Indonesian behavior of information related to covid-19

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1. Introduction

The development of communication and information technology should be able to accelerate the process of dealing with Covid-19 in Indonesia. Through various existing digital media, information about Covid-19 which is expected to have a positive impact on the community, can be easily accessed. Government policies related to Covid-19, Covid-19 distribution maps, vaccination processes, and education regarding health protocols are various information that should be highlighted in various digital media. Thus, public awareness of the importance of taking preventive measures against COVID-19 can be further increased. However, it turns out that the amount of information in digital media also has a negative impact on the community itself. The phenomenon of hoaxes and infodemics cannot be avoided, and is actually getting more and more worrying. More than 90% of information in the health sector cannot be accounted for because it has unclear sources and spreads on various social media [1]. Meanwhile, the other research, show that health organizations that provide correct clarification of health information do not spread as widely as the spread of hoaxes themselves. This shows that health hoaxes are consumed by more people and spread faster than valid news [2].
Therefore, it is not surprising that there is a lot of hoax information circulating in the community, resulting in many people being antipathy to the vaccination program carried out by the government. As well as many among the public, who still think that Covid-19 is a global conspiracy, so they don't want to carry out health protocols because they are influenced by this hoax news.

Hoaxes have had a big impact in this Covid-19. The number of deaths continues to rise because many people believe in hoaxes. The connection between hoaxes and the increasing number of deaths lies in the dissemination of informational elements. While not nec-essarily evident to their recipients, informative elements transmit a series of ideo-logical thoughts or views that seek to change the subject’s political and social perspectives [3].

The rise of hoax news related to Covid-19 is one of the disturbances that has the potential to slow down the Covid-10 response process in Indonesia. Many people are deceived by various false/untrue information. We all know that hoaxes are currently increasing along with the digital transformation that allows the process of information dissemination to be faster. Digital transformation, i.e. “a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies”.[4]

Through various digital platforms, various negative issues related to these hoaxes are very easy to spread. For example, regarding the issue that Covid is a biological weapon created in a laboratory. American study in July 2020 found that 37% of respondents believed COVID-19 to be a bio-weapon deliberately engineered by the Chinese [5]. Nor is this solely an American phenomena: in the UK, 30% of those surveyed deemed the statement “COVID-19 was probably created in a lab” to be true [6].

This, of course, must get serious attention from various parties. The government with various existing policies must be supported by various active roles from the community itself. This active role can be realized in the form of the information behavior of the people themselves. Information behavior is an activity to seek, utilize information from various channels/media [7]. This activity begins with identifying information needs, seeking information through various sources and information channels, as well as using or transferring information.

Thus, it is expected that the public should be able to identify, seek, utilize and transfer information from various channels/media. In the process of seeking information, it is hoped that the community will be able to choose a clear source of information according to their needs. Next, the community is expected to be able to transfer the usefulness of the information to others. Thus, there will be more positive information circulating in the community, and it is hoped that there will be an increase in public awareness to take measures to spread Covid-19.

Research related to people's behavior in the Covid-19 pandemic has so far only focused on the negative side (hoaxes), such as: 1). User Behavior of Hoax Information on Social Media by Rahadi in 2017, where the results of the study show that there is a diversity in the behavior of social media users in responding to hoaxes due to different user backgrounds [8]. 2). Health Information Literacy as an Effort to Prevent Hoax Information in the Use of Traditional Medicines in the Digital Era by Prasanti in 2018, the results of this study indicate that health literacy can be used to prevent hoaxes in the use of traditional medicines. Some elements of health literacy include: selected health service information media, reference sources in cross-checking the truth of information related to prescribed traditional medicines and appropriate decisions taken in disseminating traditional medicine information [9]. 3). Community Behavior Regarding the Spread of Covid-19 Hoaxes by Christiany Juditha in 2020, the results of the study show that the knowledge of respondents regarding Covid-19 and hoaxes is very adequate. However, most respondents sometimes face doubts to distinguish true and false information (hoax) because a lot of information is obtained every day. The public panic about Covid-19 has resulted in hoaxes being disseminated in the hope that the information will still be useful. On the other hand, most of the respondents did not spread the Covid-19 hoax because they considered the information to be untrue, not useful, endangering the health of others, and actively participating in stopping the spread of hoaxes reaching themselves [10]. 4). Susceptibility to miss information about Covid-19 around the world by Jon Roozenbeek ini 2021, this research fin that higher trust in scientists and having higher numeracy skills were associated with lower susceptibility to coronavirus-related misinformation. Taken together, these results demonstrate a clear link between susceptibility to misinformation and both vaccine hesitancy and a
reduced likelihood to comply with health guidance measures, and suggest that interventions which aim to improve critical thinking and trust in science may be a promising avenue for future research [11].

