The Positive Impact of Covid 19 in Encouraging the Growth of a Smart Campus at the Private University in Surabaya

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Abstract: In 2020, the world will experience a covid-19 pandemic, forcing humans to carry out physical distancing. This condition certainly makes the education sector, especially universities in Surabaya, unable to directly carry out the learning process. This impact looks negative, but this physical distancing condition makes the Private University in Surabaya increase its innovative campus services. Before the Covid-19 pandemic, smart campus building was only a trend. So with the COVID-19 pandemic, the development of a smart campus is a must. In this paper, the authors researched how the growth of smart campus development in Surabaya private universities was seen from before the covid-19 pandemic to the time the covid-19 pandemic occurred. The first section in your paper.

1 INTRODUCTION

Since the first case of COVID-19 was announced in Indonesia on March 2, 2020, all conditions have changed. People's activities suddenly became very different. In various mass media, #dirumahaja campaigns and must maintain a distance. All economic activity also slowed down. But there is one activity that has increased in the COVID-19 pandemic situation, namely Online activities. All activities are carried out online by utilizing an internet connection service.

The impact of the Coronavirus disease 2019 (Covid-19) pandemic is now beginning to spread to the world of education. It is an effort to prevent the spread of Covid-19 transmission, so the educational institutions will not carry out activities as usual; this can diminish the spread of Covid-19. The same thing has been done by various countries exposed to this disease, lockdown or quarantine policies carried out to reduce the interaction of many people who can provide access to the spread of the Covid-19.

In the education area, especially at the higher level, the Ministry of Education and Culture (Kemendikbud) has asked all universities to provide learning convenience in the Covid-19 emergency. Helping the Government and the community to learn from home, work from home, and carry out social restrictions to break the chain of spreading Coronavirus Disease (Covid-19). The Directorate General of Higher Education (DitjenDikti) also appealed to universities with their autonomy to provide flexibility in implementing distance lecturing activities during the Covid-19 emergency. One of them is by implementing a smart campus system (Kemdikbud, 2020).

This was done to limit the spread of the virus until now, it has reached more than 460,000 corona positive patients. The learning from home policy began to be implemented on March 9, 2020, after the Minister of Education and Culture issued circular numbers 2 of 2020 and 3 of 2020 regarding online learning and working from home to prevent the spread of COVID-19.

All campus leaders in each area affected by Covid-19 are asked to stop academic activities such as face-to-face lectures. As a follow-up to this circular, all universities were also asked to issue policies regarding the online learning process for students. Because of this, all universities in Indonesia asked to make adjustments to this policy to change all teaching and learning activities carried out online. A system that can support the covid 19 pandemic conditions is a smart campus. This system must exist in every university, especially the distance learning process. All universities are "forced" to build an e-learning system. For the teaching and learning process, semester exams,

assignments, administrative registration, including the graduation process, are carried out online.

The condition of the COVID-19 pandemic has changed the paradigm of learning patterns, interaction patterns and ways of managing the higher education system. With the condition of the COVID-19 pandemic which forces physical distancing, the availability and utilization of ICT (Information and Communication Technology) facilities is a public demand and added value for college (Cronin, et.al, 2010).

A college that is not equipped with adequate ICT facilities will overwhelm implementing the teaching and learning system during the COVID-19 pandemic. The application of ICT in education during the COVID 19 pandemic has made the campus an entity to remain a source of access to knowledge and research throughout the world even though the situation forces studying from home alone (Shofiya, et.al, 2020).

Make it easy information exchange, research collaboration, improving student services, distance learning, and between communities outside the campus. The application of ICT will create efficiency in campus management while increasing the productivity of all elements of the academic community to achieve a centre of excellence (Ambra and Rice, 2011). The condition of the COVID 19 pandemic has turned out to be a positive motivation for every village to become a smart campus by implementing ICT in every activity.

2 RESEARCH METHOD

In this paper, research is conducted on the influence that occurs on ICT use in one of the private universities in Surabayawho that have implemented smart campus, namely the University of Wijaya Kusuma Surabaya, during the covid 19 pandemic conditions. Data collected and analyzed is from May 2020 to October 2020 (6 months). The smart campus system at Wijaya Kusuma University Surabaya uses the main domain www.uwks.ac.id. Tool to collect data using Alexa and google trends. The data seen and analyzed is visit traffic, Alexa ranking, Keyword trends from applications in the smart campus at UWKS (Feng and Tang, 2010).
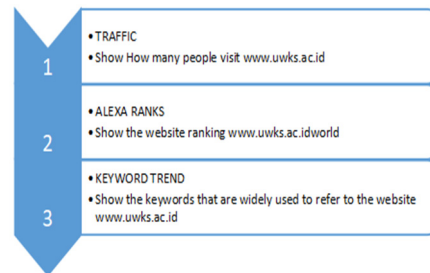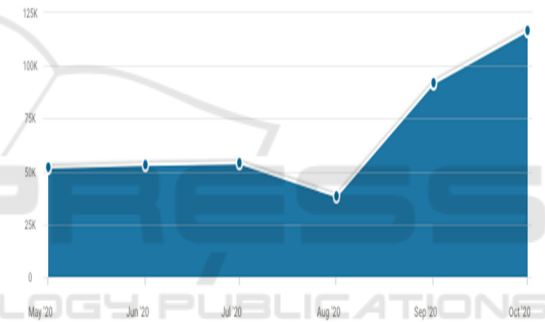

