

DIGITAL MEDIA LITERACY DURING COVID-19 PANDEMIC ERA AMONG MILLENNIALS

Nailul Mona¹, Josefina Kawilarang²

^{1,2}Vocational Educational Program, University of Indonesia (nailulmona@ui.ac.id)

ABSTRACT. In information and digital era, people were convenient in gain information from various media, especially online media. But this also bring threat if they don't have the digital media literacy. This study attempt to explore digital media literacy among millennial during Covid-19 pandemic. Covid-19 pandemic indirectly force people to increase their level of digital media literacay by using technology as an impact of Work from Home policy. This study using data collected using existing statistic combined with online survey. Existing statistic used to view the trends related to the study, and online survey used to gain more personal information about digital media use. Sampling in online survey drawn using quota sampling, to compare any difference from each millennial categories. Using multiple data collection method and several dataset were researcher's attempt to explore this study from multiple perspective, or called triangulation. Results shows that Indonesia netizen were fairly digitally literate. They become more familiar with internet and digital services during Covid-19 pandemic. Internet penetration also distributed evenly in every region in Indonesia, as an effect of digital transformation and infrastructure development. But to be truly digitally literate and have media literacy, Indonesia netizen need to have both hard skills (ability to access internet and understanding technology) and soft skill (creativity, persuasion, emotional intelligence, collaboration, and adaptability).

KEYWORDS: media literacy; digital literacy; digital media literacy; Covid-19; millennial

1 INTRODUCTION

Digital media literacy considered as a must-have ability for people live in digital era. Everyday life nowadays cannot be separated from media dan digital technological use, and human beings nature are always adapt and adopt new things come to their life. This human ability to adapt were widely known since prehistoric era, which is known as agricultural society.

People live in agricultural society were heavily depend on nature, most of them were work on farms or in resource extraction, such as mining, fishing, and logging. They were using convenient technology to help them in workplace. Literacy, such as writing and reading ability, were common only among priest and the upper classes. Only the wealthy Christian can afford religious books that fully written and illustrated by hand. In another culture, as well as, Korea, China, and Islamic, mainly the royal family were able to learn reading and writing using ink, brush, and cloth/paper/parchment roll. In this era, many people remain illiterate, thus memorizing long oral messages were considered important communication skills (Straubhaar, LaRose, & Davenport, 2012).

Subsequent to agricultural society is industrial society. People live in this era mostly work in industrial or manufacturing workplace such as factory. A significant occurrence that mark out this era was invention of movable type or later known as printing technology, by Johannes Gutenberg in 1455. Gutenberg's movable type enable people to duplicate books easily in more effective and efficient way, since the movable metal type facilitated faster composition of metal typefaces, replaced handwriting method for book production (Dahlan, 2012). Printed media – book, newspaper, brochure, etc – became popular and illiteracy rate decrease significantly. The characteristic of media in this era were mass, large scale and standardized (Straubhaar, LaRose, & Davenport, 2012).

In 19th century, the trend was changing. People not heavily rely on agricultural and industrial work, since mode of employment is information creation and processing, and this called information era (Straubhaar, LaRose, & Davenport, 2012). Literacy increased around the world and media consumption cannot be separated from everyday life. People were familiar with many kind of media: television, newspaper, telegraph, radio, film, videocassette, and later on internet. Message and information can be transmitted using media globally and getting faster everytime. Consumer had an option for their media preference and information or product they really needed, resulted that media became more segmented or called media niche (Dimmick, 2003).

Media or medium, originated from Latin “*medius*” means middle/mean can be defined as an agent, courier for message in communication process, between communicator and communicant. Media mostly used in mass communication, which involving many people. Mass communication, using media, can provide message or information into many communicant/audience simultaneously, widely influence them in quick time, and also possible to gather their feedback/responses (McQuail, 2010).