Looking at the previous studies that have been carried out as above, this research will examine the information behavior of the public in accessing news about Covid-19, both positive and negative news (hoax). This study aims to look at the public’s tendency to access Covid-19 news, how the Covid-19 news affects their behavior, as well as how people behave when they find hoax news about Covid-19.

2. Theoretical Framework

2.1. Information Management Challenges in the Digital Age

| Table 1. Development of Information Management Studies [12] |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Information management still uses paper and non-electronic media with a limited scope. Many focus on maximizing the speed, accuracy, and efficiency of processing and maintaining transactions or records. This is like what Choo and other experts Vannevar Bush (1945) said, who envisioned an electronic system to help consult at high speed. | The main task of information management is to introduce new mechanisms, namely starting to cover the area of data maintenance and use for organizations for decision making. The characters include: Herbert Simon (1976) who is famous for bounded rationality, Galbraith (1977), and Horbon (1979), and the Commision on Federal Paper Work who introduced the paperless concept. | The development of information management studies in this period answered the problems in the previous period, the findings of Weick & Daft (1988) answered Simon’s problems with the use of PCs, Landscale (1988), answered Bush and the introduction of the concept of business intelligence by Sutton (1988), and Record Management of Torn, Brown & Walmer (1997). | In this period Information Management focuses on the stages of information architecture with experts Davenport McGee & Rainer (1995). Information Governance was also introduced by Davis and Hamilton (1983). Information Management is used for library management as suggested by Brarin (1993) and Horland (1996). | In this period information management experienced rapid development with the help of technology. As stated by Choo (2002), Bralin (2000), Jones (2000), Teevan, Jones & Baderson (2006), Barreau (2008). Information management is used by business, library and private institutions. Other figures such as: Wilson, Detlor, Karim, Baltzan, Elseiver, (2006) who convey a lot about the process and benefits of information management. | Information management still uses paper and non-electronic media with a limited scope. Many focus on maximizing the speed, accuracy, and efficiency of processing and maintaining transactions or records. This is like what Choo and other experts Vannevar Bush (1945) said, who envisioned an electronic system to help consult at high speed. |
Based on the table above, it can be seen that studies related to information management are still not widely carried out in developing countries, such as in Indonesia. In general, information management studies that are conducted also only examine how information management in an industry, in this case how the industry is able to build information management according to their needs. Existing information management studies have also not been carried out in crisis conditions, regarding how information management is able to play a role in overcoming crises such as the Covid-19 pandemic.

Information management, is often interpreted as information management in information technology management and information policy management in information technology management, including information policy management [13]. This information management process consists of efforts to obtain, create, organize, distribute, and use information. Information management is the application of management principles, which include: retrieval, management, control, dissemination, and use of relevant information [14].

Information management can be seen as a planned process, starting from the information gathering process, to its use to support decision making at all levels of the organization. In this regard, information management has the characteristics of "getting the right information to the right person at the right time. It does not, however, address the question of what constitutes the right information", which can be interpreted as providing the right information to the right party at the right time [15].

There are two approaches to information management, namely the content approach and the technology orientation approach [16]. The content approach refers to information and its use which includes human-centred information storage and management. The technology orientation approach includes data management, information technology management, and strategic information technology management. In this dissertation, the researcher focuses on the second approach, which is related to technology orientation.

