Digital Threats and Challenges to Netizens Generation Media Education (Indonesian Case)

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Abstract

This article aims to explain how the threats and challenges to netizens generation are increasingly massive after the catastrophic COVID-19 pandemic in Indonesia. Social restrictions have forced people to work at home, and this exponential migration to the digital world gives birth to new threats and challenges for netizens. There needs to be an effort to measure the digital competencies that netizens must have in order not to become victims or actors of cyber threat disruption. Concerns about the future of netizens generation welfare because technological developments have become a digital deficit, namely people's cognitive abilities will be challenged in various ways including their capacity to think analytically, memory, focus, creativity, reflection, and mental resilience. We currently live in a culture promoting attention-deficit disorder due to hyperconnectivity. There needs to be a conscious effort to provide awareness to master digital literacy competencies in an effort to defend the country. Indonesian school for nine years does not guarantee a person has digital competence. Digital literacy should be included in the early childhood to the higher education curriculum. The spirit of having this competence is to become a citizen following the norms of Pancasila as an Indonesian foundational philosophical theory and ideology.

Keywords: digital threats and challenges, netizens, digital literacy, digital competence, Pancasila.

1. Introduction

It is complicated for us to imagine doing various activities today, starting from work, in a project, doing college assignments, or socializing with friends who are somehow not mediated through digital technology. It is not just us doing old things in new ways. Digital technology changes our behaviour, such as searching for information, tweeting, memeing, gamming, and so on, which then all become addictions. They can also create new harmful social practices such as trolling, hate linking, catfishing (online dating frauds), etc. We also often get digital technology that contains fake news and hate speech produced intentionally, by either actors or organizations or the state, in the form of disinformation.

Digital technology has become a major force that is internalized into people's lifestyles (Gálik, 2020; Gálik, Oprala, 2021; Khujamatov et al., 2020). However, like a double-edged sword, the existence of digital technology without meeting the digital literacy capabilities of the community can become a new threat not only to the democratic process but also to national unity. Former US President Barack Obama said in a speech at Stanford University how technology had

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changed the way people consume media and information. Obama said in the US and other countries, online disinformation undermines democracy. Threats like deepfakes powered by Artificial Intelligence (AI) are one of the worst (De Witte et al., 2022).

The era of digital society is something that cannot be avoided. Humans are forced to adapt to the use of technology (Herdiana, 2020). Concerns about the future of people's welfare due to technological developments are becoming a digital deficit. The digital deficit is that people's cognitive abilities will be challenged in various ways, including their capacity for analytical thinking, memory, focus, creativity, reflection, and mental resilience. Nikki's grave explains how we currently live in a culture promoting attention-deficit disorder due to hyperconnectivity.

For this reason, government efforts are needed to meet the digital literacy needs of its people. Instead of limiting the reach of society at the beginning of this technological revolution era, digital literacy needs to function more as a guiding framework to navigate Internet users in receiving and responding to a large amount of information available. The community must own the ability of digital literacy to become inline as a basic ability (basic value) using digital technology wisely. This capability is in line with the national committee, which is characterized by the attitude and character of defending the country from every level of society.

Never imagined before, the reality in the modern era has to face force majeure, a pandemic. Post-pandemic life is getting closer to becoming a reality, and various predictions of what the post-COVID-19 world will look like in Southeast Asia. However, many aspects of the future are still uncertain. Could there be another attack that would become a global pandemic? One thing is clear: this pandemic is accelerating the consumption of Internet users. It is as if a pandemic is forcing an exponential evolution of digitization.

According to a 2021 Bain, Google, and Temasek study based on *Kantar data*, the coronavirus has caused a significant surge in digital adoption, with more than one in three new consumers of digital services using the service, 90 %. In 2020, 40 million new Internet users were added during Pandemics in Singapore, Indonesia, Malaysia, Philippines, Thailand, and Vietnam, bringing the total number of users to 400 million. Currently, 70 % of the region is online (Davis, Neves, 2021).

The study also found that Southeast Asians spent an average of an hour more online a day during the COVID-19 blockade. The reason is easy to understand. The pandemic has forced all citizens, regardless of age, occupation, education, and place of residence, to quickly adapt to smartphones and the Internet. Social restrictions in all fields have made many social activities of the community switch from offline to online (Muqsith et al., 2021: 147).