Among the first media in history marked by *Acta Diurna* in Roman, a bulletin or announcement written on board which was used by the King or Caesar to inform public about their Kingdom’s policy (A.S., 2014). After invention of printing machine and other invention on industrial era, new forms of media were discovered: from printed media (printed book, newspaper, magazine, almanacs, etc), electronic media (radio, film, television, etc), into media which distributed via internet.

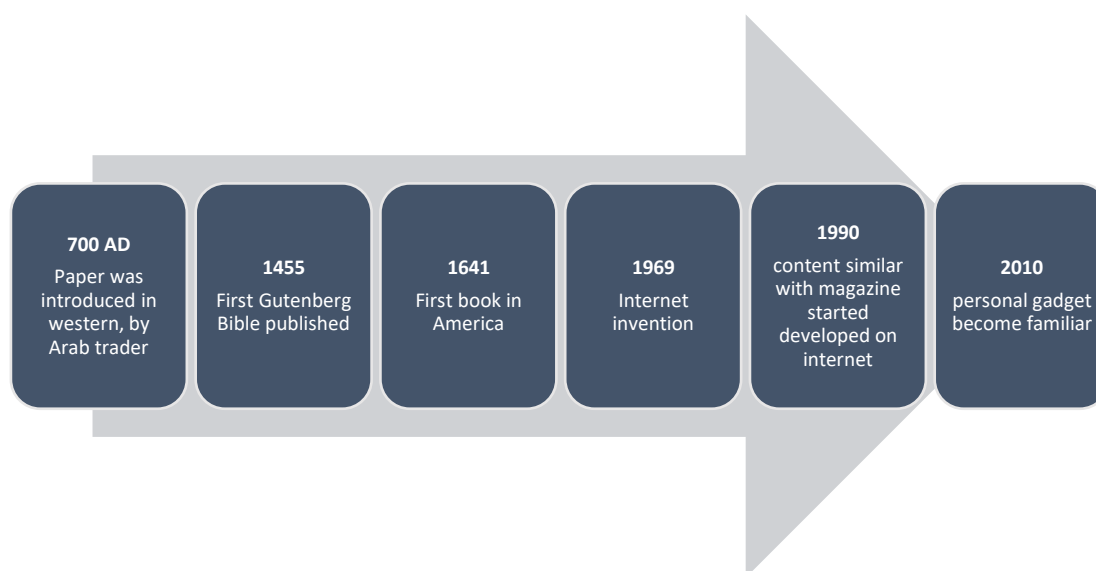


Figure 1. Brief Example of Media Development

2 THEORETICAL PERSPECTIVE

This part will discuss theoretical perspective and concept related to this study.

2.1 Media Literacy

Media literacy, according to Potter (2019) is set of perspective that we actively use to expose ourselves to the media to interpret the meaning of the message we encounter. It is multidimensional and continuum. The U.S. The National Association for Media Literacy Education (NAMLE) defines media literacy as ability to access, analyze, evaluate, create, and act using all forms of communication (Susilo, Afifi, & Yustitia, 2020).

Media literacy become important in this information era, where people are flooded with uncounted information from various media, either online or offline. In one hand, it can be an advantageous that ease people to get information. But this condition also bring vulnerability of misinformation, malinformation, hoax, and destruct critical thinking ability (Tim Program Kurikulum Literasi Media Mafindo, 2022). Literacy as an ability of reading and writing, should be accompanied by ability to process information actively and critically. People might think they are fairly media literate. They can read, write, know what's viral in social media, remember lyrics of famous song, and so on. But as argued by Potter (2019), people always can be more media literate. Level of media literacy surely can increase by understanding how media operate, how media affect the audience, and how think critically toward media content, thus we can have control over the media effects.