In an effort to carry out information management that focuses on technology orientation, it is hoped that later it will be able to assist individuals and organizations in accessing and using information effectively and efficiently. Information management, is a control/process to achieve organizational goals. In this case the information can be managed properly, if the production of the information is carried out to contribute to organizational goals, the relationship between information and organizational achievement targets can be displayed clearly and can be tested empirically. Reveals information management as the application of management principles such as: acquisition, organization, control, dissemination, and use of information relevant to various organizational activities [17].

Based on these information management concepts, a common thread can be drawn that the challenge of information management is how an organization is able to use, process, and disseminate information to support the organization's own activities. During the Covid-19 pandemic, of course, expertise is needed from the government to build good information management, so as to encourage positive information behavior from the community to play an active role in overcoming this Covid-19.

2.2. Information Behavior In The Time of Pandemic Covid-19

Throughout his life, humans need information to support various activities. Activities to obtain information, often referred to as information behavior. Information behavior is an activity to seek, utilize information from various channels/media [18]. This activity begins with identifying information needs, seeking information through various sources and information channels, as well as using or transferring information.

Information behavior is the overall human behavior related to sources and channels of information, including the behavior of seeking and using information, both actively and passively. Information behavior is identical to information seeking behavior, which is a search behavior which is generally associated with interactivity with information systems. This behavior is closely related to the form of behavior with the system, both at the level of interaction with the computer (eg the use of a mouse or the act of clicking a link), as well as at the intellectual and mental level.
The process of searching for public information in today's digital era can be easily done through existing digital media. During the Covid-19 pandemic, the government has also built communication media that can be used to meet information needs related to Covid-19, one of which is the existence of an e-government platform. E-government is a way of utilizing communication and information technology tools and systems to provide good public services to the community [19]. The term e-government or electronic government refers to the use of information technology by government organizations to make these organizations more effective and transparent [20].

Through www.covid-19 the government has attempted to build an e-government platform to bridge the information needs of the public. Various information is displayed there, be it news, statistics, maps of the spread of Covid-19, questions and answers, as well as complaint services including hoaxes. What the government does is a strategy to encourage healthy public information behavior. Where people who need various information related to Covid-19 can access the e-government account. Through this e-government, the public is expected to get convenience in relation to accessing Covid-19 information. The development of e-government projects need to be contextualized into the scope of public organizations: if the extent of the private sector is to create private value, the public sector must not serve special interest, but the society as a whole [21].

3. Method

This research was conducted using mixed methods, namely qualitative and quantitative approaches. Mixed methods is research that involves the collection, analysis, and interpretation of quantitative and qualitative data in one study that investigates the same underlying phenomenon [22]. Qualitative is done by conducting interviews, and literature study. Interviews were conducted with selected respondents, as well as open-ended questions in the questionnaire. The literature study was carried out by looking for data from books, journals, and online news related to Covid-19. While the quantitative is done by distributing questionnaires to 400 respondents at random. The formula for sampling is done using the Slovin formula, as follows.

\[ n = \frac{N}{Nd^2 + 1} \]

Where n is the number of samples, N is the total population (internet users in Indonesia are 175.3 million, d is the precession level with an error rate of 5% and a confidence level of 95%). So the total respondents in this study were 399.9 = 400 people. With this questionnaire, researchers obtained data related to the behavior of public information in various information/news related to Covid-19, not least related to public attitudes with the rise of hoax information/news which disturbed the public a lot.

4. Results and Discussion

The quantitative data in this study involved 400 respondents from various professions in various regions in Indonesia with various professions, such as: students (46%), lecturers (25%), civil servants (12%), entrepreneurs (8%), private employees (6%), others (3%). All of the respondents here are active internet users, 91.5% of whom always access information related to Covid-19. The questionnaires in this study were distributed online to reach respondents from various regions in Indonesia. The various questions in this study are aimed at finding out how their information behavior is related to Covid-19. Meanwhile, qualitative data was obtained by conducting interviews with selected respondents as well as literature studies. It is hoped that the data obtained in this study can be more in-depth and able to answer the research questions.
### Table 2. Data Presentation