The configuration of Internet usage in Indonesia is soaring and gigantic (massive). Previously, the use of the Internet was limited to offices, campuses, schools, and public places. Since the pandemic, there has been fragmentation into housing, residence, and settlements (Figure 1).

According to the Minister of Communications and Information Technology, Johnny G. Plate (Kominfo, 2020), "The COVID-19 pandemic has shifted the use of the Internet in urban areas". This data is reinforced by a new report by Google Indonesia at the end of 2021, which notes that there have been 27 million new Internet users in Indonesia since 2020 (Novianty, Utami, 2021).
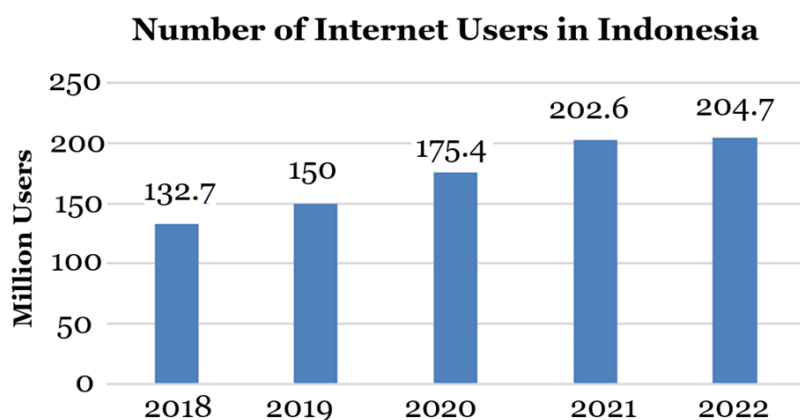

Fig. 1. Number of Internet Users in Indonesia from 2018-2022 (Katadata, 2022)

Furthermore, Kantar Data found that Southeast Asians, including Indonesia, spend an average of an extra hour a day online during the physical distancing of the COVID-19 pandemic.

The reason is easy to understand. The Internet sector provides access to essentials, healthcare, education, and entertainment to help keep businesses running. The *We Are Social* 2022 research describes in detail the reasons why Indonesians spend 8 hours 36 minutes using the Internet, in fact spending time watching television (broadcasting and streaming) for 2 hours 50 minutes, surfing social media for 3 hours 17 minutes, and reading newspapers (online or physical) for 1 hour 47 minutes, listening to music streaming for 1 hour 49 minutes, listening to radio broadcasting for 37 minutes, listening to podcasts for 55 minutes, and lastly, playing game consoles for 1 hour 19 minutes (Kemp, 2020). The activity of spending time using the media has experienced a significant increase in Indonesian society.

The *We Are Social* 2020 report stated the reasons why people access the Internet the most are to seek information (80.1 %), then seek ideas and inspiration (72.9 %), connect with friends and family (68.2 %), pass the time in leisure (63.4 %), following news developments and (51.8 %), finding out how things work (51.8 %), find out how to do something (50.5 %), find out about brands (45.6 %), Education and learning (44.1 %), play games (41.2 %), find out the place and travel location (40.3 %), find out Health and product issues (39.1 %), send opinion (39 %) (Kemp, 2020). From the data, it can be concluded that media consumption is seen to seek information, socialize, study, work, and entertain.

2. Materials and methods

The research based on a content analysis and comparative approaches to the main popular Indonesian media platforms and social networks. The methodology of the research consists of the key philosophical provisions on the connection, interdependence and integrity of the phenomena of reality, the unity of the historical and social in knowledge; scientific, sociocultural, cultural, hermeneutic, semiotic approaches, proposed in the works of leading scientists in the field of media literacy. The content analysis method helps to explain and explore the findings. (Berelson, 1952) defines content analysis as a search technique for the objective, systematic, and quantitative descriptions of the real contents of a communication (Holsti, 1969) defines content analysis as a technique for making conclusions by identifying the characteristics of certain messages objectively and systematically. Krippendorff defines content analysis as a research technique in making conclusions from context data (Krippendorff, 2004).

Based on the two definitions above, there are two functions of content analysis, namely: providing a systematic and testable description of the manifest and latent content of narrative discourse and producing valid conclusions about the narrative context based on descriptive content. The method used in this research is to study the object of research in the form of a literature review, whether in the form of scientific journals, books, and articles in mass media to answer research problems submitted by the authors, in this case, threats and challenges of digitalization post-COVID-19 pandemic in Indonesia.

