

## THE UTILIZATION OF MASSIVE OPEN ONLINE COURSE CONCEPT DURING CORONA PANDEMIC OUTBREAK

Ahmad Muhazir<sup>1</sup>, Sugianto<sup>2</sup>, Janner Simarmata<sup>3</sup>, Puguh Sudarminto<sup>4</sup>

<sup>1</sup>Information System, Sekolah Tinggi Manajemen Informatika dan Komputer Royal, Indonesia

<sup>2</sup>Technical And Computer Faculty, Harapan Medan University, Indonesia

<sup>3</sup>Information technology and computer education, UNIMED, Indonesia

<sup>4</sup>Professional work, Indonesia

---

**Corresponding author:**

soegi1703@gmail.com

**Keywords:**

MOOCS

E-Learning

Massive Open Online Course

---

**ABSTRACT**

The development of the digital world in the industrial era 4.0 is currently encouraging the creation of innovation in various fields and aspects of life. With easy internet access and digital innovation in every public service, of course, it has a positive impact on human life today. The creation of innovations in various fields of business both for the manufacturing business, food and beverage, convection, tourism, services, health and not lagging in the field of education services at this time. With these abnormal environmental conditions, of course the use of digital media and internet connections has an important role when searching and disseminating information, as a medium of communication and strongly supports the teaching and learning process online. The problem is how an educator (instructor) is able to improve self-competence, independent learning when staying at home. The concept of massive open online courses is the right solution for educators and anyone who wants to improve their competence and learn online with a variety of material topics to choose from.

---

## INTRODUCTION

At the end of December 2019 there was a corona outbreak that originated in China and spread to various countries in the world including Indonesia. According to data from the Ministry of Health of the Republic of Indonesia, in Indonesia until April 1, 2020, the total number of patients confirmed positive that Covid-19 has reached 1,677, a total of 103 patients recovered and 157 patients died in 32 provinces in Indonesia. While the latest data from 2 April 2020 from WHO 827,419 positive cases, 40,777 patients died in 206 countries[1]. If this condition is not controlled, it will cause serious problems. This will have a significant impact on all aspects of life including on education. Where schools, universities, non-formal course institutions must be closed

and closed all teaching and learning activities while to avoid transmission of the corona virus is increasingly widespread. This also applies to other business sectors and government to reduce social distancing and work from home. And the Indonesian government also provides an appeal for the world of education to continue implementing the online learning process for students..

Corona pandemic is a human health crisis that occurred suddenly and first in the world. The real impact of the widespread corona outbreak in various countries in the world caused several countries to close teaching and learning activities both in the elementary school to university, including in Indonesia.

The efforts made by the government to reduce the spread of Corona Virus Disease (COVID-19) in Indonesia is to decide on teaching and learning activities online or online. Teaching and learning activities online is a substitute for direct face-to-face activities in schools between students and teachers or between students and lecturers on campus.

The impact felt by teachers or educators is that not all are adept at using internet technology or social media as a learning tool, some senior teachers have not been fully able to use devices or facilities to support online learning activities and need assistance and training first. And the competence of teachers in using technology will affect the quality of teaching and learning programs. Therefore, before online learning programs are held, teachers are required to be given training first. How much impact does the teacher or educator feel that is on the learning process online at home without adequate facilities and infrastructure at home. [2]

Taking advantage of the various platforms provided in the internet makes it easy for online learning activities. Massive open online courses are the most ideal choice for educators and anyone who wants to improve their competence during a corona pandemic by staying at home. An online learning model that can be accessed from anywhere and at any time. Educators can choose and adjust their learning schedule to suit their needs.

