Online Learning During the Pandemic in Indonesia: A Case Study on Digital Divide and Sociality Among Students

Sita Hidayah

Department of Anthropology, Universitas Gadjah Mada, Indonesia
Email: sita.fib@ugm.ac.id

ABSTRACT

This paper discusses the social world of online education in Indonesia. Drawing on a qualitative study held in July to September 2021, this paper describes how students used digital technologies for both education and social connection purposes during the COVID-19 restriction policy. In contrast to the widely assumed uniformity of online education and ubiquity of information technologies, this study identifies various digital divides ranging from unequal access to and control over digital devices and the internet to the varying degrees of students' technological skills and participation. Sociality is used as a conceptual framework to understand students' social interactions and networks. Data was collected from online interviews and partial participant observations with high school and university students from Jakarta, Denpasar (Bali), Magelang (Central Java), Pekanbaru (Riau), and Yogyakarta. The study concludes that the digital divide in online education exacerbates existing social inequalities. Simultaneously, online education enables the construction of new forms of stratification and relationships.

Keywords: *digital divide; online education; sociality*

INTRODUCTION

This paper describes the online education for Indonesian students' social world based on a study conducted on remote, fully online learning during the 2021 COVID-19 lockdowns. The focus of the study were digital natives– or people who live "digitally by default". The term *digital natives* refers to a generation that grew up in and surrounded by digital technologies (Vodanovic, et. al., 2010: 711) and those who were born between 1995-2010. It is important to note that almost all digital natives experienced a fully online education, at some point, between 2020 and 2021.

Over sixty-eight million students in Indonesia were absent from school as of the beginning of May 2020 (Indonesian Ministry of Education Survey 2020). The rise of online learning in which teaching was done online and on digital platforms has been studied all over the world

(Nadeak 2020; Baber 2022; Engzel, Frey &Verhagen 2021; Meinks, Fraillon & Strietholth (Eds.) 2022). These studies look at how school closure affected students in Indonesia, the Netherlands, India, and several other Asian and African countries. A notable study investigated the effectiveness of online learning and learning loss during school closures using surveys. Engzel, Frey, & Verhagen (2021) claimed that according to a survey of 300.000 students in the Netherlands, Dutch students made little or no progress while learning from home, and losses are even greater in countries with weaker infrastructure or longer school closures such as in Indonesia.

In contrast to the assumed uniformity of online education and the pervasiveness of information technologies, this study discovered digital divides in students' social worlds of online education. This study

attempted to understand students' perspectives of online education and relationships developed online through interviews and partial observations. The digital divide offers illustrations of how social and digital exclusion are linked (e.g., Helsper and Reisdorf, 2017; Van Deursen and van Dijk, 2015), whereas sociality provides snapshots of how relationships are formed and maintained online. The underlying assumption was that unequal access to information and digital technologies corresponds to the disparities in students' participation in online education and society (van Dijk 2017: 3). This study also investigated how much students' experiences of online learning result in meaningful social connections.

The index of digital literacy shows the digital divide in Indonesia. The Indonesian Digital Literacy Framework (*Kerangka Literasi Digital Indonesia*) issued by the Ministry of Education and Culture (2019) defines digital literacy as the ability to use communication and information technology to find, evaluate, use, create, and communicate information using cognitive and technical skills. According to the Global Digital Competitive Index 2020, Indonesia is classified as underdeveloped. In terms of digital literacy, Indonesia ranked 56th out of 63 countries (Wibowo 2021). The same index also confirms the findings of a survey conducted by The Ministry of Communication and Information Technology (2020) showing the score of the digital literacy index in Central Indonesian Regions is higher than in Eastern and Western regions of Indonesia (Setu 2020).

Because there is a trend towards viewing socio-economic inequalities as technological problems (Gunkel 2003: 517), the discussion of digital information technologies will extend the physical aspects and technological determinants. This paper considers information technology and interpersonal communication to be inseparable because new digital information technologies contain elements of both, (Schroeder 2018: 3). Observing processual access and control to daily information and communication reveals the boundaries of technological and social elements are perceptible by. Furthermore, the internet will have an impact on culture at the micro level and daily routines (Schroeder 2018: 8)—in this case, the everyday sociality of students.