This article aims to see the concerns of the exponential increase of Internet users especially among netizens generation actively involved in different online communities with the condition of the readiness of people's knowledge to use smartphones and the Internet intelligently. There needs to be digital competence that is continuously encouraged in order to reduce various negative impacts. The authors also include the survey results of the *Puska Bela Negara* (National Defence Study Centre) UPN Jakarta in 2021 to 1200 people in Indonesia related to the Pancasila ideology and its implementation in society, a secondary data that is being analysed as well through descriptive analysis.

3. Discussion

The acceleration of digitization over the past two years has created both a threat and a challenge. With all the digitization and technology taking over, society has evolved quickly. It has affected practically every aspect of human and his environment, including daily activities like working education and listening to music (Anderson, 2020; Art, 2018; Aufderheide, 2018; De Abreu, 2019; Dang et al., 2020; Cavanagh, 2020; Fedorov et al., 2019; Fedorov, Levitskaya, 2018; Livingstone, 2004; Gibson et al., 2018; Hartikainen et al., 2019; Jain et al., 2020; Kabha, 2019; Koltay, 2011; Macgilchrist et al., 2020; Mason, Krutka, Stoddard, 2018; Potter, 2018, 2019, etc). Development of such kind of skills and abilities to work in different media formats, educating new generation to life under new circumstances where new media products will be demanded is a vital question of now being (Fedorov, Levitskaya, 2015; Livingstone, 2018) as well as in in a post-

truth world (Bulger, Davison, 2018; Hobbs, 2017; Shen et al., 2019; Yom, Zietman, 2020). With the aid of digitization, communication, travel, and transportation systems are becoming more effective. It is challenging to find a machine in this era of digitalization that hasn't embraced digital technology in some form, no matter how big or little.

Digital technology has the advantages of being more compact, lightweight, and adaptable. Additionally, it implies that you can move between locations quickly and conveniently and store many data both locally and remotely. Information is not just information anymore; includes photos, video, and audio as well. Additionally, it makes it simpler to manipulate this data. Despite all of the advantages of digitalization, there are obstacles and dangers for netizens in Indonesian society.

1. Data security

Digital technology has made it possible for people to store large amounts of data. This data can be anything; it can be personal information about the person or organization data. It is very easy to store all this information. However, there is also the possibility of that information being compromised, with cyber threats increasing. The National Cyber and Crypto Agency (BSSN) recorded that there will be around 1.6 billion cyber-attacks throughout 2021 (Mantelean, 2022). This breach in data security causes huge losses and can also pose a threat to countries, companies, or individuals. Another thing that is also dangerous is that when data falls into the wrong hands and is misused by crime experts or terrorists, it can be a fatal blow to the country or organization.

2. Terrorism and Crime

Many people on the Internet can do anything with the Dark web. The dark web itself is part of the Internet and consists of hidden sites that cannot be found through conventional web browsers. To visit the dark web, you have to rely on browsers and search engines that are specifically designed to find these hidden sites (Andryanto, 2022). From the online sale of illegal drugs to extortion, the dark web is a haven for criminals and illegal activity. Terrorists use the Internet to create and promote groups, while criminals use the Internet to seek material gains such as extortion, political interests, etc. In addition, their identities can be hidden on the dark web, making it difficult to track down the individuals and organizations who might do so.

3. Privacy Concerns

Everyone now has a smartphone. Indonesia's percentage of smartphone ownership even reaches 133.3 % of the total population (Kemp, 2020). Netizens in Indonesia have two or more smartphones. It's very easy for anyone to take pictures and videos about anything and post them on social media. Therefore, people face the risk of their data being stolen or even sold. Therefore, controlling personal information is now difficult and sometimes impossible. This is a rising issue in the list of negative effects of digitization.

4. Social Disconnection or Anti-Social

Instead of spending time in the real world, now feel an increasing need to spend time virtually, especially during a pandemic (Shah et al., 2020). Social media has curbed people's expectations, and the ordinary has become unusual again. Comparison with one's life has boomed, and people are trying to adapt to a lifestyle that may not suit them. This has all led to social severance. It also causes many psychological disorders among netizens. Several studies have shown that the lack of socializing directly caused by the overload of social media use improves mental health in humans, such as depression and other forms.

