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# Digital Literacy for Covid 19 Information in Indonesian Society

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# Digital Literacy for Covid 19 Information in Indonesian Society

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### **Abstract**

In the midst of the COVID19 pandemic situation, hoax news emerged that made people panic and make wrong decisions. The emergence of this hoax is because many people are not literate with information, so they trust all the information entered. People also do not have the social awareness to filter the information they get. This study aims to describe the level of literacy of the digital community towards COVID19 information measured on the internet. The research method used is a descriptive type with a survey method. The research location was in East Java, with a total of 500 respondents consisting of several segmentations of people who actively use the internet as a source of information. The results of this study indicate that the digital literacy level for COVID19 information is good with an average value of 3.69. Of the five dimensions of digital literacy that are used as the highest measuring tool of the very high ethical awareness dimension, the second position is the media evaluation dimension, the third is media production, the fourth is media access, and the fifth is media awareness.

**Keywords:** digital literacy, covid-19, society, hoax, corona virus, health information

#### I. Introduction

The world was shocked by the emergence of the new corona virus (novel corona virus) which was then called the corona virus disease or abbreviated as COVID19, including Indonesia, which in early March announced the first case of COVID19 through various mass media. WHO also stated that COVID19 is a pandemic. Since then the public has started to seek as much information as possible about Corona or COVID19. Since the beginning of March, searches using keywords searched on the Google search engine with the keywords "corona virus", "corona", "covid", "covid 19", and "corona virus" have increased quite extreme. Likewise, the questions (queries) that were asked related to the corona virus jumped drastically, here are the questions asked regarding the corona in Indonesia "corona Indonesia", "the Indonesian corona virus", "corona in Indonesia", "what is the corona virus", "corona symptoms ", And" the characteristics of corona "(Chryshna, 2020). Seeing so many questions about the corona virus shows that the Indonesian people are very curious and pay great attention to this virus. People also feel scared and panicked so they want to get as much information as possible about the corona virus from various sources including the internet and social media.

Even though the government has provided information about Covid 19, through BNPB or the Ministry of Health, there are also many irresponsible parties who take advantage of this situation by making false information (hoaxes) with the aim of seeking profit. Until mid-March 2019, there were 196 hoax information related to corona found in Indonesia (Putri, 2020). With the emergence of hoax news, people often panic and make wrong decisions. The emergence of this hoax is because many people are not literate with information, so they trust all the information that is circulating. People are also lazy to find the truth of information, this is what makes Hoax increasingly growing. People also do not have social awareness to filter the information they get (Saptanto, 2018).

The public has also suffered a lot from hoax news related to Covid, including mental discomfort, stress, abnormal heart responses, and erratic reading. In addition, it also affects a

person's psychological condition if they do not have the desire to find the truth of information. On a broader scale, the impact of hoaxes on society is that it can divide the nation (Saptanto, 2018).

In the digital era, people need good digital health literacy skills to avoid hoaxes (Priatna, 2018). However, with the diversity of community backgrounds, a person's digital health literacy ability has different levels. Many studies on digital health literacy have been conducted, including instruments measuring digital health literacy (Van der Vaart, Drossaert, 2017), IT in health literacy (Bickmore, Paasche-Orlow, 2012), (Dunn, Hazzard, 2019), (Smith, Magnani, 2019), digital divide (Estacio, Whittle, Protheroe, 2019). Most of the results of the studies above are related to digital health information centers with a focus on health in general. There are still few studies that review the digital health literacy of the corona virus on the internet and social media in Indonesia. For this reason, it is necessary to conduct research that aims to determine the digital literacy of Covid 19 in Indonesian society.

## II. LITERATURE REVIEW

The emergence of hoax / fake news (fake news) and its potential in the midst of the Covid-19 pandemic has raised serious concerns. Fake news is a serious problem for society. News is available via a growing variety of digital and social media, coupled with its ease of access and sharing capabilities have allowed fake news to spread at an unprecedented rate. Digital information literacy skills are playing an increasingly important role in helping interpret the wealth of information available in the digital age. As stated by Bulfin, S. and K. McGraw (2015), people, especially young people, really need digital literacy skills. These skills make it possible to place information in context, to distinguish fact from fiction, and to recognize deliberate misinformation when we encounter it. Furthermore, the research conducted by Kusumarani (2018) states that digital literacy education for young people is important because young people are the most vulnerable generation in the media used. In addition, young people are expected to become agents of change to solve problems in digital society. For that he is

encouraging efforts to reduce the spread of fake news, especially in Indonesia, so that people are smart in responding to fake news that spreads quickly through various media.

