Critical Analysis of Digitalization Implementation For Covid 19 Vaccination Registration

by E S

Critical Analysis of Digitalization Implementation For Covid 19 Vaccination Registration

Raden Roro Roosita Cindrakasih,[1, a)] Riastri Novianita,[1, b)] Pramelani,[1, c)] Abdul Aziz,[1, d)] and Priyono[2, e)]

[1)]*Department of Communication Sains, Universitas Bina Sarana Informatika, Indonesia*
[2)]*Departement of Informatic System, Universitas Bina Sarana Informatika, Indonesia*

[a)]*Electronic mail: roosita.rrc@bsi.ac.id*
[b)]*Corresponding author: riastri.rsv@bsi.ac.id*
[c)]*Electronic mail: pramelani.pli@bsi.ac.id*
[d)]*Electronic mail: abdul.bdz@bsi.ac.id*
[e)]*Electronic mail: Priyono.pyo@bsi.ac.id*

Abstract. The rapid spread of Covid-19 transmission has led the world to take measures to stop the outbreak. Every country is currently starting to vaccinate its own population as a way to prevent the virus. Including Indonesia which is in full force on implementing the program of giving free vaccination to its citizens gradually. Registration for free vaccination is done digitally, where the government has taken steps so people can make the best use of the program. Seeing this, researchers are interested in analyzing how the implementation of digitization in Covid 19 vaccination registration is where the research method used is descriptive qualitative by taking on the data from reference articles and field observations. Subsequent research found that Indonesian people are familiar with various media application such as WhatsApp or Short Message Service (SMS). With clear and easy to understand flow in Covid 19 vaccine registration application, the public will not be confused in participating in programs promoted by the government.

INTRODUCTION

At the beginning of 2020, the world was shocked with a new type of virus under the name of SARS-CoV-2 and the disease is called Corona Virus Disease 2019 (COVID-19). This virus belongs to ordo Nidovirales, family Coronaviridae, Arteriviridae, and Roniviridae. This virus has round shape with average diameter of about 0,125 microns[4]. The origin of this virus is from Wuhan, China which then spread to almost all regions of the world so the World Health Organization (WHO) declared this disease as a global pandemic. The emergency committee stated that the spread of COVID-19 could possibly be stopped with protection, early detection, self-isolation and prompt and precise treatment. This is related to the efforts to create a resilience implementation against the spread of COVID-19. With various efforts being made to protect against the spread of COVID-19, many countries from all over the world are jointly committed and working together to create variants of COVID-19 vaccine. If all understanding regarding efforts to reduce the spread of COVID-19 is conducted, then the vaccination program for the citizens will certainly be a measure of government success, especially Indonesia in reducing the spread of this disease. The government is intensively performing Covid-19 vaccination. After the first group is done, which are the health workers, vaccination is now in stage 2. In stage 2, the groups to be vaccinated are the elderly and public workers. People who are included in these groups can register online. The Ministry of Health (Kemenkes) says that recipients of Covid-19 vaccination program can register via WhatsApp messaging application. This service aims to make it easier for Covid-19 vaccine recipients to register anywhere. However, registration via WhatsApp is currently only for health workers. Collaboration of WhatsApp application with Indonesian Government regarding Covid-19 vaccination is the first in the world. This information is conveyed through an official statement on the official website of Indonesian Ministry of Health.

THEORETICAL BASIS

Communication

There are many definitions of communication resulting from the complex and rich disciplines of communication. For example, if we take a class on communication from two different professors, each of them will have their own style of delivering materials and the students will each have their own unique approach to communication theory. It

results in many impressive and unique approaches to study and learn about the same topic This uniqueness plays an important role in defining communication. Experts tend to view human phenomena from their own perspective. In fact, sometimes they create boundaries when trying to explain a phenomenon to other people. Communication experts will use different approaches in interpreting communication because they have different values. Several theories will also influence how we define a term. The term communication here means as a social process in which individuals use symbols to create and interpret meaning in their environment [2].