5. Digital data manipulation

Data available online is now easy to edit and manipulate. One can edit photos, videos, and audio with smart editing tools. With this, people can easily spread fake news, and since most people are seen online and they seem to believe whatever the Internet gives them, news spreads like wildfire, which most of the time is not even true (Dang et al., 2020). Fake news is usually a chain message that usually ends with an order to spread, forward, or share and always asks netizens to make it viral. Fake news content often makes readers feel emotional, angry, hateful, or hurt (Wanger et al., 2002).

In the 2021 research, for example, we found that, on average, Indonesians received one fake news a week as much as 41 %, one fake news in one month as much as 29 %, one news in one day as much as 21 %, and more than one fake news in one month. Day by 9 % (Muqsith, Pratomo, 2021: 1391-1406).

6. Copyright and Plagiarism

It is very easy to copy other people's content or ideas by digitizing through the media. Another related problem is that copyright protection laws are increasingly difficult to enforce

(Rode et al., 2019). Because pupils can readily duplicate their assignments from the Internet without learning anything, this behaviour keeps spreading among students, and even teachers. People now feel a greater desire to spend time online than they do in the real world. Social media have significantly reduced people's expectations, and the commonplace has once again become remarkable.

Besides, the Internet and digital technology can be used in many bad ways; one of them is hiding identity. People use the dark web and many such facilities to hide their identity and use the Internet to trap others or post illegal content, stalking their ex-girlfriends to an annoying degree (Jain et al., 2020). People use this false identity to stalk, bully, or threaten others or their enemies.

Netizens, especially after the COVID-19 pandemic limitations were lifted, do not live their lives directly. Be it a concert or any other performance, very few people experience it first-hand by actually going there. Others only watch the shows recorded on their phones or videos, or with the latest features, netizens live to stream the event, and other people can watch it while sitting at home. Instead of spending time in the real world, people now feel an increasing need to spend time virtually (Yom, Zietman, 2020). Social media has curbed people's expectations, and the ordinary has become unusual again.

Netizens are the most gadget addicted, they use their gadgets for everything as well as education activity information . Whether it has to store educational knowledge, contacts, photos, or other personal information. Everything is stored on their phone or computer. Therefore, if they lose their phone or the computer breaks, they are in trouble. This proves excessive dependence on gadgets (Khaliq et al., 2021). Adults also find it easier to use GPS, even the most basic things, like finding their way on the streets, instead of interacting with locals and asking them questions. Laziness is also a challenge and threat to over-dependence on gadgets.

It is common knowledge that pornographic content is one more threat to netizens generation. Even though the government has blocked actions, pornographic content is still lurking on the Internet. Many applications support open, pornographic content. In addition to relying on the government, there must be education and an intention from oneself to stay away from things that smell like pornography so as not to damage yourself and others. The Ministry of Communication and Information (Kemenkominfo) received 244,738 complaints of pornographic content in 2019 (Andraningtyas, 2020).

The latest report on the *Digital Civility Index* (DCI), having measured Internet users' level of digital courtesy when communicating in cyberspace founded that exposure levels to 21 online risks differed in four categories: behavioural, sexual, reputational, and personal or disruptive (Oktari, 2021). As to increased excessive curiosity and hate comments, a report entitled Digital Civility Index (DCI) proved Indonesian netizens rank the lowest in Southeast Asia and the most disrespectful.

4. Results

If we look at the statistics, Indonesia will be the fourth largest Internet user globally in 2020, with more than 202 million users. It is only behind China with 904 million, India with 718 million and the United States with 324 million (Kemp, 2020). A country with 73.7 % of its citizens who surf digitally needs to pay attention to the level of ability to criticize media and data. The article on threats and challenges above shows significant vulnerabilities of Indonesian netizens in accessing, searching, filtering, and utilizing educational data and information received and distributed from and to various existing digital platforms. It is not enough for netizens as the most vulnerable part of the society who can physically be located in one country while connected most of the world to only be able operating information technology and technology (ICT) devices. They must be able to optimize their use for the greatest educational benefit of themselves.