2.2 Digital Literacy

Digital Literacy simply defined as ability to operate digital device and able to use it responsibly (Amihardja, Kurnia, & Monggilo, 2022). According to Livingstone model, digital literacy is the ability to access, analyze, evaluate, and create messages in various contexts. 1) First step, access, are dynamic and social process, not only one-time action. After initial access, digital user can develop and change access condition, such as updating, enhancing, and expanding hardware and software application. For example, smartphone user might be use same brand and same device type, but after accessing their smartphone they can choose any application they need, or add some external storage, or subscribe for cloud system, etc. 2) Analysis, means the ability to understand message that comes to take advantage of online opportunity. 3) Evaluation is a process to assess whether the digital devices/content is good or bad, credible or not, worth or not, etc. 4) Content Creation is opportunity for user to create something online or termed User Generated Content (UGC). User that able to create content online, considered as a digitally literate user. UGC phenomenon appear after digitalization and convergence, that make user possible to create and share their own content (Straubhaar, LaRose, & Davenport, 2012). In previous era where online habit not formed yet and mass media ruled, only media institution or big brand/company can create content and share it widely.

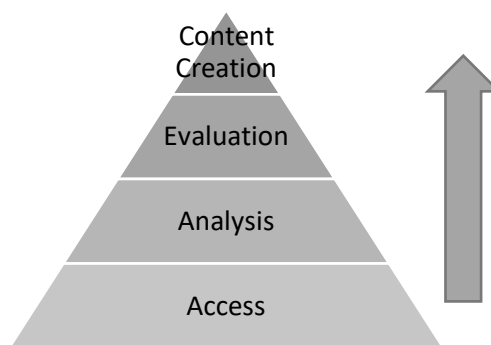


Figure 2. Four Level of Digital Literacy by Livingstone Model

3 COVID-19 PANDEMIC AND SHIFTING IN TECHNOLOGICAL USE

Covid-19 pandemic bring many changes during these few years. Discovered first in China, the Covid-19 virus spread all over the world and make people in risk of infection. In order to prevent virus spread, many government set some rules and policy, such as wearing mask, sanitizing hands and surface frequently, avoiding crowd, and also doing their work at home, or widely known as Work from Home (WFH). The WFH policy applied in many office/ institution, specifically since the government announce the first Covid case in Indonesia on March 2020. It forcing people to adapt and utilize technology to support their work. All of sudden, people have to be familiar with remote working, online tasks, and also online meeting. Workers should install Zoom, Google Docs, Trello; parents and students should be familiar with their new laptop or smartphone to access Google Classroom; etc.

In general, we can assume that today's literacy are increasing, characterized by high use of media and technology. Data by Hootsuite (We are Social) shows that active internet user in Indonesia in January 2022 reached 204.7 million of total population 277.7 million (We are Social & Hootsuite, 2022). Another survey by APJII in 2022 reported that internet penetration in Indonesia increased every year. In 2018, Indonesia's internet penetration rate was 64.80%. While in 2022, the rate increased into 77.02%. Further, APJII reported that there were behavioral changes about internet activities among Indonesia netizen during Covid-19 pandemic, became more frequent and longer in duration. They access internet for several reasons. The top 3 reasons are 1) to access social media, 2) to work or school from home, and 3) to gain information (APJII & SRA Consulting, 2022).

4 MILLENNIAL GENERATION

Millennial generation or called Gen Y or echo boomers refer to people who born between 1980-2000. For them, technology is symbol of life, such as computer, television, walkman, celluler, etc. Characteristics for millennial are narcissistic, individualistic, entrepreneur, freedom, technology, and adaptable (Gürçüoğlu & Çelik, 2016). Millennial population in the world is the highest compared to other generation (World Economic Forum, 2021), and they are in the middle of productive age.

During Covid-19 pandemic, millennial have to adapt with technology as they did throughout their life. As a productive age generation who spend their time in workplace, most millennial not be able to work in usual workplace during pandemic and shift into remote working. They must learn so can be familiar with online meeting and online system. As a parents, millennial also struggle with online education for their child. Even though millennial are used to adapt and adopt new technology, but sudden change in pandemic situation must be difficult for them. Thus this study choose to explore digital media literacy during Covid-19 pandemic among millennial.