Figure 1. ICT

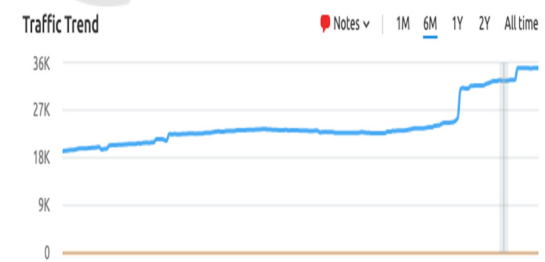## 3 RESULTS AND DISCUSSION

3.1 Traffic to Domain www.uwks.ac.id

a. Taken from the Similarweb tool, it shows the following results from May 2020 to October 2020.

Source:https://www.similarweb.com/website/uwks.ac.id/#overview

Figure 2. Result form similar web

b. Taken from the SEMRush tool, it shows the following results from May 2020 to October 2020.

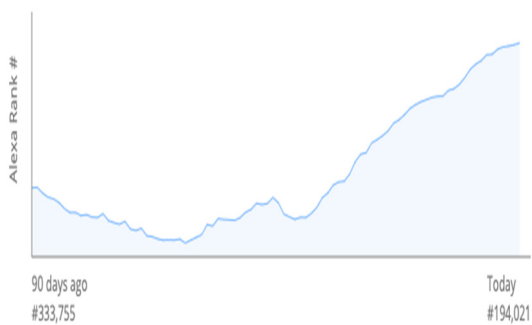Source:https://www.semrush.com/analytics/overview/?q=www.uwks.ac.id&searchType=domain

Figure 3. Result from SEMRush

3.2 Alexa Rank from www.uwks.ac.id

a. Taken from the Alexa Rank, it shows the following results from August 2020 to October 2020
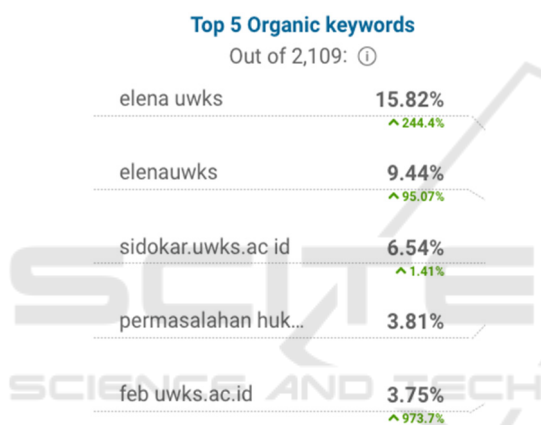
Source: https://www.alexa.com/siteinfo/uwks.ac.id

Figure 4. Result from The Alexa Rank

3.3 Keyword Trend

a. Taken from the similar web tool, it shows the following results from May 2020 to October 2020

Source:https://www.similarweb.com/website/ uwks.ac.id/#search

Figure 5. Top 5 organic keywords

b. Taken from Google trend, it shows the following results from May 2020 to October 2020

Source:https://trends.google.com/trends/explore?date=2020-05-05%202020-10-30&q=%2Fg%2F1235qkzl
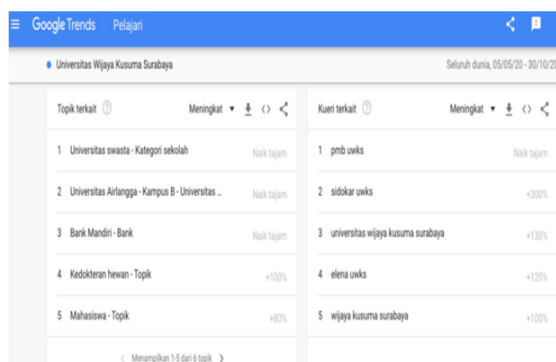
Figure 6. Result from Google Trends.