A large number of active ICT users are associated with a low digital civilization index, hoaxes, fraud, digital intimidation, and others. It can easily breed in Indonesia without further intervention. The main issue here is digital literacy, where government policies can be resolved. Most Internet users with low digital literacy pose a significant risk from a security perspective. The netizens are vulnerable to false and fraudulent reports that can significantly affect Indonesia, especially because of their poor understanding of personal data protection, and can make malicious statements through fake news.

In educational process netizens must own digital literacy as a peripheral for adaptation. This ability is a bridge for Indonesian citizens to defend the country non-militarily. German term Bildung is used by scholars Søby (Søby, 2003) to denote the holistic development of the individual.

The Bildung process affects all aspect of a person's thinking and behaviour throughout their lifetime and shapes their understanding, interpretation, beliefs, attitudes, and actions. It symbolizes how people become both distinctive individuals and part of a society. It makes logical to emphasize literacy as a tool for meaningful participation in society. Communication with and interaction with those around us is becoming more and more crucial as our population expands and technology removes more and more barriers between us.

Digital literacy capabilities aim to improve the quality of the Indonesian people by making a positive contribution to their country. Scholars A. Martin, J. Grudziecki (Martin, Grudziecki, 2006) emphasize that digital skills are not enough with a standard education diploma but must be mapped to individual situations through self-development (Figure 2). They then classified digital skills into three competencies: digital competence, digital use, and digital transformation. This level reflects the need for everyone to have general digital skills and, beyond that, personal digital use for professional and other specific purposes. It also leads to innovation and enables creativity through the digital transformation of processes and activities at the individual and social levels. In line with that, as Indonesian netizens, attitudes and behaviour are required to follow the values of the Pancasila ideology.
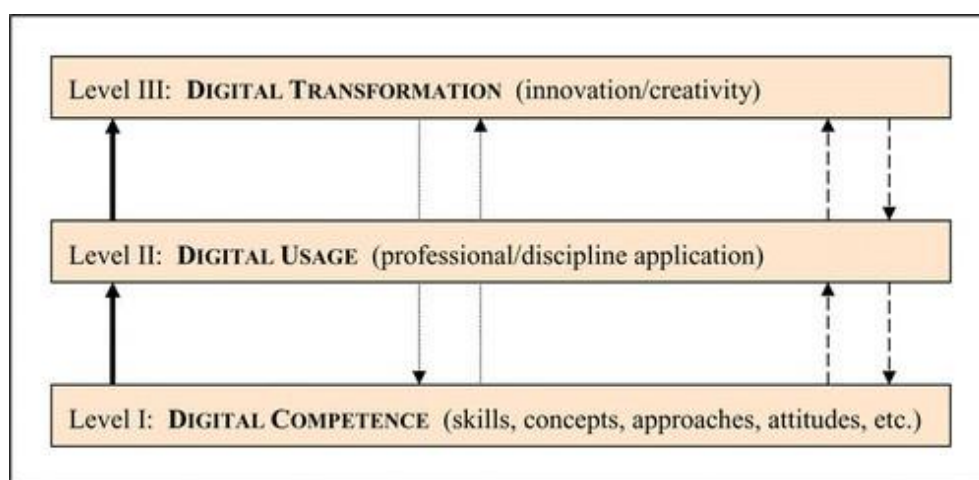

Fig. 2. Level of Digital Literacy Competence by A. Martin, J. Grudziecki (Martin, Grudziecki, 2006)

Pancasila is the official foundational philosophical theory of Indonesia. The name is made from two words originally derived from Sanskrit: "pañca" ("five") and "śīla" ("principles"). It is composed of five principles like Belief in One God, just and civilized humanity and unity of Indonesian community based on democracy guided by the inner wisdom in the unanimity arising out of deliberations among representatives, and social justice for all of the people of Indonesia (Dewantara et al., 2019). The survey results of the UPN Jakarta 2021 State Defence Study team show that almost 90 % of Indonesians consider Pancasila still worthy of being the state ideology. The level of implementation is still unsatisfactory in the community; in the survey, there are still around 15 % who think that implementation is not good and not good. Some of the reasons are the increasing spread of hoaxes, hate speech, and doxing on social media.