<table>
<thead>
<tr>
<th>Number</th>
<th>Question</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Following Covid-19 Information</td>
<td>91.5% follow Covid-19 information, 8.5% did not follow Covid-19</td>
</tr>
<tr>
<td>2</td>
<td>Media used to access Covid-19 information</td>
<td>55.3% from social media, 27% from online news portals, 11.9% from electronic media, 3.3% from other media, and 2.5% from chat applications.</td>
</tr>
<tr>
<td>3</td>
<td>Duration of time per day to access Covid-19 information</td>
<td>81.8% that it was less than 1 hour, 13.5% stated 1-2 hours, the rest stated that 2-4 hours per day were used to access Covid-19 information.</td>
</tr>
<tr>
<td>4</td>
<td>Types of frequently accessed Covid-19 information</td>
<td>42.9% more often access information related to the development of Covid-19, 29.1% access government policies related to Covid-19, 9.7% accessed more about the Covid-19 health and education protocol. While the rest more often access about social impacts, economic impacts, as well as other Covid-19 features.</td>
</tr>
<tr>
<td>5</td>
<td>Benefits of Covid-19 information on the implementation of health protocols</td>
<td>71.7% stated that information about Covid-19 provided benefits for the implementation of health protocols, 28.3% of respondents stated that information about Covid-19 did not provide benefits for the implementation of health protocols.</td>
</tr>
<tr>
<td>6</td>
<td>The amount of information on Covid-19 is causing unrest for the public</td>
<td>61% stated that a lot of information about Covid-19 actually caused unrest for the community, 39.3% stated that the information about Covid-19 did not create unrest for the public.</td>
</tr>
<tr>
<td>7</td>
<td>Have/didn't access Covid-19 information from the Covid-19 Task Force of the Republic of Indonesia either through the website/application.</td>
<td>53.1% said they had, 27.8% said never, and 19.2% said it was possible.</td>
</tr>
<tr>
<td></td>
<td>Types of Covid-19 information from the Covid-19 Task Force that are often accessed</td>
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<tr>
<td>8</td>
<td>21.9% stated that they often access Covid statistics, 21% stated that they often access Covid-19 reporting features, 16.7% stated that they often access Covid news, 13.7% stated that they often accessed the Covid-19 distribution map, and 10.7% stated that they often access Covid-19 regulations/policies.</td>
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|   | Have you ever received hoax information? |   |
|---|---|
| 9 | 52.9% of respondents stated that they had received hoax information, and 47.1% that they never received hoax information. |   |

|   | How to check the information received is a hoax |   |
|---|---|
| 10 | 37% stated that they knew the information was a hoax from social media, 20.4% stated that they knew the information was a hoax from the results of googling on the internet, 14.9% stated that from other sources they knew the information was a hoax, 10.6% stated that they knew the information was a hoax from electronic media, and 8.9% stated that they knew the information was a hoax from the print media. |   |

|   | Response After Knowing The Information is Hoax |   |
|---|---|
| 11 | 28% said they let it go, 19.8% stated that they immediately reported/blocked the information, 18.5% stated that they used other methods, 17.3% stated that they continued to disseminate the information and told them to be careful, and 14.7% stated that they immediately deleted the news. |   |

|   | Efforts Made to Reduce Hoax Information |   |
|---|---|
| 12 | 33.3% stated that they had limited access to information, 30.9% stated that they provided education to the public, 19.3% stated that they chose other ways to deal with hoaxes, and 10.3% stated that no efforts were made to reduce hoax information. |   |

|   | Hoax Information Inhibits Covid-19 Response |   |
|---|---|
| 13 | 78.8% stated that hoax information hindered the handling of Covid-19, and 21.1% stated that they did not hinder the handling of Covid-19 |   |
The results of this study indicate that the majority of respondents follow information about Covid-19 through social media. Social media is indeed the most widely accessed media by our society today. The development of digital media that gave birth to social media, with the various features it offers, causes people to be so close to it. The freedom to produce and distribute messages in the form of writing, images, videos is an advantage of social media. Freedom on social media is associated with freedom of expression and freedom to access the internet. We all know that the internet has become a new space for individuals to express and seek information. The internet is a largely open protocol, the state in general makes efforts to limit and sometimes even co-opt freedom in the internet [23].