Massive Open Online Courses (MOOCS) are present as an alternative choice to provide solutions to the gap between the needs and abilities of an institution in providing learning resource services. [3]

The MOOCs platform itself is very numerous. Various services from the current MOOCS concept and the availability of various choices of learning materials that can be adjusted to the needs of educators in improving competence during co-19. The following are some provider sites that provide the MOOCs platform. [4]

## **METHOD**

In solving this research problem, some steps that need to be taken as a foundation for thinking are as follows [5]:

The stages contained in this Prototype method are as follows:

1. Identify User Needs. At this stage developers and users meet. The user explains the system requirements.
2. Make a Prototype. Developers began to make prototypes of the system.
3. Test the Prototype. After the prototype is formed the user tests the prototype and provides criticism or suggestions.
4. Improve Prototype. In this stage the developer makes modifications according to user input.
5. Develop Prototype. After the evaluation is done and the system perfectly in accordance with the wishes of the user. Then the developer completes the system according to the last input from the user.

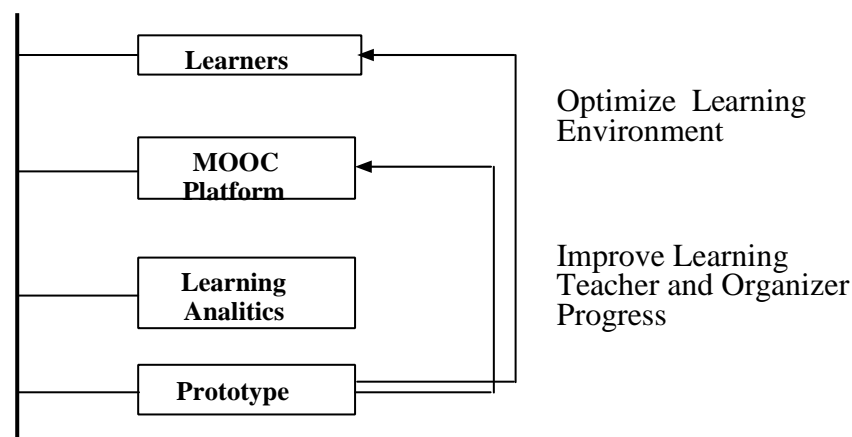


Image 1. Learning Analytics Prototype

Before designing and developing a mobile application on the MOOC system the requirements that the application must be applying several requirements including: First is that the application must be distributed as a mobile application. This condition is justified to the extent that most MOOC participants are usually aged between 25 and 40, and most people in this age group have included mobile phones in their daily lives. Second is that the application must be adapted to a different profile. The profile of participants in MOOC can be very diverse, consisting of mentors, students and ordinary users.

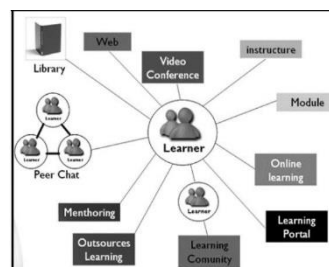


Image 2. Prosess Students MOOC

Third is that the application must include an automatic daily list planner related to the students' MOOC tasks that needs to be achieved. This plan must adapt to different student profiles and take on previous performance.

Fourth is that the application must rely on crowdsourced information about MOOC from the user community.

Fifth is that the application must provide tips and instructions so that the lack of information related to learning information can be given a solution.

Sixth is that the application should be a meeting point for students who are less experienced

## RESULT AND DISCUSSION

Using MOOCs is very easy. The steps to access MOOCs are:

1. Select and visit the MOOCs platform website. The first thing to do when you want to take an online course is to open the MOOCs platform website. Image 1 shows the main page display of one of the MOOCs platform websites,
2. Participants register in advance to get an account on the Coursera MOOCs platform. Complete participant profile information. Then, participants choose the course material that is of interest according to the need for competency improvement. Coursera's website has a search box for what course material is available. As shown in Image 2, Coursera provides a selection of catalogs from all classes and programs offered.
3. Participants can choose one class they want. And it can be seen how many participants registered and will join the program. Class level offered If a prospective participant has decided which class or program to take, the student can open the link provided. If this is done, a display will appear as shown in Image 3, which provides information about when the class or program will take place, the duration of study time and how much it will cost if attending the class or program. If potential participants are interested, then there is an option to register. However, there are also several programs that are provided free of charge for participants.
4. Register to attend the lecture. As shown in Image 4, to register in a class or program, prospective participants must fill in their full name and email account. After that, he must wait for the confirmation email for activation. If this has been done, it means that the prospective participant has an account to access the program or class that is being taken on the Coursera MOOCs website.
5. Following online learning. If the participant has registered and wants to start an online class, then the participant needs to know basic information about the class. This explanation is usually listed on the homepage (home). As shown in Image 5, there is an explanation of the objectives to be achieved from the organization of the online class and also seen the applicable lecture schedule. In addition to the homepage section, participants can also view the lecture syllabus, to get an