This study examined technology in socially specific settings using a cultural paradigm. This paradigm centered the discussion not only on the issue of physical access to and control over digital devices and internet, but also on societal inequalities. Economic inequalities, in particular, have resulted in unequal access to information technologies and devices, unequal competence in digital technologies, and opportunities to participate meaningfully in the online social world. In this regard, the digital divide is viewed through the lens of social inclusion, which emphasizes how an individual, family, and society can fully participate and choose their life course (Warschauer 2003) while taking into account a variety of factors such as economy, education, health, housing, and the use of new technologies. Furthermore, this study assumed that unequal access to new technologies reflects the divide in students' participation in schooling and their participation in society in general (van Dijk 2017: 3).

The digital divide between the haves and have-nots is visible: from the ownership of appropriate digital devices and access to the internet to the unequal opportunities to develop digital literacies and skills. In this case, the digital divide represents the gap in meaningful participation in both online interactions and social networking. This emphasizes the term sociality, by situating students' perspectives on self, friendship, education, and society (Long & Moore 2013: 48) online and offline. The concept of sociality depicts not only the state and preconditions of human life, but also a starting point for understanding personalities, worldviews, and practices of groups of people as well as intersubjective capabilities to use symbols and to manage the knowledge, cognition, and emotions (Moore & Long 2012: 42). Sociality is relational matrices: "…which constitutes the life of persons, who in turn should be apprehended as 'simultaneously containing the potential for relationships and always embedded in a matrix of relationships with others" (Strathern et. al. 1990: 8–10). As a conceptual tool, sociality emphasizes the social change that occurs when humans face a major change such as the COVID-19 pandemic. The emphasis on sociality in the virtual world includes social networking and sharing sites such as Twitter, Instagram, TikTok, WhatsApp, YouTube, Discord, blogs,[1] et cetera, are used to demonstrate the *networked environment* in which students live. This section investigates the impact of *computerized algorithms*[2] and digital technologies on online networking and social processes.

According to data from the Digital Literacy Survey 2020 conducted by the Indonesian Ministry of Communication and Information shows that 73, 7 percent of internet users spend their time accessing social media and short messaging apps (Setu 2020). According to data from digitalliterasi.com, students spent more time accessing social network services and entertainment than they did on education (The Ministry of Communication and Information & APJII 2016). Students' internet use indicates the importance of online relationships and is one

of the reasons why this study focuses on the reproduction and transformations of students' online sociality, not just knowledge transfer and online learning.

Studies on students' online activities frequently focus on student's responses to online education as individuals, failing to consider various types of interactions and inerconnectedness between individuals (Chakraborty et. al., 2020; Padmo and Adriasih 2020; Barrot, et. al., 2021; Chandra 2021). Despite the fact that their online activities were mostly done individually, the overall process of meaning-making of the online activities extended beyond the boundaries of "social"/ "individual". Many activities, including online learning, were carried out alone, but with a large group of people at the same time— "solitary but social". The juxtaposition of "individual" and "social", as well as "online" and "offline" were highlighted in students' social processes and activities within the contexts of COVID health measures, such as large-scale social restrictions, that drive transformation of what is considered "social" in 2021.

This article describes students' online education and sociality in five cities: Jakarta, Pekanbaru, Magelang, Denpasar, and Yogyakarta. The study's initial question for the study was "how is COVID-19 affecting online learning in Indonesia? This study also attempted to understand how students overcame obstacles during COVID-19, particularly those related to the transition to digital online education. We decided to change our research problem to "the social life of online education" to accommodate volatile and grievous pandemic lockdowns. The following sections will discuss data collection method, research findings and analysis, and a brief discussion about the ramifications of online anthropological research.

METHODS

Even though surveys were feasible during the pandemic lockdowns (and provide quantifiable measures of data), this study chose an inductive inquiry that examines online learning behaviors within specific social contexts to uncover relationships and norms that have not been explicitly stated in quantitative studies.