Indonesia is itself one of the countries with the most social media users in the world. The high number of social media users in the world must be accompanied by awareness from the people themselves to be wise in social media. Wisdom in social media can be done by accessing, choosing, reading, and spreading good news that can benefit the community itself. Unfortunately, crimes on social media, such as: hate speech, fake news/hoax, infodemic, misinformation, and disinformation are also unavoidable.

In the context of COVID-19, a recent analysis of the most viewed coronavirus YouTube videos found that over 25% of the top videos contained misleading information and totalled 62 million views worldwide [24]. There is also evidence to suggest that exposure to misinformation about the virus may be more common than often assumed. For example, a poll by Ofcom in the UK found that almost half (46%) of the British population report exposure to fake news about the coronavirus [25]. The number of hoax news about Covid has had a tremendous impact. Hoax related to the covid conspiracy, vaccination has hurt the experts who have worked hard to solve this covid. This has never happened before [26].

Efforts to protect the public against crimes on social media must have a legal umbrella that provides a deterrent effect for the perpetrators. Given the impact of crime on social media during the Covid-19 pandemic, it is very large. Many people are antipathy to health protocols because they are consumed by hoax news saying that Covid-19 is not real, and is only a global conspiracy. The issue of hoaxes about the impact of vaccines has also had a negative effect on the reluctance of the public to vaccinate. This has resulted in the number of victims of Covid-19 to this day continuing to increase sharply. In DKI Jakarta alone, data as of June 24, 2021, the number of victims who died on that day reached 180 people, the Covid-19 funeral provided by the DKI Jakarta government was no longer sufficient. The DKI Jakarta government even had to add new land, to be able to accommodate the bodies of Covid-19.

If it is like this, who should be responsible? Blaming the government is indeed an easy thing to do. But is this the government’s fault? Certainly not. The government has made every effort to create programs and policies that can reduce the spread of Covid-19 itself. The government is actually confused by people who are not responsible for spreading hoax and infodemic news, which results in the handling of Covid-19 being not optimal. Since the dawn of the pandemic, a dichotomous set of narratives either dismissing the novel coronavirus as an outright hoax or alternatively insisting it has been engineered and spread have garnered serious traction. Typically, these claims posit that the virus, either fictional or engineered, is a means to suppress freedoms on a global scale [27].

That is why until now there are still many people who do not believe in covid. In response to this, of course, awareness is needed from the community itself to be able to play an active role in providing education to the community. The community can act as an agent of change, to participate in providing education to other communities. The community can act as an agent of change, to participate in providing education to other communities. From the results of this survey, public awareness not to spread hoax news is quite good. This can be seen from 52.9% of respondents who have received hoax information, 37% of respondents checked the hoax information through social media, then 28% of respondents stated that they just let the hoax information and did not shared it.

From the results of this survey, people who disseminate hoax information also seem to have a good awareness to inform that the information is a hoax. This was evident when they were further asked why they were still spreading hoaxes, their reason was so that others would also know that the information was a hoax. Then related to how respondents to suppress the spread of hoaxes as much as 33.33% of respondents stated that they chose to reduce access to information.
This seems appropriate to do, considering that hoax information is currently circulating on social media. If people do not have good digital literacy, then reducing access to social media is the right step to reduce the spread of hoaxes. Social media platforms themselves can actually play a role in stopping the spread of this hoax. Social media can provide services to check whether the information that will be disseminated by users contains false information. For example, Facebook, Instagram, and YouTube on the information posting page can add this feature, so that users who want to share information can find out whether the information contains hoaxes or not. Thus users will also be careful in disseminating information/news.

Regarding the behavior of the community's own information regarding Covid-19, the public must have the right knowledge, attitudes, and actions [28]. Knowledge is related to understanding any available information. Attitude is related to the meaning of that knowledge. Action is related to the behavior of the process of interpreting that knowledge. The results of this research survey, the community actually already has a fairly good information behavior related to Covid-19, as evidenced by as many as 91.5% of respondents in Figure 1 stated that they always access information related to Covid-19 from social media, chat applications, media electronic and other media.