overview of the material that will be given at each lecture session along with the quiz schedule or lecture assignments. The lecture material itself is usually given every week. As shown in Image 6 and in Image 7 the syllabus section includes the date and material provided during the lecture, along with the deadlines for each quiz and assignments. This lecture syllabus can be a guideline if participants want to look for supporting material, in addition to the material delivered through the lecture modules provided. The modules themselves are usually given every week. In the following week other materials will be delivered according to the lecture agenda.

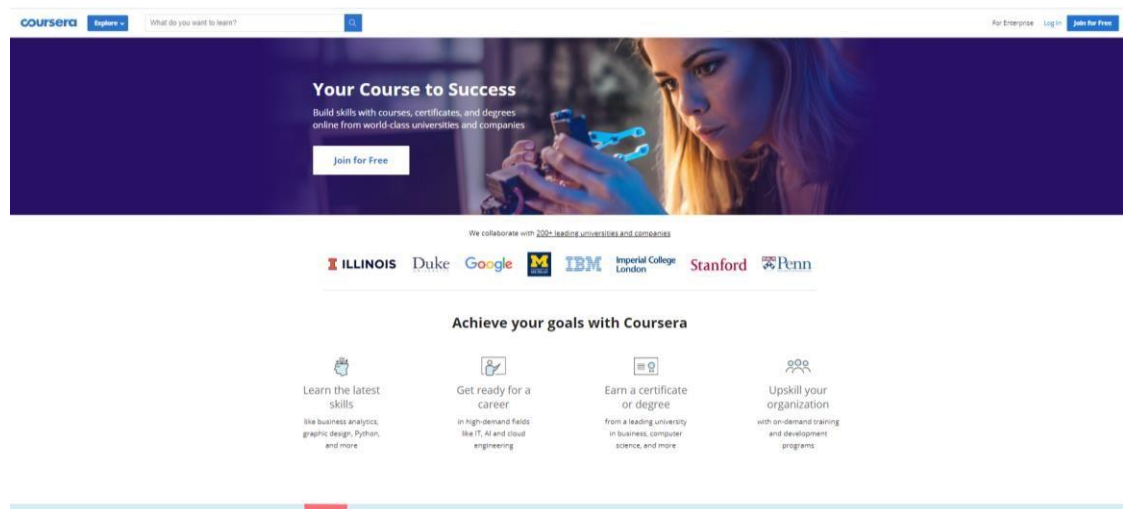


Image 3. Main page [www.coursera.org](http://www.coursera.org)