Mass Communication

Studies on communication that have been conducted do not always focus on scientific method which has been used as the reason for a science to be said as scientific. Mass communication has its own emphasis and discussion. For example, Wilbur Schramm in his book Introduction of Mass Communication Research points to several studies conducted in the 1920s and 1930s that focused on analyzing the history of newspapers and magazines or interpreting descriptions of media messages. Even in the oldest scientific journal of communication Journalism Quarterly states that the study area of journalistic and mass communication can be emphasized on history, law, and media content analysis [5]. In general, mass communication can be defined as scientific study of mass media and messages that readers/listeners/viewers are trying to achieve, and the effect on them. Mass communication is relatively straightforward social science discipline compared to psychology, sociology, political science, and economics. The discussion of communication which is rapidly increasing and complex along with studies that are continuously being conducted becomes evidence that the science of mass communication is an important part of scientific study process. Even then it can become the most important role in the history of human development, especially communication, because today's society will not be separated from this role of mass communication science.

Digital Communication Concept

Digital Communication Concept is important concepts in digital communication including internet and also elements that do not exist on internet, such as CD-ROMs, multimedia, or virtual reality computer software (three-dimensional images that are like real).[1] The internet allows almost everyone in any part of the world to communicate with each other quickly and makes it easier for humans to communicate with each other without being limited by space and time. The internet has grown phenomenally, both in terms of the amount of users and the amount of host computers. The concept of digital communication will always evolve in accordance with the changing times which are influenced by the invention of technology-based tools that are constantly evolving. The benefits of such communication systems are quickly understood and captured by the public, because they can be accessed anywhere. With the development of the era, communication is done not only by talking, but communication has developed with the discovery of technological tools. Then come digital communication, where we interact and deliver messages through several additional devices such as computers, cell phones, internet and many more. Communication itself comes from Latin word Communis which means the same, communico, communicatio, or communicare which means to make it the same. The first term, communis, is the term most often referred to as the origin of communication, which is the root of other similar Latin words. Communication suggests that a thought, a meaning, or a message is shared together.

Interactivity / Two Way Communication

Interactivity is one of the most talked about features of new media, taking a special place on the internet. Two researchers, Louise Ha and Lincoln James, state that interactivity on world wide web has an important dimension [7]: entertainment such as games and quizzes that can be followed by participants, the choice is to provide alternatives to the user, the connection that provide a complete site that involves users, collections of information such as demographic collections, user psychographics, and reciprocal or two way communication such as e-mail. Different than [10] who state that user's ability to communicate directly through a computer and has an impact on whatever messages are made. At the same time [12] define interactivity as an act in which during the communication process, the participants have control over roles and can exchange roles, in their mutual dialogue. Each of these approaches to interactivity is essential. And when we start to think about the internet, both meanings can occur simultaneously.

Users can interact through a computer by using available programs. But they interact with other people through chat rooms or send messages to each other.

RESULT AND DISCUSSION

Vaccination or what we usually know as immunization is the process of entering a substance into the body to help the body's antibodies recognize incoming substances and create antibodies to fight these foreign substances. Vaccines in general are viruses that are attenuated into antigens, these antigens are identified to the body as foreign substances, the immunity or antibodies in body are in charge of creating troops against viruses that enter the body, with vaccine, antibodies can recognize incoming substances and can create the right formulation to fight when similar virus enters the body. Over time, many vaccines are created because there are many new diseases caused by bacteria or viruses. Poor sanitation or modern lifestyles can create new viruses. Such as H2N1 virus or avian influenza that is suspected of originating from poultries, Mers virus which comes from wild animals, how it spreads, the scientist estimates this virus arises due to consumptive lifestyle of certain people who consume any animal as food, the virus contained in these animals can transmigrate to humans. At the end of 2019 or at the beginning of 2020, a virus named Covid 19 was found which originated in Wuhan province, an area which is still part of China, that spreads very quickly through the air, it didn't take long, this virus spread worldwide and was determined by WHO as a Pandemic. Indonesia also cannot escape Covid 19 virus. Until February 25th 2021, the amount of people exposed to Covid 19 has reached 1.306.141. For emergency management, Indonesia currently uses health protocols in the form of washing hands after travelling, wearing masks when going outside and maintaining distance from one another in public facilities and the streets.