5 METHOD AND SAMPLING

This study uses descriptive approach with the aim of describing digital media literacy of millennial during Covid-19 pandemic. Descriptive approach defined as a method that serves to describe or provide an overview of the object under study through data or samples that have been collected as they are, without analyzing and making generally accepted conclusions (Sugiyono, 2017). Data collected using existing statistic combined with online survey. Existing statistic used to view the trends related to the study, and online survey used to gain more personal information about digital media use. Using multiple data collection method and several dataset were researcher's attempt to explore this study from multiple perspective, or called triangulation (Neumann, 2011).

Respondents participated in this survey were selected by quota sampling. Cited from Neuman (2011), quota sampling is an acceptable nonprobability substitute method for producing a quasi-representative sample. The sampling procedure in quota sampling ensures that a certain characteristic of population sample will be represented to the exact extent that the researcher desires (Acharya, Prakash, Saxena, & Nigam, 2013), which allows researcher to compare the group easily (Sharma, 2017). In this study, sample drawn were categorized into three certain group: Gender, Age, and Geographic. For gender category, researcher choose sample that represent both male and female. While in age category, researcher involve the older millennial (born 1980-1990) and younger millennial (born 1991-2000). For the last category, geographic, we draw sample from 3 areas in Indonesia: Jabodetabek, Java, and outside Java. After determine the categories and quota assignment, online questionnaire were spread and considered sufficient if the quota was fulfilled. The quota sampling method were appropriate for a survey has to be completed within a very short time (Moser, 1952).

6 DIGITAL MEDIA LITERACY AMONG MILLENIALS DURING PANDEMIC

This study using existing statistic data combined with data collected from survey to describe digital media literacy among millennial during Covid-19 pandemic. Based on survey by We are Social and Kepios (2022), Indonesia total population on early 2022 was 277.7, with 50.3% male population and 49.7 female population. Male literacy percentage for adult (age 15+) was 97.4%, while woman literacy percentage is 94.6%. Literacy itself defined as ability to read and write. With relatively high percentage of literacy, internet penetration and contribution rate not as high as literacy rate.

Table 1: Internet Penetration and Contribution in Indonesia 2022

	Penetration	Contribution
Male	77.55%	39.21%
Female	76.48%	37.48%

Source: (APJII & SRA Consulting, 2022)

Table 2: Indonesian Netizen's Reason to Access Internet

Reason	Percentage
To access social media	98.02%
To access information/news	92.21%
To work or school from home	90.21%
To access public service	84.90%
To use electronic mail	80.74%
For online transaction	79.00%
To access entertainment (game/streaming)	77.25%
To access online transportation	76.47%
To access financial service	72.32%

Source: (APJII & SRA Consulting, 2022)

Respondents characteristic participated in this survey about digital media literacy were millennials, who born in 1980-2000 which divided into three categories based on gender, age, and geographic. Total 21 respondent participated until the quota was fulfilled. On gender category, data of millennial participated consist of 12 male and 9 female.

Table 3: Distribution by Gender

Gender	Amount	Percentage
Male	12	57
Female	9	43
Total	21	100

The second category, age, were divided into two group: older and younger millennial. According to Gürcüoğlu & Çelik (2016), millennial are people who born on 1980-2000. Since the range is quite wide, researcher divided it into two groups: 1) Whose born in 1980-1990 or termed older millennial, and 2) born in 1991-2000 or called younger millennial.

Table 4: Distribution by Age

Group	Amount	Percentage
Older Millennial	14	67
Younger Millennial	7	33
Total	21	100

Geographic become the last category, which consist of three areas: 1) Jabodetabek, or Jakarta, Bogor, Depok, Tangerang, and Bekasi, or known for capital city of Indonesia and its commuting area; 2) Java, which is the island where the capital city belong, and known for its density and inequality with another island in Indonesia (Antara, 2011); and 3) Outside Java.

Table 5: Distribution by Geographic

Group	Amount	Percentage
Jabodetabek	6	29
Java	11	52
Outside Java	4	19
Total	21	100

Based on media literacy and digital literacy definition, can be concluded that people with digital media literacy can operate digital device responsibly, using internet as they need, and also actively, critically interpret messages on its digital/online media. Respondents were asked about their digital media literacy opinion using Likert Scale.