The Oxford English Dictionary defines news as "recently received or important information, especially about current events." For example, when news was once considered a local, national or global story in a print newspaper or on radio or TV, there are now many more ways to read, listen to., share and create news, including online and via social media. While fake news is "completely fabricated, manipulated to resemble credible journalism and attracts maximum attention" (Hunt, 2016) and (Rubin, 2017) describe fake news as covering five types of fake news: deliberately deceptive, jokes based on face value, large-scale hoaxes, skewed reporting of real facts, and stories where the truth is contingent

The term digital literacy was first defined by Gilster (1997) which emphasized critical thinking skills in addition to information technology skills. Within 20 years, the definition of digital literacy has developed, including its measurement method. Digital literacy involves acquiring, understanding, evaluating, and using information in various digital technology contexts (Sparks, 2016). In short, digital literacy involves a variety of goal-driven interactions with information sources and products in a digital context, including the ability to define and set goals for information seeking and retrieval; successful access to relevant materials; evaluate the quality of the sources taken and their reliability; arrange the sources of the information contained therein in a scheme that is in accordance with one's goals; understand varied and potentially conflicting information by integrating multiple sources; and use that unified understanding to answer questions, solve problems, or create digital media products that make effective use of information.

Several conceptual frameworks for measuring digital literacy are presented by Eshet (2004) who proposes a conceptual framework for digital literacy which includes photo-visual literacy; reproduction literacy; branching literacy; information literacy; and socio-emotional literacy. Furthermore, Calvani (2008) states that "Digital literacy merges capabilities: purely

technical aspects, intellectual competences and also competencies related to responsible citizenship".

We call on the government to take a leading role in instilling critical literacy teaching in society. It can partner with schools, businesses, media, libraries, communities and voluntary sector organizations to support youth, parents, and teachers. Each has an important role to play in enabling people to acquire the knowledge, confidence and literacy skills they need to actively engage with the vast number of news sources currently and growing in this digital age. Society today is growing in a globalized world and is processing information from a wider variety of sources than ever before. Many have grown up with the online world being available as a constant and convenient source of information, but they may not have the knowledge and skills needed to judge the reliability of what they find there.

## **Digital Online Media Literacy Assessment (DOMLA)**

The constructs used in this study adopt the results of Hallaq's (2016) research, namely: media awareness (MAw), media access (MAc), ethical awareness (EA), media evaluation (ME), and media production (MP). Media awareness (Maw) is the user's awareness of the use of digital media such as design features, devices used, digital conversion. Media access (MAc) includes the skills and competencies needed to find media content, using available technology and related software. Ethical awareness (EA) is public awareness of which digital information can and should not be distributed to others. Media Evaluation (ME) is the community's ability to analyze digital information that they receive or get. media production (MP) is the society's ability to process the information it receives and reproduce it for distribution.

#### III. RESEARCH METHOD

This study uses a descriptive type using a survey method to describe the digital literacy of the Indonesian people towards Covid 19 information. By measuring the digital literacy of the community, it can be seen whether the community is wise in finding and utilizing information related to Covid 19 so that the research results will be obtained from a strategic policy formulation in overcoming Covid. 19 from the psychological-social aspect.

The location of this research is in East Java Province. The population of this research is the people of East Java Province a who are classified as adults, starting at the age of 20 years. The sampling technique used cluster random sampling. The clusters used are academics, formal workers, non-formal workers, and housewives. The number of samples used was 500 respondents.

### IV. RESULTS AND DISCUSSION

The number of respondents in this study was 500, including 21% male and 79% female. Most respondents are aged 10-39 years, which is 83%. This age group is an active user of smartphones and social media. From the results of these respondents will later affect the results of the answers to the use of covid information sources by the community.

The form of information that is most often received is digital, at 90.6%. Respondents often get information from social media accounts as well as information that can be accessed online. Other forms of information received included printed forms / leaflets of 2.2% and spoken / spoken forms of 7.2%. According to the results of previous research, it also shows that people prefer to seek health information through social media, one of the things that makes social media attractive is the interaction between users, although the quality of information needs to be reviewed (Zhao & Zhang, 2017). The health information sought includes cancer, diabetes, and obesity, these three health information are mostly experienced by users, and currently searching for COVID information through social media is also widely carried out. However, social media is also considered to be an easy media to use to spread fake news or hoaxes, fake news or hoaxes will be dangerous if users are led to fake reviews and fake information related to health products (Viviani & Pasi, 2017). False information will be dangerous because not all users have the instrument and the capacity to assess information on social media (Viviani & Pasi, 2017). Furthermore, social

media such as Facebook has become an important platform for disseminating health information during a pandemic, this happened when the Zika virus appeared, where many videos could be used as a media for public education related to the Zika virus which were distributed via Facebook (Sharma, Yadav, Yadav, & Ferdinand, 2017). During a pandemic such as the spread of the COVID19 virus, education and dissemination of credible information that is fast and accessible to the whole community are needed, related parties can use social media to provide educational content that is easily accessible and easily understood by the public. A lot of unverified information is circulating through social media and people easily believe it when the information is labeled 'news' or 'news' even though the information is not necessarily true (Oh & Lee, 2019). Seeing this condition, more and more people can be misled by the information circulating from social media, especially those who do not have an information literacy background. The use of social media to disseminate covid information is indeed quite significant on a global scale, one of the most intensive institutions to spread covid information via Facebook and Twitter is WHO, where they broadcast a lot of information through the Facebook newsfeed and direct users to credible sources, then social media This can also be used as a medium to counter fake news (Merchant & Lurie, 2020).