Vaccine Registration

Currently the vaccination in Indonesia uses vaccines called Pfizer, Sinovac, Astra Zeneca. In which the distribution of free vaccines by the government is divided into 4 stages, the first stage is given to health workers who are the frontlines of handling Covid 19 virus, the second stage is given to public officials, education workers and officers who are directly dealing with community services, the third stage is given to people who are vulnerable to geospatial, social and economic conditions, the fourth stage is given to public economic actors. In line with the government's aim, it is necessary to collect data on people who receive vaccines by top down through the information system for Covid 19 vaccination single data. This data comes from related ministries or institutions or other sources which include targeted names, population identification numbers, and residential addresses. Through an information system of Covid 19 vaccination single data, data filtering is done to obtain the target group of Covid 19 vaccine recipients according to the specified criteria. The target amount of vaccine recipient groups is determined through the consideration of the Committee for Handling Covid 19 and National Economic Recovery (KCP-PEN). Technically the communication carried out in the registration for vaccination is currently at stage 1 health workers. Institutions/organizations register individuals under the auspices of organization through the registration web link and then individuals get confirmation through WhatsApp application that they are registered as vaccine recipient parties with the proof of vaccination ticket number.

Digital Communication as a communication tool in delivering information

Indonesia's population of 220 million makes communication problems as a matter of concern, in this case when the government held mass vaccinations for the citizens. Therefore a tool is needed to convey communication to public, which is mass media. Recently Communication Application has developed which is used to facilitate mass communication, the applications such as WhatsApp, Telegram.

FIGURE 1. Applications for vaccine registration are as follows

FIGURE 2. Registration mechanism

The COVID-19 vaccine registration and certificate feature is now available on the government's corona virus distribution tracking platform, PeduliLindungi. Adding vaccine registration and vaccine certificate features in PeduliLindungi application, in the form of registration of vaccine recipients and digital vaccine certificates in the application. PeduliLindungi is an application developed to help relevant government agencies in tracking to stop the spread of Corona Virus Disease (COVID-19). This application relies on the citizen participation to share location data with each other while travelling so the history tracing of contact with COVID-19 patients can be done. The citizen can check directly through the webpage https://pedulilindungi.id/cek-nik. How to Check COVID-19 Vaccine Recipients with ID Number

1. Open the webpage https://pedulilindungi.id/cek-nik via laptop or cell phone

2. Enter ID Number

3. Enter the re-new captcha code

If you are one of the initial COVID-19 vaccine recipients, it will say "Congratulations citizen with ID Number xxx you have been selected as a candidate for the FREE COVID- 19 vaccination". However, if you are not registered as one of the initial COVID-19 vaccine recipients, it will say "Sorry citizen with ID Number xxx you are currently NOT a candidate for the FREE COVID-19 vaccination for this period". Meanwhile, for those who received text messages or ID Number registered as one of the free initial COVID-19 vaccine recipients, they will be directed to re-register electronically via:

a. PeduliLindungi Application

b. Webpage https://pedulilindungi.id

c. Call 119

FIGURE 3. Information on the website https://pedulilindungi.id/cek-nik regarding registration vaccinations

PeduliLindungi is an application developed to help relevant government agencies in tracking to stop the spread of Corona Virus Disease (COVID-19). PeduliLindungi application is currently only available for Android devices and its status is still early access – under development and may be unstable. Here's how to use PeduliLindungi application from downloading, registering, to inviting family and friends to join this application:

1. Open Play Store then search for "PeduliLindungi" or click this link to start downloading

2. After the download and installation process is complete, open the application. On PeduliLindungi home page, tap "BE A PARTICIPANT" menu

3. Enter cell phone number and full name then tap "SEND OTP"

4. Enter the OTP code sent via SMS then type "VERIFY". PeduliLindungi will then ask for approval to access bluetooth, cell phone, and location (GPS)

5. Grant that access then tap "TO HOME PAGE"

6. On the home page, tap the share icon to invite friends and family to participate. The download link will be sent to them via SMS, WhatsApp, Twitter, or email

7. PeduliLindungi also has a battery saving option via Power Saving mode

8. Make sure PeduliLindungi application is always open so the application continues to function.

The global survey concluded that public acceptance level of Covid-19 vaccine in 19 countries reached 72 percent. However, the public acceptance level in Indonesia is far below that. This data is a reminder for Indonesian Government to be more aware and improve communication related to vaccines. The survey in 19 countries was conducted by researcher teams from CUNY School of Public Health and Health Policy (CUNY SPH), Barcelona Institute for Global Health (ISGlobal), Vaccine Confidence Project at the London School of Hygiene and Tropical Medicine (LSHTM), and Georgetown University Law School. The survey results were published in Nature Medicine journal.