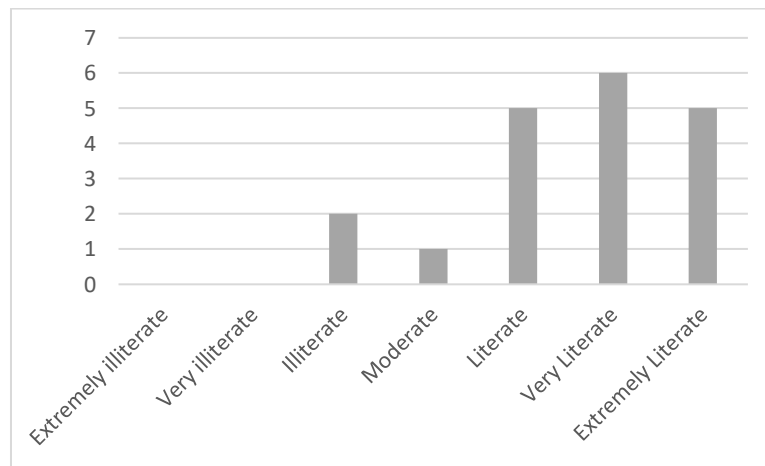


Figure 4. Self-assessment of Digital Media Literacy

From the self-assessment survey, can be seen that majority of respondents assess themselves as a digital media literate. Only three respondents think that they not really literate, all of them are male respondents. All respondents are actively access information/news via online media (website, news online, blog, etc) and traditional media (television, radio, and newspaper). But they have different rate of importance in accessing these media.

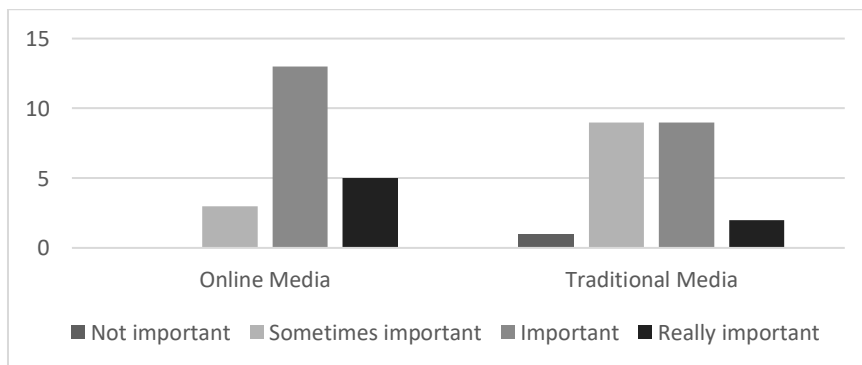


Figure 5. Importance Rate of Online Media vs Traditional Media

According to Livingstone model, there are four level of digital literacy: access, analysis, evaluate, and content creation (Susilo, Afifi, & Yustitia, 2020). One indicator of higher digital literacy was able to

create digital content that distributed via internet. All respondent know about content creator profession, except one respondent from older generation millennial. But not all of them ever create digital content.

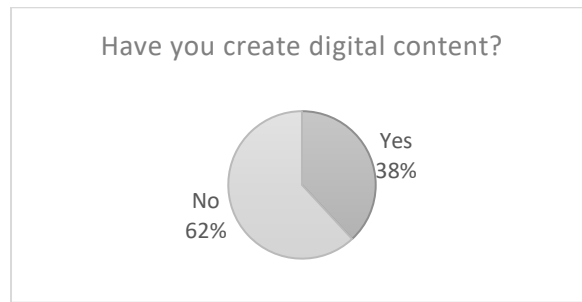


Figure 6. Experience of Content Creation

During Covid-19 pandemic, APJII reported that Indonesia netizen, both male and female, become more frequent in accessing internet. Most of them using internet for 1-5 hours per day.