Nowadays people also find it difficult to get information in printed format, such as books, magazines and newspapers. Apart from the much higher price, this printed information source is also less up-to-date in presenting information. People also need a big effort to get information about Covid through printed sources. For information providers, conveying information through printed formats is also considered less effective, takes longer in the printing and distribution process, and requires higher costs. The use of applications to disseminate information has also appeared a lot and can contain information in the form of writing, images, and videos.

Most of the respondents use the internet more than 4 hours per day as much as 60.6%. During this pandemic season, most activities take place online. Hence internet usage is more frequent than usual. Furthermore, 3-4 hours as much as 30.6% and 1-2 hours as much as 8.8%.

Every month, the budget spent by most of the respondents for buying data packages is Rp. 50,000.00 - Rp. 100,000.00. Some of the respondents admitted that they preferred buying a new number because the price of the data package was cheaper. As many as 38.8% of respondents have to spend money to buy data packages per month amounting to more than IDR 100,000.00. Because most activities are carried out online, many of the respondents chose to install an internet service provider (ISP). Only 16% budgeted less than Rp. 50,000.

Most of the respondents are academics, namely 51% consisting of lecturers, teachers, students, students, and researchers. Apart from academics, 24.4% work as formal employees, including bank employees, state-owned enterprises, private employees, civil servants, and librarians. Housewives were also 14% respondents in this study. Even though as housewives who carry out domestic activities in their families, they are always actively following the development of Covid news. There are also many housewives whose activities go out to shop for household needs, but are exposed to the Covid virus. So there is a lot of curiosity about the causes of Covid to how to deal with it. Many housewives today have cellphones so that access to information via the internet is no longer a rare activity for housewives. They are required to be information literate in order to protect their family members. The rest, 10.6% work as non-formal employees such as household assistants, online motorcycle taxis, lecturers, traders, online shops, health workers, and entrepreneurs.

Sources of information that are often used include social media (Whatsapp, Line, Instagram, Twitter, Blog, Facebook), online news, official government websites, Line today, YouTube, newspapers, television, books, magazines, webinars, search engines, journals, radio, comics, quora, and movie streaming. Social media is a source of information that respondents often use. Dissemination of information through social media is very fast and in accordance with the characteristics of the respondents. Social media formats that are simple, user friendly, and familiar to respondents are the main choice for accessing information related to Covid. Therefore, socialization related to the handling of Covid is considered effective through social media. The

community uses social media to access information related to COVID, one of which is through Whatsapp, Instagram, Twitter, Blog, and Facebook, YouTube, these social media have features and strengths that different. Instagram, which appeared for the first time in 2010 and to date has more than 1 billion active users worldwide, focuses on information in photo and video formats, and to date, more than 50 billion photos have been shared, and every day 50 million more photos and videos uploaded via Instagram (omnicore, 2020). Currently 22.6% or more than 61 million of Indonesia's population are active users of Instagram, 50.8% of female users and the largest group of users aged 18-24 years, 37% (Teknokompas, 2020). Users in Indonesia like Instagram because it is easy to use, good application performance on smartphones, emphasizes photos (Kompasiana, 2019). Referring to the large number of Instagram users, business people, individuals, governments use Instagram a lot for various purposes such as promotion, branding, and information sharing. Facebook and Twitter are also frequently used by users to search for information. Likewise, Facebook, which was once the most widely used social media by Indonesians, also offers easy-to-use and smartphone friendly features.

Nowadays, technology has become something that is mandatory in all aspects of life. One of the technologies that many people currently use is cell phones or cellphones. Mobile is the most practical technology device and can be taken anywhere. As reported by maxmanroe.com, a smartphone is a cellular phone that is equipped with various advanced features and high capabilities such as a computer. A smartphone can be called a mini computer in the form of a mobile phone. People can access various communication, educational, social applications using only smartphones without having to open the computer. Mobile is a communication tool that can be used for various purposes such as education, economy, health and others. Almost all types of cellphones already have sufficient features and services to help with daily activities. One of them, can be connected to the internet. Especially for the level of students and students who in fact enjoy practical things, they can use cellphone services that can connect to the internet for browsing, so that they can get information easily and quickly and can be done anytime and anywhere. In addition, it can be used for sharing knowledge so that they can exchange ideas by using these electronic devices.