Previously, the study focused on students' responses to their abrupt transition to online schooling in the city of Yogyakarta. Participants were high schoolers selected based on the city-wide "*zonasisasi*/school-zoning" areas. In July-September 2021, Yogyakarta was one of the cities having the highest number of COVID-19 cases and mortalities in Indonesia. The city was placed on lockdown during this time, and all face-to-face interactions were strictly prohibited. Almost all research in the humanities and social science research has been canceled. To adapt to these disheartening circumstances, it was decided to change the location and methods to ensure the safety of the researchers and participants.

Following the approval of the research proposal by the Faculty of Cultural Sciences Universitas Gadjah Mada, four (undergraduate students) research assistants were recruited in four locations, namely Denpasar, Jakarta, Magelang, and Pekanbaru. All research assistants were involved to make first contacts, build rapport, and collect data. For reason of health and safety reasons, the cities and participants were selected solely based on the locations of research assistants during the nationwide social restrictions. We changed the method from face-to-face interviews to online interviews with students living in these five different cities because fieldwork and in-person meetings were not permitted under the Indonesian government's COVID health policy of Community Social Restrictions.

Three high schools and six university students were chosen for the study based on their consent to participate. Most participants knew research assistants, and at the earlier stage, more than twenty participants were listed at one point, but only nine participants had regular remote connections and participated in a series of online interviews. In addition to online interviews, partial participant observations (following health protocols) were conducted when social restrictions in Java were lifted at the end of the research period. The partial participant observations were conducted by observing Universitas Gadjah Mada and two private high schools during in-person sessions (*pembelajaran tatap muka*) in Yogyakarta. One school was a vocational school, and the other was a religious high school where we had brief interactions with students. The in-person learning time was reduced, and students alternated between attending online and offline classes. The high schools have different pedagogical systems, but they had similar policies related to COVID-19. First-year students came to school only to submit their homework and obtained their school supplies and assignments. The third-year students attended in-person classes for half a day. The vocational students had practical training and skills, whereas the religious school students had intensive sessions and test trials. These schools discouraged face-to-face group meetings, while small discussions were permitted only for selected students. Interestingly, all students confirmed that they communicated through class-related WhatsApp groups, and they no longer have online classes. These schools,

however, were outliers. Most public (state) schools and universities in Indonesia offered hybrid classes, which meant students had both online and offline classes.

In other cities, all interviews were conducted over Google Meet and WhatsApp, with meetings arranged according to health measures (mask on, in the open, and or with social distancing). Participants wrote daily journals, in addition to online interviews, to describe their daily activities during the pandemic. Because participation observations were limited due to lockdowns, these journals were a valuable source of information. The following participants' location and educational background are listed below:

No.	Participants (Aliases)	City	Education
1.	Rama	Bali	University student
2.	Putri	Bali	High School class IX
3.	Umi	Magelang	College student
4.	Karen	Magelang	University student
5.	Rafi	Magelang	High school class IX
6.	Mita	Pekanbaru	University student
7.	Nasya	Pekanbaru	University student
8.	Dinda	Pekanbaru	University student
9.	Olla	Jakarta	High school class IX

Due to the pedagogical and systemic differences, comparative studies between high school and university students were not pursued. There were differences and similarities between online education in high schools and universities, but there was insufficient data to aggregate and evaluate the extent of the differences and similarities. Due to time constraints, this study was unable to fully describe the pedagogical systems.

DIGITAL DIVIDE AND STUDENTS' SOCIALITY: LITERATURE REVIEW

Because the virtual worlds are not geographical in their literal sense, this article situates the topic of the digital divide and online sociality among students, within the context of the "field" in non-classical fieldwork. Because it refers to various aspects of ethnographic methods, the term "fieldwork" was not used in this study. This study took on the question of what it means to do participant observation and interviews in the virtual field. And how

do we deal with what is real versus virtual, online versus offline? (Boellstorff 2012, p. 4). This study concentrated on "networked environments" rather than a "permanent research place". This study focused on students' interactions more on networked environments as opposed to websites and internet pages. Another issue that requires attention, especially with the ever-increasing ubiquitous computing, is the development of algorithms and metrics that influence social interactions and networks online. We adopted Boellstorff's approach of looking for parallels between offline and online life, rather than emphasizing what is "out of ordinary" about online life.