Pancasila norms must be internalized and externalized in every activity, including use of ICT tools for simply searching educational information, tweeting, memeing, gamming, etc. Become a digital transformation netizen to introduce their nation to art, technology, and culture through various innovations and creativity on social media. The efforts of netizens in realizing attitudes and behaviour will make the soul, obligations, and honour as citizens transformed into 'Efforts to Defend the State'. Defending the state is a manifesto of the awareness of Indonesia's entire nation and citizens through their soul, obligations, and honour to face all kinds of Threats, Disturbances, Obstacles, and Challenges.

State defence comes from the explanation of Law No. 3 of 2002 concerning National Defence and Law 23 of 2019 concerning the management of national resources for Defence. The explanation is a determination, attitude, and behaviour as well as the actions of citizens, both individually and collectively, in maintaining state sovereignty, territorial integrity, and the safety of the nation and state, which is imbued with love for the Unitary State of the Republic of Indonesia

based on Pancasila and the 1945 Constitution in ensuring the survival of the Indonesian people and country from various threats (Reza, 2017).

There are five values in defending the country, which is written first, having the initial ability to defend the country; second, awareness of the nation and state; third, willing to sacrifice for the Nation and State; fourth, believe in Pancasila as the state ideology, and fifth, love the homeland. When all of this becomes a single unit, the citizen becomes the Defender of the State. State defenders are people who have attitudes and behaviour in the life of the nation and state who animate their love for the Republic of Indonesia, which is based on the 1945 Constitution, becomes a basic obligation, has honour as a citizen who is fully aware of the responsibility and is willing to sacrifice to serve the nation and state.

Three digital competencies put forward by A. Martin and J. Grudziecki (Martin, Grudziecki, 2006) are also in the focus of our research:

First, it can be an indicator of how citizens have Digital Competence. Do you already have basic skills or key competencies such as skills to understand basic visual displays, concepts, approaches, and attitudes that are more critical, evaluative, and conceptual so that they have the attitude and awareness of using media? It is more suitable to use the phrase "key competency" as an analogue for what are commonly referred to as "survival" or "survival abilities", including fundamental literacy and numeracy. Competence is a term that describes a mix of abilities, talents, attitudes, and knowledge, as well as a willingness to learn. In Indonesia, it can be noted that this competency is used in accordance with Pancasila rules, depending on whether or not one holds that view.

Second, Digital usage has a central and crucial level in mediated communication. Digital use is fully embedded in the activities of a professional community, discipline, or domain. They join what Wenger refers to as a "community of practice," which is a group of people who have similar interests in a subject and who interact frequently to further their understanding of it. Digital use in this context refers to the intelligent application of digital competencies in real-world contexts. It entails utilizing digital tools to look for, gather, and process information before creating a thing or finding a solution to a task or issue. Just this outcome will spur additional activity in the context of life.

Third, Digital Transformation is achieved when users of mediation tools can develop into innovation and creativity and ultimately stimulate significant changes in the professional or knowledge domain to have a positive impact on society and the country.

Efforts to defend the country in this era of fast connections must be balanced with these three levels of competition. Although Indonesia already has a 9-year compulsory education program for its citizens, digital literacy skills are different and separate things. Formal education does not guarantee that people will be able to digital competence, digital usage, and digital transformation. A survey from the Ministry of Education and Culture (Kemdikbud) Indonesia in 2015, for example, said that many academics at the professor or doctoral level or academic circles still believe in hoax news (Wanger et al., 2002). Digital literacy education must be included in the curriculum from early childhood to higher education, including character-building training and state defence training to defend the country against future threats and challenges.

5. Conclusion

Internet user penetration in Indonesia has increased sharply after the COVID-19 pandemic, especially in residential areas. Since this catastrophic hit, the government's policy of implementing social restrictions has forced the public to face various new patterns of activity. As a result, work, study, and even shopping activities utilize digital technology from home. An increasing number of netizens is faced with more real threats and challenges as mediated communication through the media increases. Data security threats, terrorism, cybercrime, privacy concerns, fake news, anti-social, data manipulation, copyright, and plagiarism issues, are serious matters for homo sapiens retrogradation.

The key to survival is to provide education in literacy to the community using mediated communication to have comprehensive competence in new media technology. Starting from the interphase, its use can reach a critical, professional level and become a new innovator who can contribute to society and the country. This effort must be planted and fertilized as an awareness attempt to have digital literacy skills according to the norms and rules that apply in the community to reduce the destructive impact of technology.

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