The Indonesian Internet Service Providers Association (APJII) in 2018 released data on the use of smartphones to access the internet in Indonesia. In urban areas, smartphone ownership reached 70.96%, rural urban (45.42%), and rural (42.06%. While computers tended to be less used, urban (31.55%), rural urban (23.42%). ), and rural (23.83%). When viewed from the composition of the distribution of internet users, Java Island still dominates with a percentage of 58.08%, Sumatra (19.09%), Kalimantan (7.97%), Sulawesi (6, 73%), Bali-Nusa (5.63%), and Maluku-Papua (2.49 %%). Meanwhile, from the composition of users based on age, the age range 19-34 years became the main contributor with a percentage of 49.52%, 35 -54 years (29.55%), 13-18 years (16.68%), and more than 54 years (4.24%) .In terms of gender, men (51.43%) dominate women (48.57%).

Previous research conducted by Krithika & Vasantha (2013) stated that cellphones have positive and negative impacts. The positive impacts include: 1). Make communication easier. Apart from individuals / personally, communication can be done in bulk through groups available in communication applications, such as WhatsApp, line or telegram. This can reduce the risk of interrupting information, such as what often happened before smartphones, chain messages did not arrive due to various reasons, such as no credit, or some people not receiving messages because they were missed. 2). Entertainment media, smartphones have many entertainment features and this can be a medium to help students or teachers to take a break from their boredom. 3). Increasing knowledge, Smartphones are equipped with various applications including educational applications. In addition, with the help of a search engine such as Google, students can access various information and check the accuracy of the information they have collected.

The negative effects of cellphones as quoted from researchgate.com are: 1) It can cause addiction, Smartphones are the first thing they are looking for and this creates a new trend, nomophobia, which is the fear that arises because someone has to separate from their smartphone

as reported by psychologytoday .com. A study says 58% of men and 47% of women suffer from nomophobia and 9% of them feel depressed if their smartphone is turned off; 2) Lack of social interaction in real life, this causes less social interaction in people's lives. They are more engaged in interacting through social media which often results in disrupting relationships with friends, family and also disrupting academic achievement because they focus on playing with their smartphones; 3) Make less empathy with the surrounding environment. For people who are addicted to smartphones, they will tend to be more indifferent and less empathetic to what is happening to their surroundings because they are already preoccupied with their smartphones. For example, when there is a meeting with family or friends, not a few are even more fun to look down and play on their smartphone than to exchange news and stories with the people around them; 4) Risk of misuse of smartphones. It is so easy to access the internet via a smartphone if it is misused to access sites that should not be accessed by students.

Indonesia with cellular phone ownership reaches 84 percent of the total population, encouraging UNICEF to partner with the Ministry of Communication and Information and the Berkman Center for Internet and Society, Harvard University, to conduct an extensive survey of the digital behavior of young people. The conclusion that can be drawn is that the Indonesian people, viewed from various circles, mostly use cellphones / smartphones to exchange information, one of which is related to Covid-19 information.

### **Covid-19 Digital Information Literacy**

Respondents have very high abilities in using internet media and have accounts in various types of social media such as Facebook, Twitter, Instagram, WhatsApp, line, blog. The ability of respondents to get information about covid-19 in various file formats such as .pdf, jpeg, MP4 is high. Respondents are low for self-actualization writing information related to Covid 19 on social media accounts. Status writing activities, uploading photos or videos on social media, as well as socializing and discussing activities through social media are included in the normal category. Respondents have fear when the information submitted turns out to be hoax information. Plus there are sanctions when spreading hoax information, so that respondents must be careful in spreading information.

Previous research conducted by Chan, K., & Fang, W. (2007) stated that the internet plays an important role among young people in Hong Kong. The majority of respondents aged 15 to 24 spend one to three hours per day on the Internet. The main reason for using the Internet is to listen to music and have fun. The internet is the preferred medium of choice for information-based activities. Magazines remain concerned with entertainment and shopping activities while television remains concerned with current news and events. Most of the respondents found useful websites through search engines. Interpersonal sources of information provide a way to the Internet for information on sensitive matters.

A study conducted by the Ministry of Communication and Information entitled "Digital Citizenship Safety among Children and Adolescents in Indonesia" (Safety of Using Digital Media in Children and Adolescents in Indonesia) found the fact that Indonesians already have high self-confidence in using online media. According to the latest data, at least 30 million children and adolescents in Indonesia are internet users, and digital media is currently the main choice of communication channels they use. Furthermore, the majority of those surveyed had used online media for more than a year, and nearly half of them admitted learning about the internet from friends for the first time. The use of social and digital media is an integral part of the daily lives of Indonesian youth. The study found that 98 percent of children and adolescents surveyed knew about the internet and that 79.5 percent of them were internet users.