3.4 Traffic Analysis from Domain www.uwks.ac.id

a. From the traffic graph generated by the similar web tool, the table is shown below

Table 1: the traffic graph generated by the similar web tool

May 2020	June 2020	July 2020	Aug 2020	Sept 2020	Oct 2020
50.000	55.000	55.000	40.000	90.000	120.000

To calculate the number of percentages that occur from the beginning of the observation to the end of the observation using this formula:

$$Difference\ in\ Traffic = \frac{Initial\ traffic - endtraffic}{Initial\ Traffic} x100\% \dots\dots formula\ A$$

So if the percentage is calculated= 7000/5000 x 100% = 140%

b. From the traffic graph generated by the SEMRush tool, the table is shown below

Table 2: the traffic graph generated by the SEMRush tool

May 2020	June 2020	July 2020	Aug 2020	Sept 2020	Oct 2020
20.026	22.466	22.710	23.583	90.000	32.580

By using formula A, the resulting calculation of traffic changes from the uwks.ac.id domain according to SEMRuhs Tool is: 12554/20026 x 100%= 60%

The two data above shows an increase in the use of the smart campus system at Wijaya Kusuma University during the Covid 19 pandemic, which was observed from May to October 2020.

3.5 Data Analysis of Alexa Rank from Domain www.uwks.ac.id

Especially for data from Alexa Rank was observed for 3 months, starting from August 2020 to October 2020. The smaller Alexa Rank figures indicate that the domain is getting a lot of traffic. From the traffic graph generated by Alexa Rank, the table is shown below:

Table 3: The traffic graph generated by Alexa Rank

Month	Aug 2020	Sept 2020	Oct 2020
Alexa Rank	380.593	366.810	233.465

From the data above, it can be seen that there is a very sharp increase in Alexa Rank within three months. From rank 380,593 to rank 233,465. An increase of 147,128 points or 38.65% The uwks.ac.id domain from 380 thousand to 230 thousand rankings occurred in just three months.

3.6 Data Analysis of Keyword Trend from Domain uwks.ac.id

The services of the smart campus system at Wijaya Kusuma University, Surabaya are all characterized by having prayers at uwks.ac.id. So that you can observe what users widely use applications by looking at the trending keyword that refers to the uwks.ac.id.

a. From the data generated by the similar web tool during May 2020 to October 2020, 3 services from the smart campus system were widely accessed and generated 57.43% of the total traffic to uwks.ac.id. These services are: Elena.uwks.ac.id (e-learning system), sidokar.uwks.ac.id (administration system), Feb.uwks.ac.id (Economic faculty website). The growth of the 3 services can be written in this table

Table 4: 3 services from the smart campus system

Elena. uwks.ac.id	Sidokar. uwks.ac.id	Feb.uwks. ac.id
244%	1.41%	973.7%

b. From the data generated by Google Trend throughout May 2020 to October 2020, there are 3 services that have experienced growth, namely pmb.uwks.ac.id (registration system), elena.uwks.ac.id (elearning system), sidokar.uwks.ac. id (administration system).The growth of the 3 services can be written in this table.

Table 5: 3 services that have experienced growth

Elena. uwks.ac.id	Sidokar. uwks.ac.id	Pmb. uwks.ac.id
120%	300%	400%

From the results of the two tools to see the keyword trend, 2 services are the same with high growth from May 2020 to October 2020, namely Elena.uwks.ac.id and sidokar.uwks.ac.id. The growth of the Elena.uwks.ac.id service as a distance learning system is very reasonable in the conditions of the Covid-19 pandemic where all activities must use physical distancing, including teaching and learning activities between lecturers and students. The same thing can be seen in the sidokar.uwks.ac.id service, which is a service in the administration sector such as employee and lecturer attendance, lecturer research, and salary payments. The 300% increase in growth in sidokar.uwks.ac.id services shows the implementation of ICT running well in the Universitas Wijaya Kusuma Surabaya.

4 CONCLUSION

The three parameters carried out by the observation, namely Traffic Traffic, Alexa Rank Value, and Keyword Trend carried out in May 2020 to October 2020, show a positive growth rate. And it is known that during May 2020 to October 2020 period, all activities in higher education must be restricted so that it triggers growth in the use of smart campus services.

The growth of smart campus services, which has increased above 100%, is data that makes you happy.Because the smart campus system with the use of adequate ICT devices can work well. Before the COVID-19 pandemic, lecturing activities were mostly carried out offline, which actually had a negative side: limited space and time for lecturers and students.However, the covid-19 pandemic has forced universities to implement smart campus services free from time and space constraints. The growth of the online learning system, which is indicated by the number of accesses to Elena.uwks.ac.id above 200% proves that the learning process can be implemented freely and borderless.

The COVID 19 pandemic, on the other hand, has had a negative impact, but in terms of implementing the smart campus system, it has had a positive impact. It has made the academic community in higher education in general, and in Wijaya Kusuma University's environment in particular, smarter in using ICT devices and accessing the smart campus system

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