As for the type of information they ask for, as shown in Figure 8, the majority of respondents, namely 21.9%, accessed Covid-19 statistics more often. 16.7% of respondents often access Covid news. 13.7% of respondents often access the Covid-19 distribution map. This shows that updated information related to Covid-19 is very much needed by the community. Therefore, the government, the media, as well as Covid-19 activists should be able to optimize various digital platforms to disseminate various information related to Covid-19. The government itself, through various existing e-government tools, has attempted to optimize various information related to policies, statistics, distribution maps, news about covid, confirmation of hoaxes, as well as question and answer services. Through e-government, it is expected to be able to provide better services to the community, the internal effectiveness of government organizations is increasing and public access to information within the government environment is getting easier.

Efforts that need to be increased in relation to the provision of information through the government's e-government platform is to increase the number of visitors. The data shows that government e-government accounts, especially local governments, are still not optimal in terms of visitors. In addition to packaging messages that are in accordance with the intended target, the appearance of both design and layout must also be considered properly. Thus, visitor access is expected to be further improved, and the purpose of delivering government information can also be well received. Furthermore, the interesting thing in this study compared to other studies, is that the majority of the people in this study stated that they spread hoax news to educate the public that the news was not true and the public should be careful. This finding contradicts Rahadi's research (2017), which states that one of the reasons for using social media is to influence the opinions/attitudes of others.

If analyzed more deeply, a person's motivation in disseminating hoaxes can indeed vary. This is inseparable from a person's motivation in accessing their own social media. Everyone can choose the content to be selected/produced/distributed. This motivation is very individualistic, the main factor that causes someone to access social media is the fulfillment of the needs of each individual. If the content on social media provides benefits to individuals, someone will access the information, even though the information may not necessarily provide benefits to the social environment.

Based on this, it is clear that we can approach the handling of hoaxes with a personal approach, one of which can be done by approaching the people around them. People around who know how the characteristics of other people are expected to be able to provide education related to various information that should be selected related to Covid-19. Thus, it is hoped that efforts to handle Covid-19 will run more optimally.

People who have been exposed to Covid-19 can also play a role in educating the public. This is in line with the Digital Volunteer Network Theory approach emphasizing the importance of the role of experts from volunteers, parties affected by disasters can be key actors in mobilizing the community regarding a social phenomenon that is currently happening. In some cases the individual affected by the crisis is the first party to act as a driver [29].
This is in line with what was conveyed by Korset (2013), which said that the role of the affected individuals became more important in this information age. They are expected to be able to become the main source of news, messages, as well as share and produce large amounts of information quickly sourced from direct experience [30]. People who have been exposed to Covid-19 can tell in detail how they first contracted Covid, what symptoms they felt, the experience of undergoing independent isolation as well as during intensive care in hospitals and even feeling negative stigmas from the community themselves. Through a personal approach with the closest people, especially those who have been affected by Covid-19, it is hoped that they will be able to influence changes in knowledge, attitudes, and behavior of people who until now still do not believe in Covid-19.

Covid-19 is a national disaster that should be faced together. Social sensitivity to want to share with others is the key to solving this Covid-19. Experts or people who have expertise in a field must be willing to provide various education to the public. People who have been exposed to Covid are also expected to share to spread positive messages to the community. Senses of community have a dominant role in these conditions, which in turn can change social bonds.

5. Conclusion

The results of this study indicate that the behavior of the Indonesian people regarding Covid-19 is good. This is evidenced by the attitudes, behavior, and actions of the people themselves who always access Covid-19 information through social media, chat applications, electronic media, and other mass media. The majority of the information they always access is related to statistics, news, and also the Covid-19 distribution map through the Indonesian government's e-government. People also always verify the information they receive, if the information they receive is a hoax, they will report the information, so that it doesn’t spread to other people. Many of the respondents always tell others if there is hoax information, so that they are careful.

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