Furthermore, the study also found that children and adolescents have three main motivations for accessing the internet: to seek information, to connect with friends (old and new) and for entertainment. Information searches undertaken are often driven by schoolwork, while use of social media and entertainment content is driven by personal needs. Regarding the issue of privacy, in general this study found that there were many children and adolescents who provided

personal information such as household addresses, telephone numbers, or school addresses. Most of them, are aware of the importance of passwords for e-mail and social media. Parents may lag behind their children in controlling and using digital media, few of the parents supervise their children when accessing the internet, and few who become 'friends' of their children in social networks.

The main recommendations resulting from this study as input: 1) Since the Internet has become an inseparable part of the daily life of children and adolescents in Indonesia, efforts are needed to increase their awareness, knowledge and skills in relation to internet security. This can be achieved through socialization, literacy education and training. Understanding the use and safety of digital media is essential - especially - from the perspective of children and young people, before designing information programs on digital safety. This includes understanding how they interpret and use digital technology, online communication and risky or unsafe behavior. 2) Parents and teachers must supervise and assist their children in their digital activities, and be involved in them. One simple way, for example, parents can become 'friends' on children's social networking accounts, because this is where children and teenagers 'play' in cyberspace. Here, parents can join and communicate intensively with children to create a safe and positive environment for their children's growth and development in the cyber world. 3) The parties responsible for internet content security - ISPs and governments - need to improve content security or protection so that it can make cyberspace a safe and positive space for children and adolescents to live and grow. The study found that many children were unprotected from negative content on the internet, most of which reached them accidentally via pop-up messages or via misleading links. 4) Need special attention to provide information for children and adolescents about the risks of harm that may arise from direct encounters with someone who is just known from cyberspace. 5) Parents and teachers need to know and be involved in digital security programs for children and adolescents. 6) Messages about digital security must be balanced by emphasizing the benefits of the internet for education, research and trade. 7) Children and adolescents must continue to be motivated to view and make the internet a valuable source of information, and to take full advantage of digital technology to help education, increase knowledge, expand their opportunities and empower them to achieve a better quality of life. 8) It is necessary to develop effective ways to campaign for digital security online and offline through all forms of traditional and digital media channels, such as television, radio, websites, or social media that are often used by children and adolescents. 9) It takes exemplary young cadres in internet security, who can share this with their friends through digital media, through audio and video in mass media, as well as offline in schools and campuses.

Regarding the context of Covid 19, the Indonesian Ministry of Communication and Information (Kominfo) said that currently people in the country understand and are calm in facing the conditions of the Covid-19 pandemic. A series of processes have been undertaken by the community, namely starting from not knowing, after that they started not believing, then finally panic arose because the trust was not yet complete. The panic that occurs is not only within each individual, but also has an impact on panic in economic behavior, including panic shopping.

#### **Media Access**

To access information related to Covid, respondents used accurate information sources. Respondents are smart in choosing information from reliable information sources. Even though there is a lot of hoax information, most respondents do not directly use the information but they filter the information and analyze the validity of the information. Most of the respondents are members of the online community and are good at accessing information sources, one of which is the official government website for information related to covid 19 <a href="www.covid19.go.id">www.covid19.go.id</a>. Respondents do not specifically follow certain accounts that discuss covid. Respondents also did not install on their cellphones related to covid information 19. However, respondents were good at accessing valid information related to Covid. Online media is no longer a new medium that someone feels strange to touch. Online media has become a friend of respondents where it is very

user friendly in accessing and supported by the respondent's expertise in utilizing the media and how to access it.

This global pandemic situation is experienced by almost all countries in the world, including Indonesia. Indonesian people consume a lot of news and information related to the COVID-19 outbreak. However, in these conditions, the public is often confused about which news is valid and relies on data / facts with fake news or hoaxes that are irresponsible opinions. For some people who have adequate levels of knowledge and literacy, it may be easy to classify and sort valid and invalid news stories. The problem is that there are so many fake news productions circulating in the public sphere which are then widely and rawly consumed by many people.

To find out a list of official websites that contain information about Covid-19, here are some official websites from the government that have been compiled from various sources.