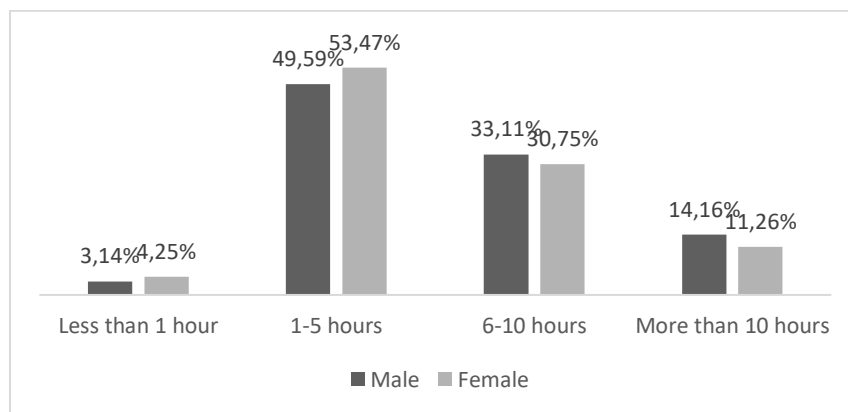


Figure 7. Duration of Internet Using per Day

Before pandemic, respondents digital habit was quite different with theirs after Covid-19 and WFH policy. They mention several applications or services that never been used before pandemic, and compare it with those never been used during pandemic

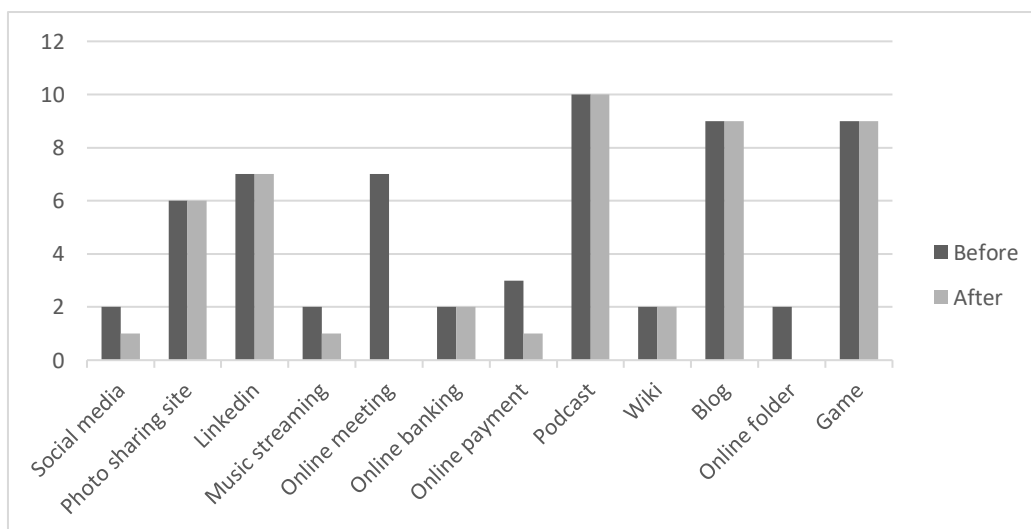


Figure 8. Online Services or Activities Never Been Used before vs after Pandemic

Based on the survey, can be seen that all of the respondents are fairly media digital literate. They access digital media, and some of them are ever experiencing content creation. They regularly learn about new technology from multiple source, with online material, youtube video tutorial for example, become most selected source.

