organizations.	Coursera	A formal curriculum can be facilitated and standardized using MOOCs
17.	Kriz, Nailer, Jansen, & Potocnjak-Oxman, 2020	Explore how and why the interests of researchers and practitioners have diverged.	Open innovation is an important concept relating to a shared commons	Review	programs attempting to bridge differences between researchers and practitioners	-	MOOC is one of important concepts relating to a shared common. The researcher thinks that universities are harnessing the benefits of more open innovation

18.	Varalakshmi, & Arunachalam, 2020	Role of faculty members to keep mental activeness of students during covid-19	MOOC is considered as one of the initiatives that are highly informative to Faculty members and students to enhance their knowledge	Not mentioned	Students should engage academically through online for the benefit of their career	SWAYAM UG/PG MOOCs	Enhance students' knowledge either in their fundamentals course (or) in advanced course (or) in preparing for a competitive examination (or) in a specific field of his / her interest.
19.	Van Baarle, Bollaerts, Del Giudice, Lockhart, Luxemburger, Postma, & Standaert, 2020	How to improve vaccine effectiveness and uptake and to deploy efficient vaccination strategies for ageing group	An awareness course within a medical education platform.	holistic research project	MOOC will be incorporated into Continuous Medical Education (CME)	Claroline platform	A MOOC dedicated to vaccines for ageing adults will be posted on the Claroline platform
	Sage						
20.	Burns, 2020	Explores the risk of deepening neoliberal educational reforms, and suggests ways to resist the resulting neoliberalization of education that it could entail.	The advantages of online education such as MOOC have been discursively mobilized to respond to budget cuts. online spaces can enable collective learning through multiple media and forms.	Not mentioned	MOOCs' audiences are in need of the same form, content, and media of an educational experience which support democracy.	Not mentioned	MOOC and online learning is the very future of education and democratic process.
21.	Zhang, Wang, & Li, 2020	The way forward for online education in the post-epidemic era.	Online education nowadays still applies in a relatively	Not mentioned	Once educators and students master the use of online tools	Not mentioned	According to the authors, they see that though MOOC is online platform

		traditional way to deliver learning content. MOOC is one of these online education.		in education they will keep on using them.		for education; however, the online content is still delivered in a traditional way.