- National: <a href="https://www.covid19.go.id/">https://www.covid19.go.id/</a>
- Aceh: <a href="https://covid19.acehprov.go.id/">https://covid19.acehprov.go.id/</a>
- West Sumatera: https://corona.sumbarprov.go.id/
- Banten: <a href="https://infocorona.bantenprov.go.id/">https://infocorona.bantenprov.go.id/</a>
- DKI Jakarta: <a href="https://corona.jakarta.go.id/">https://corona.jakarta.go.id/</a>
- West Java: <a href="https://pikobar.jabarprov.go.id/">https://pikobar.jabarprov.go.id/</a>
- Central Java: <a href="https://corona.jatengprov.go.id/">https://corona.jatengprov.go.id/</a>
- DI Yogyakarta: <a href="https://corona.jogjaprov.go.id/">https://corona.jogjaprov.go.id/</a>
- East Java: <a href="http://infocovid19.jatimprov.go.id/">http://infocovid19.jatimprov.go.id/</a>
- West Kalimantan: https://dinkes.kalbarprov.go.id/covid-19/
- South Sulawesi: <a href="https://covid19.sulselprov.go.id/">https://covid19.sulselprov.go.id/</a>
- West Nusa Tenggara: <a href="https://corona.ntbprov.go.id/">https://corona.ntbprov.go.id/</a>

The site www.covid19.go.id contains messages about three important steps for the community to take, namely how to reduce the risk of transmission, find the correct information and what to do when sick. Statistical data regarding the number of positive cases of Covid-19 is updated in real-time and is expected to become a reference for various parties. There is also a Hoaks Buster which can be used as a reference to determine whether information about Covid-19 is true news or a hoax. Educational materials contain various public education materials. The government is committed to providing accurate and responsible information to the public. Correct knowledge and behavior are important elements to fight the spread of Covid-19. society to intelligently use digital instruments, social media tools to sort information before it is passed on.

At least 1,401 Covid-19 hoaxes and disinformation content circulated on various social media (the AIS Team of the Directorate General of Aptika + Kominfo). Cyberbullying increases due to increased stress. The intensity of playing gadgets is out of control. A non-profit organization in America, the National Center for Missing and Exploited Children, reported that crimes and sexual exploitation of children on the internet reached 4.2 million cases. Violence in the household also jumped. Around 319 cases have been reported during the pandemic (Komnas Perempuan, 2020)

The events above should not have happened, or at least not be that bad, if we have a good literacy culture, especially Covid-19 literacy. Namely the ability to know what Covid-19 really is, understand how we should react to it, reflect on the wisdom behind this pandemic, and practice a smarter, more critical, empathetic and humanist life during the pandemic. After understanding clear information about Covid-19, it will certainly make it easier for the public to know how best to react to it. A literate society will have the ability and creativity to take advantage of the situation (Muzakkar, 2020)

## **Ethical Awareness**

Respondents are very understanding about the ethics of distributing Covid information via the internet. When disseminating information through digital media, respondents were very selective. Respondents are also very careful in disseminating information and guarding against violating copyright.

Research conducted by Khan, A. (2015) and Weller, K., & Kinder-Kurlanda, K. (2014) concluded that there are many benefits of social networking sites, there are increasing challenges from ethical issues. There are some issues to consider in a lawsuit, while others are purely ethical issues. These ethics must be properly defined and disseminated to all users of social networks. It takes great effort to spread awareness of this ethic. Further research conducted by Weller, K., & Kinder-Kurlanda, K. (2014) resulted in findings that several ethical problems reappeared on various platforms and solutions have been found, for example knowing user intentions when posting information on social media.

Ethics and morals must be applied in the use of information and communication technology. Even though it is a digital world, information and communication technology is only a medium controlled by humans. One example of the application of ethics in information and communication technology is netiquette or communication ethics and courtesy over the Internet. Although most communication via the Internet occurs through writing and symbols, Internet users must maintain their speech and apply good ethics. If someone has good ethics, then that person also has good morals. Vice versa. In terms of using software, ethics and morals are closely related to the rights of a person, namely the maker of the software. Software makers have worked hard to work so that their work should be respected and protected by law. Indonesia as a rule of law has laws regulating intellectual property rights.

According to data from Kominfo (2020) in April 2020, there were 1,125 hoax stories related to COVID-19 that were widely circulated through the platforms Facebook, Twitter, Instagram, WhatsApp, Youtube and various other online media. There are 77 suspects currently undergoing legal proceedings and 12 of them have been detained. This data shows that the amplification of hoax news production continues to occur in the public space. If we look at the motives for hoax news being made, of course there are those that are intentionally produced and accidentally produced because of lack of knowledge

In addition, there is also a lot of invalid information related to the prevention of the COVID-19 virus. Like the use of disinfectant fluids, this liquid should be used to kill bacteria / viruses on inanimate objects. However, due to the incomplete consumption of information, there is a lot of information that recommends the use of disinfectants in the human body. The result is, it is no longer an open secret that every community activity has to spray the liquid on the body. There are disinfectant booths that must be passed by people in each building, even at each housing gate. Whereas according to WHO, spraying disinfectant liquid on the human body is very dangerous, especially to touch human mucous membranes. WHO says that disinfectants only kill viruses on the surface of inanimate objects, not on human skin. the function of disinfection is certainly different from antiseptic. However, these activities have become the "right" thing according to the views of the Indonesian people in general.