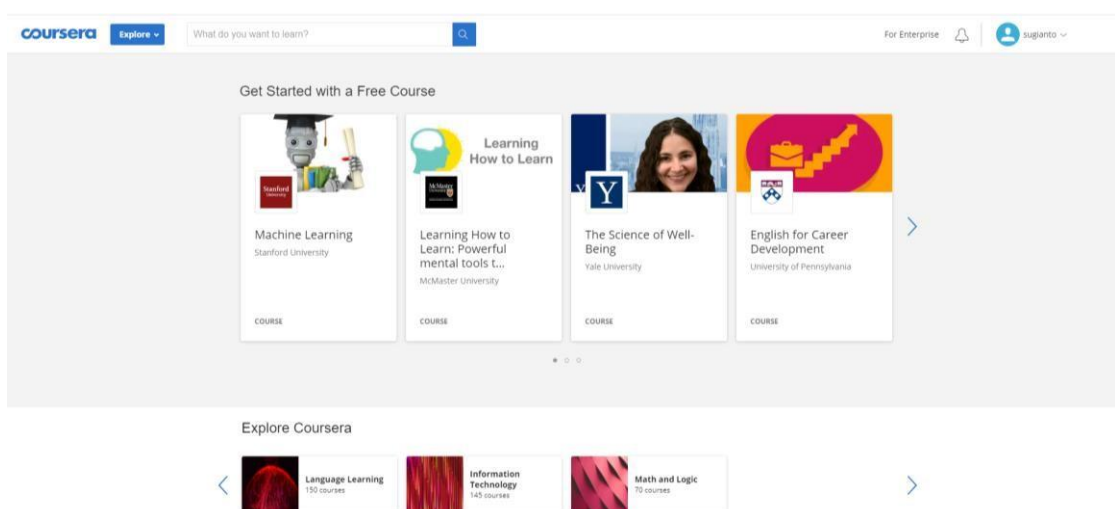


Image 4. Menu searching kursus yang disediakan

- Participants will get a certificate if the participant is active in the online learning program by doing the assigned tasks, then the participant will get a certificate marking as having completed the Coursera MOOCs. But not all programs provide certificates.