CONCLUSION

Based on the conducted analysis and discussion, it can be concluded that there are several factors that determine the management of online vaccines. These influencing factors are obtained from several choices given by the Efficiency Improvement of Online Vaccine Service still cannot be measured because there is no socialization in training on the use of online- based vaccine applications. Several challenges are faced in the effort to accelerate Covid-19 vaccination program. In addition to the limited amount of vaccines, the readiness of supporting infrastructure and human resources
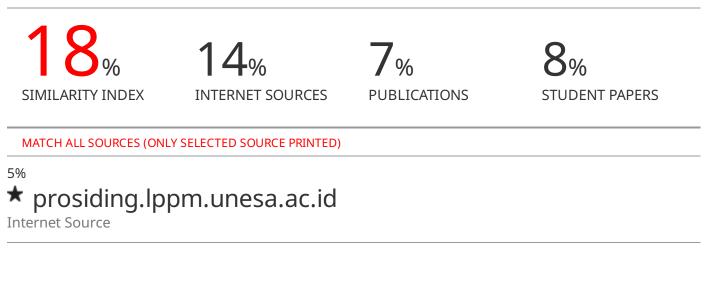
that still needs to be improved. Several efforts must be made to accelerate Covid-19 vaccination in Indonesia. Due to the limited stock of vaccines, vaccination must be based on priorities, which is health workers, elderly citizens, and public service officers.

REFERENCES

1. Agustino, L. 2020. Analysis of Policy for Handling Covid-19 Outbreak: Indonesia's Experience. Journal of Borneo Administrator, 16(2), 253–270.
2. Ahmed, S. F., Quadeer, A. A. and McKay, M. R. 2020 'Preliminary identification of potential vaccine targets for the COVID- 19 Coronavirus (SARS-CoV-2) Based on SARS-CoV Immunological Studies', Viruses, 12(3). doi: 10.3390/v12030254.
3. Aubin, D. 2009. Swine flu dampens economy. Reuters. https://uk.reuters.com/article/uk-financial/swine-flu- dampens-economy-idUKTRE53Q0TP20090427
4. Bbcnews. 2020. Covid-19: Indonesia is targeting vaccine imports in December, volunteers: "The clinical trial has not been completed, why the finished vaccine has been ordered?" Bbc.Com. https://www.bbc.com/indonesia/indonesia-54723381
5. Boyer, R.,and Drache, D. 1996. States Against Market; The Limits of Globalization. London: Routledge
6. Budiardjo, M. 2008. Fundamentals of Political Science. Jakarta: PT Gramedia Pustaka Utama.
7. Creswell, J. W. 2010. Research Design: Qualitative, Quantitative, and Mixed Approaches. Yogjakarta: PT Pustaka Pelajar.
8. Fitriani. S. 2011. Health Promotion. Ed 1. Yogyakarta: Graha Ilmu
9. Jernigan, D. B. 2020 'Update: Public Health Response to the Coronavirus Disease 2019 Outbreak - United States, February 24, 2020', MMWR. Morbidity and mortality weekly report, 69(8), pp. 216–219. doi: 10.15585/mmwr.mm6908e1.
10. Notoatmodjo, Soekidjo. 2010. Health Promotion and Health Behavior. Jakarta: Alfabeta. Heymann, D. L. and Shindo, N. (2020) 'COVID-19: what is next for public health?', The Lancet, 395(10224), pp. 542–545. doi: 10.1016/S0140- 6736(20)30374-3.
11. Rineka cipta, Rakhmat, Jalaludin. 2009. Communication Research Methods, Bandung: Remaja Rosdakarya.
12. Sahin, U. et al. 2017 'Personalized RNA mutanome vaccines mobilize poly- specific therapeutic immunity against cancer', Nature. Nature Publishing Group, 547(7662), pp. 222–226. doi: 10.1038/nature23003.
13. Sugiyono. 2007. 'Quantitative Research Methods, Quantitative and R and D', Bandung.
14. Yan, Y. et al. 2020 'The First 75 Days of Novel Coronavirus (SARS-CoV-2) Outbreak: Recent Advances, Prevention, and Treatment.', International journal of environmental research and public health, 17(7). doi: 10.3390/ijerph17072323.
15. Zu, Z. Y. et al. 2020 Coronavirus Disease 2019 (COVID-19): A Perspective from China, Radiology, 2019, p. 200490. doi: 10.1148/radiol.2020200490

Critical Analysis of Digitalization Implementation For Covid 19 Vaccination Registration

Critical Analysis of Digitalization Implementation For Covid 19 Vaccination Registration

FINAL GRADE

/0

GENERAL COMMENTS

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6