Then a lot of information is spread in social media groups such as WhatasApp which contains drugs to prevent and even treat the COVID-19 virus. Although the intention is good to provide health information, it will be very dangerous if the contents of the information cannot be justified. The most talked about include; Corona will die in hot weather in Indonesia, eating a lot of garlic can avoid corona, to wear antiviral necklaces that are widely trusted. Limited knowledge also adds to the problem of hoax news and disinformation, because if people have good literacy knowledge, of course, the information review process or news verification will be carried out before acting. The steps to ward off fake news include 1) identify fake news. Look for signs that can help determine if the information is fake. For example, messages are forwarded without source or without evidence. Photos, videos, and even sound recordings can be fabricated to be misleading; 2) Stop and think again before sharing the forwarded message. Messages labeled "Forwarded" help determine whether the message was written by a friend or relative, or whether the message actually came from someone else. When a message is forwarded from one user to another more than five times, it will be marked with a 'double arrow' icon to indicate that the message is 'Highly

Forwarded', and may have the potential to contain hoaxes or misinformation; 3) Help stop the spread. If you notice that information does not look correct or you make an unofficial medical claim, ask the sender if they can verify the information. Don't forward the message just because someone else asked you to, even if that person is a friend; 4) verification with other sources. Look up the facts online and check a trustworthy site like the WHO, the Ministry of Health, or a trusted news site to find out where the story came from; 5) Report messages or accounts that prove to be sharing inaccurate information. WhatsApp encourages users to report problem content, contacts, groups by reporting all information in the application by clicking on 'Settings / After> Help> Contact Us (Tirto id, 2020).

Respondents interviewed related to the selection of information carried out said that they trusted the content of Covid-19 information that came directly from real health workers who handled it in the field rather than sourced from officials at health institutions such as the Minister of Health or other officials. This information can be found on various social media.

## **Media Evaluation**

This study illustrates that respondents are an analytic type, which means that respondents are very selective in choosing, using, and disseminating information related to Covid. When they need information related to Covid, respondents seek information from reliable sources of information. It does not stop there, respondents compare the information obtained with other information. After the information that is considered valid is consumed, they do not immediately disseminate the information. But they sort out what kind of information is worth sharing. Do not let the information being disseminated actually increase public unrest. Thus it can be said that the Indonesian people are actually wise in utilizing information.

Probing from one of the respondents stated that he stored information related to Covid-19 such as information shared on various social media, for example information on how to make hand sanitizers, how to wash hands properly or masks that are standard for health.

Digital media users in Indonesia are still trapped as consumers of content and information circulating in cyberspace. Nonetheless, the ability to use digital media critically has begun to appear to be forming at various levels of society. This finding is the result of a national research conducted by the Digital Literacy Activists Network (Japelidi) during 2019. The research, which was conducted in 18 cities and involved a total of 2,280 respondents, aims to map the digital literacy competencies of Internet users in Indonesia.

Japelidi National Research Coordinator, Ni Made Ras Amanda, said this research is an effort to map the extent of Indonesian people's competence in digital media. This mapping, according to him, is important because currently Internet penetration in Indonesia is increasing and digital devices are no longer something foreign to society. The ability to use digital devices should be followed by good information management skills. This research aims to map which skills the digital media user community has mastered and which competencies need to be further improved

In this research, the Japelidi team divided 10 digital literacy competencies into four categories, namely skills to consume information functionally, skills to consume critically, functional processing skills (production) and critical processing skills. Based on the data obtained, the highest score is in consuming functional skills. This means that most of the new society uses digital media only to find information. Meanwhile, the lowest score was on production skills which involved critical thinking skills. Research findings show that there are some people who are able to think critically both when consuming information and producing information. What is interesting is that even though critical skills tend to exist in respondents with a higher level of education, there are some respondents with a lower level of education who also have good critical competence.

Meanwhile, based on the age level users over 55 years of age have a lower literacy level than younger ages and users aged 21-36 have the highest literacy competence. In terms of occupation, retirees and housewives have lower literacy levels. Another finding worth noting is

that there is no difference in digital literacy levels between male and female respondents. This research shows that ultimately all levels of society have a responsibility to improve digital literacy competencies. He also hopes that people will be better able to use social media to channel creativity, participation and collaboration so that they do not only act as consumers but also message producers.

## **Media Production**

Given that information related to Covid is a sensitive issue, respondents are very careful in distributing it. Respondents rarely share information related to Covid and provide comments. They often consume for themselves. Not to be shared on digital media.

Given that information related to Covid is a sensitive issue, respondents are very careful in distributing it. Respondents rarely share information related to Covid and provide comments. They often consume for themselves. Not to be shared on digital media.