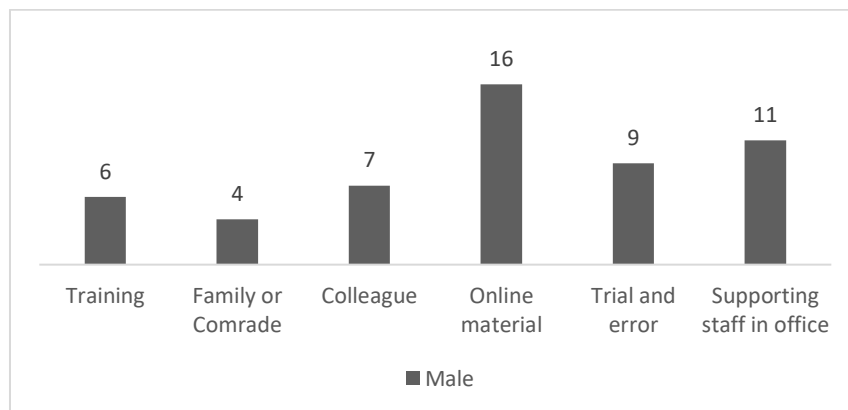


Figure 9. Source for Learning New Digital Technology

Since sample in this study were divided into three categories, researcher tried to compare media digital habit of each category. Generally, no big differences in first category – gender. Both male and female participated in the survey were fairly literate. But, the female respondents were more confident when asked to rate their level of digital media literacy. No female respondent rate themselves as illiterate, while three male rate themselves as not really literate.

For second category – age, there is slight differences between older and younger millennials. The younger millennials relatively courageous in trial and error while learning new digital technology. They also using more various digital media services, ranging from game into online payment; while older millennial using fewer variation of it.

In the last category – geographic, researcher did not found any specific differences between respondent from Jabodetabek, Java, and Outside Java. They were all fairly literate, understand the technology, and actively using digital media. It is congruent with data reported by APJII and SRA Consulting (2022), that internet penetration outside Java were raising significantly, overtake Java as highest internet penetration in previous year. APJII stated that due to Covid-19 pandemic, internet penetration in Indonesia increase significantly. In another region beside Java, it also caused by even distribution of digital infrastructure (Tempo.co, 2022). Lastly, respondent were asked about statement related to their digital experience, and majority of them expressed that they are used to digital technology in this digital era.