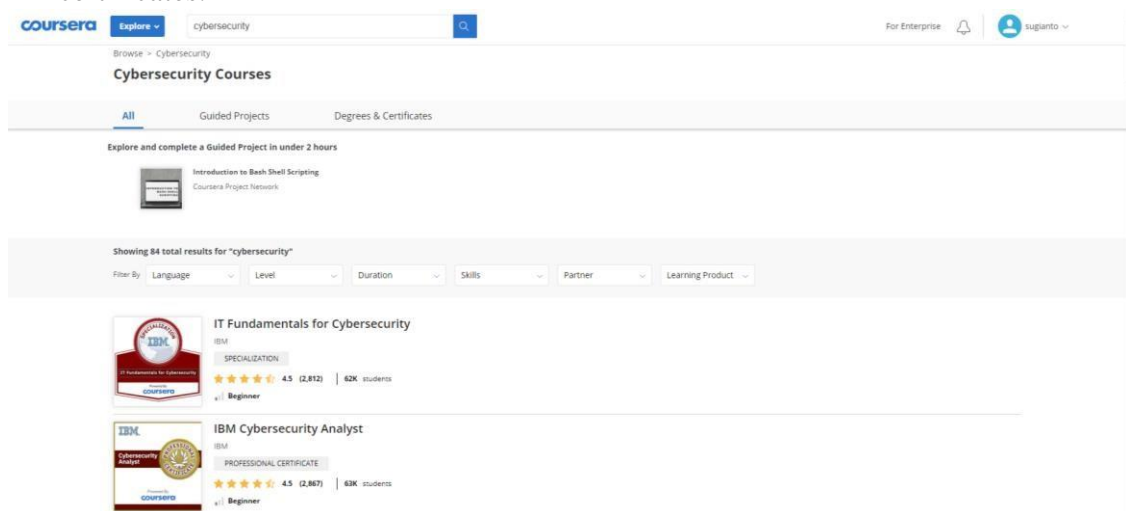


Image 5. Menu searching available courses and level courses

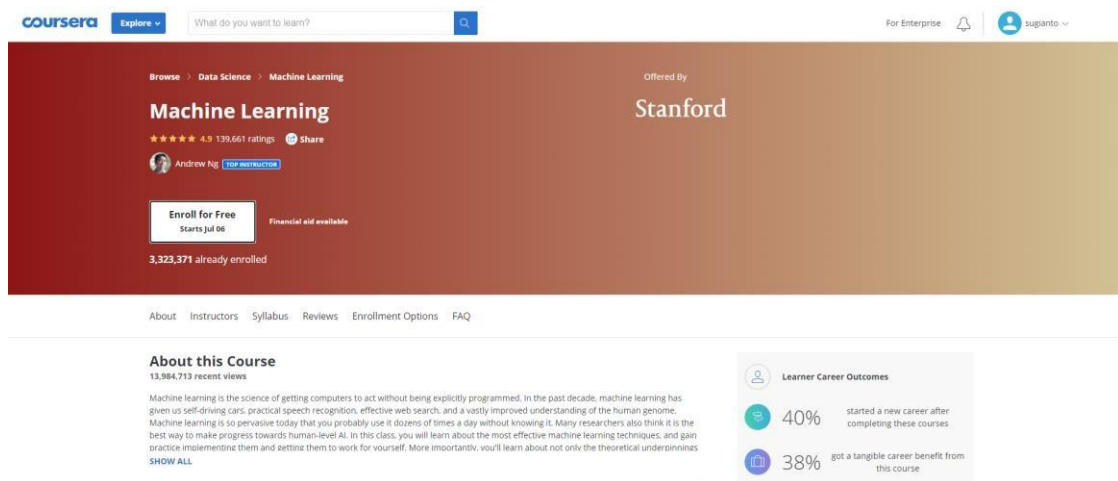


Image 6. Menu selection and registration of courses to be followed

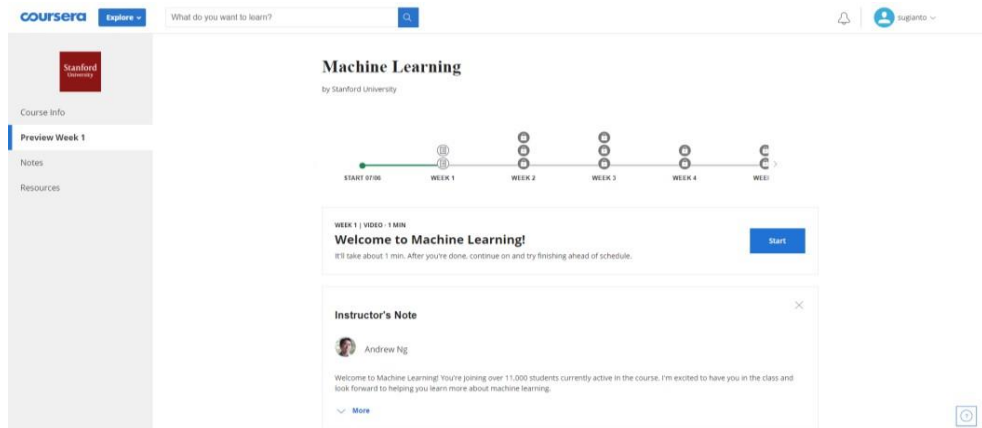


Image 7. Display page length of learning and instructor instructor

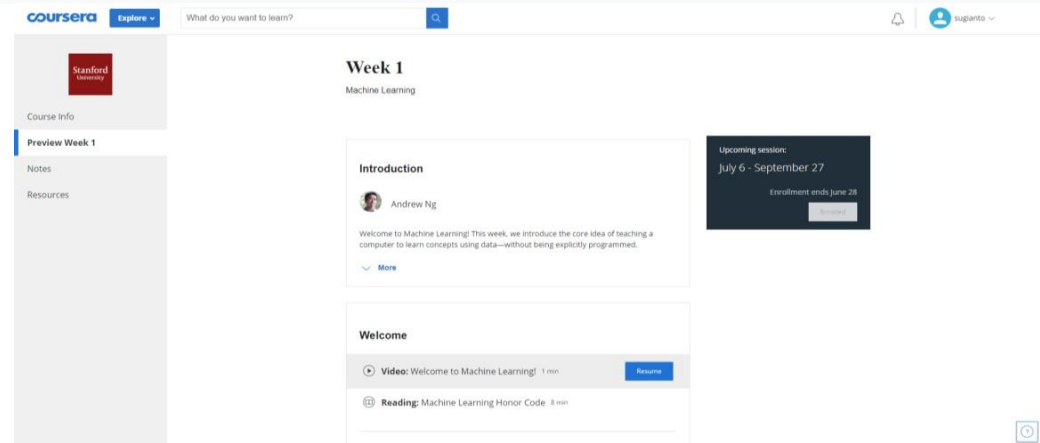


Image 8. Display page length of learning and instructor instructor

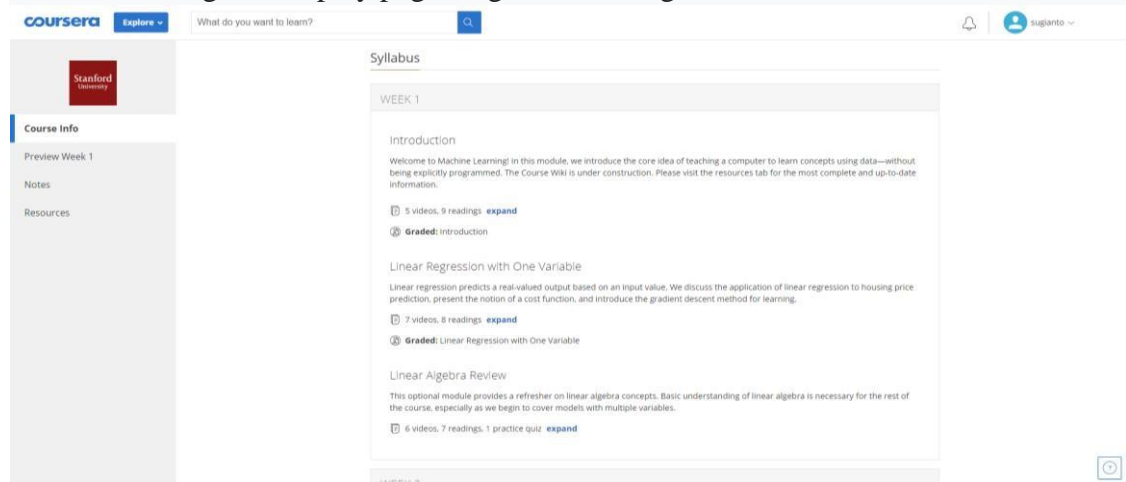


Image 9. Display program syllabus pages

## CONCLUSION

The Massive Open Online Course is a solution for educators and anyone to remain productive, study online and obtain material in accordance with their expertise to improve their competence during work at home in the corona pandemic. Coursera is one of the MOOCs platforms suggested by researchers. With the progress of today's information technology which is very diverse and unlimited, it is very possible that online learning methods can be applied with the concept of massive open online courses. Availability of various services and feature development from MOOCS and utilizing learning resources that can be accessed easily and openly by education and anyone online.