As with the case of the corona virus which began to spread in China at the end of 2019. Many parties do not want to be left behind in sharing information regarding the corona virus that causes Covid-19 through social media channels. The speed of information and public discussion on social media is evidenced by the word "corona virus" or "Covid-19" which often occupies the popular word on social media. As stated by observer of digital culture and communication, Firman Kurniawan, who was published on Kompas.com, Tuesday (11/3/2020), the balance of information in this digital era is easily shaken. The magnitude of information and coverage through social media is so intense and even considered horrendous by the public that raises concerns. The public also began to find out information in order to avoid the threat of this virus. In the midst of this concern, the Indonesian government has emerged by seeing the corona virus as something not to be afraid of. So that the public is confused and does not have a handle on information that can be used as a benchmark. People share information with each other. Information becomes more and more distributed. In fact, it causes uncertainty. Infodemic Public anxiety and panic are referred to as imbalance of public information. The public needs to obtain valid and updated information. not as much information as needed, but quality information that comes from reliable sources.

The same is the case in China, the Chinese government tracks people on social media platforms, such as Twitter and WeChat, who share negative information about the COVID-19 corona virus outbreak. As reported by The Verge, Tuesday (25/2), the regulation of protests and dissent is nothing new in China. Yet people who have shared information about COVID-19 originating in Wuhan describe weak social media interactions without supervision.

Previous research conducted by Ahmad, M., & Jan, M. A. (2018) stated that consistent technological progress has brought easier access to information. However, not all information is created equal. In an academic environment, critical evaluation of information is essential for conducting quality research. Each source of information needs to be evaluated for its credibility to support research. In most cases, some information seems more reliable than others. Often, however, the real challenge is how to assess the credibility of the information. This situation demands consistent revision of the methods used by researchers and organizations to produce information-related products and services, and to respond effectively to complexity and volume.

Furthermore, the results of research by Li & Suh, (2015) explained that information on social media platforms is very bad because of the lack of professional gatekeepers to monitor content. How to evaluate the credibility of information on social media platforms has become an important issue for information consumers today. There is still little research that empirically examines what factors influence the credibility of information on social media platforms, which limits our understanding of the determinants of online information valuation. To fill this gap, this study examines the factors that influence the credibility of information perceived by individuals on social media platforms. Based on the theory of persuasion - Elaboration Likelihood Model (ELM), we identified that five factors from two credibility dimensions (media and message credibility) are key ingredients in online information assessments, and developed a research model that predicts the information that individuals perceive on social media platforms. The results

showed that interactivity, media dependence on the credibility dimension of the media and the strength of the argument from the message credibility dimension were the main determinants of information credibility.

# **Digital Literacy for Covid-19 Information**

Table 1. Digital Literacy

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Aspectt	Average	Category	
Media Awarness	3,3	Ordinary	
Media Access	3,41	High	
Ethical Awareness	4,41	Very High	
Media Evaluation	3,82	High	
Media Production	3,51	High	
Rata-Rata Total	3,69	High	

Based on the table above, it can be seen that the dimension of ethical awareness is very high. This means that respondents really understand the ethics of using digital information and sources of information. The second position is the media evaluation dimension. This means that respondents are not careless in using information, but they first analyze whether the information is valid or not. The third position is media production. This means that respondents are very careful in disseminating information so that it is almost said that they rarely disseminate information. The fourth position is media access. In accessing information, respondents chose accurate information sources. The fifth position is media awareness, which means that respondents are familiar with digital media. Overall, this study illustrates that the digital literacy level of the Indonesian people is high, namely 3.69.

Digital Literacy The pillar of the Indonesian Information Society is one of the Ministry of Communication and Information's programs to build a literacy culture. Digital literacy will create a society with a creative-critical mindset and outlook. They will not be easily consumed by provocative issues, becoming victims of hoax information or digital-based fraud. Thus, the social and cultural life of the community will tend to be safe and conducive. Building a digital literacy culture needs to involve the active role of the community together. The success of building digital literacy is an indicator of achievement in the fields of education and culture. One of the real successes of digital literacy is realized by the growing awareness of the public to use the internet smartly and positively.

#### Conclusion

From the research results that have been previously described, it can be concluded that due to the COVID19 pandemic, all activities are carried out online from school to work. In terms of looking for health information too on the internet instead of looking for the printed version. Health information is sought after on social media, whereas on the other hand, there are a lot of hoax news spread on social media, especially Facebook. In order not to be fooled by hoax news, digital literacy skills are needed. The results of this study indicate that digital literacy among the people of East Java Province is good. Of the five dimensions of digital literacy used as a measuring tool, the highest value is the dimension of ethical awareness which is very high, the second position is the dimension of media evaluation, the third position is media production, the fourth position is media access, and the fifth position is media awareness. The ethical awareness dimension shows that people are not original in sharing information. They do screening first, to determine whether the information is accurate or not. Every user must pay attention to ethics in using internet technology, because if it is not considered, it can cause big losses and problems.

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