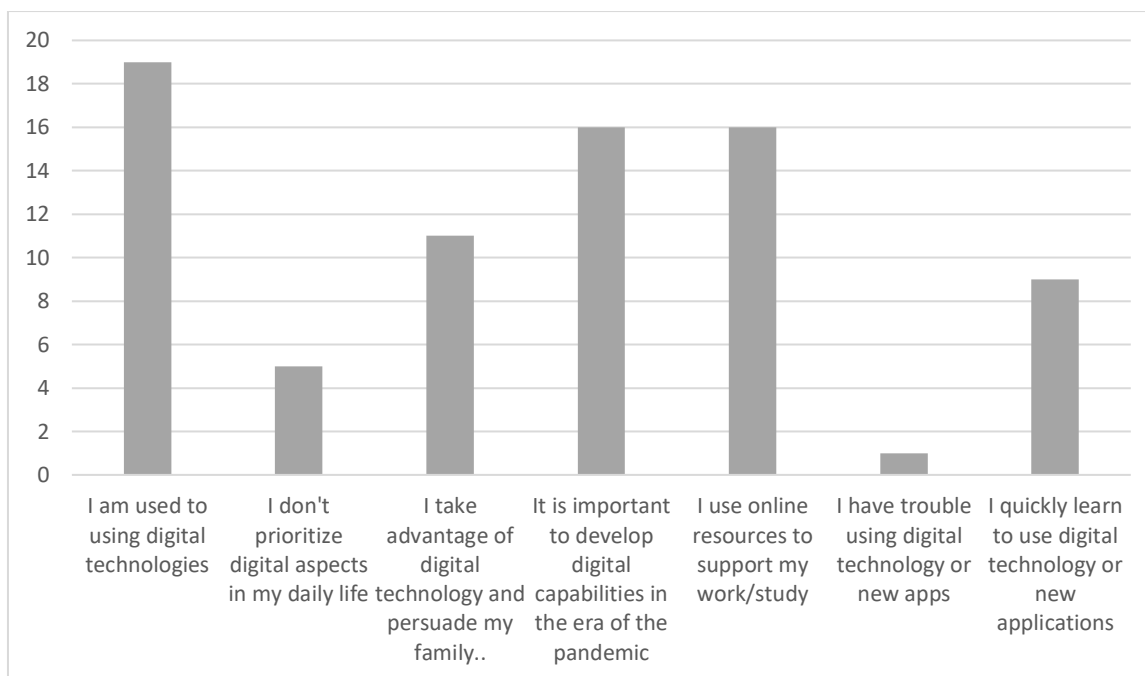


Figure 10. Statement of Digital Technology Experience

7 CONCLUSION

In this digital era where information can be obtained from media easily, the important thing is not only efface the illiterate, but also struggle to be more digitally literate. Digital literacy and media literacy might be different in terms and definition, but they have slice of similarities that crucial to applied in the midst of information exposure. To have digital media literacy, people should be able to use/operate technology and internet (access), competent to choose which media-information-services that they need and can be beneficial for them (analysis), able to think actively and critically about any information shared on mass media and internet (evaluation), and also skilled to create a content and share it online (content creation). Covid-19 pandemic indirectly encourage Indonesia people to increase their digital media literacy. But the increase of digital media literacy not only required hard skills and supporting facilities/infrastructure, but also soft skills, ie. creativity, persuasion, emotional intelligence, collaboration, and adaptability (RMIT online, 2020).

8 ACKNOWLEDGEMENT

This paper and the research behind it would not have been possible without support from Program Pendidikan Vokasi Universitas Indonesia.

9 REFERENCES

- Gürcüoğlu, E. A., & Çelik, S. (2016). Generations and Their Relations in Social Processes. *SSPS, 1*(1).
A.S., A. B. (2014). Periode Perkembangan Media Massa (Sebuah Tinjauan). *Jurnal Studi Komunikasi dan Media, 18*(1), 119-132.
Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: Why and How of it? *Indian Journal of Medical Specialities, 4*(2), 330-333.
Amihardja, S., Kurnia, N., & Monggilo, Z. M. (2022). *Lentera Literasi Digital Indonesia: Panduan Literasi Digital Kaum Muda Indonesia*. Malang: Tiga Serenada.
Antara. (2011). *Investor.ID*. Retrieved from *Perekonomian di Jawa dan Luar Jawa Timpang*: <https://investor.id/archive/perekonomian-di-jawa-dan-luar-jawa-timpang>
APJII & SRA Consulting. (2022). *Profil Internet Indonesia 2022*. Jakarta: APJII.

- Dahlan, M. (2012). The New Media and Islam: Communication Characteristic and Dynamics. *Journal Communication Spectrum*, 2(1), 1-12.
- Dimmick, J. W. (2003). *Media Competition and Coexistence, The Theory of the Niche*. New York: Routledge.
- McQuail, D. (2010). *McQuail's Mass Communication Theories*. London: SAGE.
- Moser, C. A. (1952). Quota Sampling. *Journal of the Royal Statistical Society. Series A (General)* , 411-423.
- Neumann, W. L. (2011). *Social Research Methods: Qualitative and Quantitative Approaches*. Pearson.
- Sharma, G. (2017). Pros and Cons of Different Sampling Techniques. *International Journal of Applied Research*, 749-752.
- Straubhaar, J., LaRose, R., & Davenport, L. (2012). *Media Now, Understanding Media, Culture, and Technology 7th Edition*. Boston MA: Wadsworth.
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, CV.
- Tim Program Kurikulum Literasi Media Mafindo. (2022). *Literasi Media: Kurikulum, Panduan Fasilitator, dan Panduan Materi Narasumber*. Jakarta: Mafindo.
- We are Social & Hootsuite. (2022). *Digital 2022: Indonesia*. We are Social, Hootsuite.
- We are Social & Kepios. (2022). *Digital 2022: Indonesia*. We Are Social.
- World Economic Forum. (2021). *There are 1.8 billion millennials on earth. Here's where they live*. Retrieved from World Economic Forum: <https://www.weforum.org/agenda/2021/11/millennials-world-regional-breakdown/>