## BIBLIOGRAPHY

- [1] K. RI, "Kemenkes RI," [Online]. Available: <https://www.kemkes.go.id/article/view/20040100003/update-1-677-pasienpositif-covid-19.html>, 2020.
- [2] R. S. P. Agus Purwanto\*, Rudy Pramono, Masduki Asbari, Priyono Budi Santoso, Laksmi Mayesti Wijayanti, Choi Chi Hyun, "Studi Eksploratif Dampak Pandemi COVID-19 Terhadap Proses Pembelajaran Online di Sekolah Dasar," vol. 2, no. 1, pp. 165–170, 2017.
- [3] Emigawaty, "90109-ID-perancangan-arsitektur-dan-purwarupa-mooc." OJS.AMIKOM.AC.ID, Yogyakarta, pp. 25–30, 2017, [Online]. Available: <https://ojs.amikom.ac.id/index.php/dasi/article/view/1830/1552>.
- [4] L.Setyowati, "Online Courses ( MOOCs ) kepada Pustakawan," *Media Pustak.*, vol. 22, no. 4, pp. 6–18, 2015, [Online]. Available: <file:///E:/paper/icossits/Final/iccosit/216-434-1-SM.pdf>.
- [5] R. Hardi, Gunawan, and Sumardi, "Pendekatan Baru Teknologi Mooc Sebagai Media Pembelajaran Pada Matakuliah Pemrograman," *SNITT- Politek. Negeri Balikpapan 2018*, 2018.