This study does not prioritize "spatial" over "connectivity", which means that this article focuses on sociality rather than virtual or cyberspaces. "Sociality" is preferred over the more established, if not static, concept of "culture". Traditionally, virtual communities and their culture have been used as an umbrella term for analyzing behavior and understanding the meanings of social interactions and networks. Considering this, online sociality is more dynamic and appropriate to today's networked environments of information technologies.

We examined both everyday online experiences and their broader social and cultural contexts using the conceptual frameworks of the digital divide and sociality. Students' experiences with online learning cannot be reduced to a simple examination of knowledge transfer mediated by information technology; social interactions and relationships, both online and offline, must also be considered. By doing so, we are striking a balance between the emphasis on the material aspects of technologies that mediate students' sociality and the larger structural contexts (Long 2001: 856).

Anthropological studies are more concerned with the groups rather than individuals. Because of this focus, digital ethnography has struggled to find "society" or "community" that have clearly defined space and time parameters. According to Leander and McKim (2003), *connective ethnography* is imperative for expanding research beyond offline/online boundaries because "participants make meaning of their experiences across online and offline spaces" (2003: 218). Furthermore, the emphasis of the study shifted away from individuals' geographical and primordial proximity to one another. In addition to the de-emphasizing of geographical and primordial sentiments, this study assumed that Social Networking Services influenced students' social identity and experiences (Madge, Meek, Wellens & Hooley 2009; Stirling 2014).

This study focuses on the digital divide and the sociality of students in several Indonesian cities; the

question of how digital information technology affects online learning is framed within the definition of "digital natives": The digital natives grow up in a networked world, with ubiquitous-pervasive computing technologies and Internet of Things (Palfrey et. al. 2009). According to Huffaker via Vodanovich, et. al. defines *digital natives* are as follows:

> "By age 20, digital natives will have spent 20,000 hours online using a whole host of systems from transaction to decision support systems to collaboration support for personal and professional purposes. They typically use these information systems to explore their places and identities in the world (Valkenburg and Peter 2008) … digital natives prefer the more synchronous forms of instant messaging. With mobile phones, digital immigrants favor speaking to people whereas digital natives prefer speed texting…Blogging is increasingly gaining currency for both digital immigrants and digital natives but once again for different reasons. Digital natives use blogging to share personal experiences and treat personal blogging websites as forms of online journals… digital natives are creators of online content (Huffaker 2004 via Vodanovich, Sundaram & Myers 2010: 712).

Huffaker's descriptions of digital natives helped in identifying participants' behaviors made possible by the late onset of world wide web 2.0, which is characterized by a democratized, smarter internet ecosystem capable of providing users with a more satisfying and tailored experience. Web-as-platforms with user-centered content enable students to communicate meanings and emotions online differently from the previous generations. The above descriptions, on the other hand, are broad generalizations of digital natives around the world. This study provides a qualitative description of students' social lives of online education during the peak of the COVID-19 pandemic in Indonesia, rather than a generalization.

THE DIVIDES IN ONLINE LEARNING

This is the first of three empirical sections that discusses study findings in 2021. Given the assumed homogeneity of the "digital natives", the uniformity of online education, and the ubiquity of information technologies, this study discovered that unequal access and opportunity to acquire digital literacy and skills among participants. The characters of the participants of this study were

similar, but it should be noted that there were digital divides that influence how students acted and perceived their daily lives.

There were significant differences between students who had access to the internet and digital devices and those who did not. In general, participants had access to the internet and devices, meaning that all research participants had access to internet networks and low-cost devices. At the very least, there was the issue of stable access to and ownership of learning-compatible digital devices. The disparities highlighted here were internet quality and speed, choices of appropriate technology and devices, and the ability to use digital devices to meet their social and educational needs.

The majority of remote online university learning was done through video conferencing platforms such as Zoom and WebEx. High school online learning was conducted via Google Meet and WhatsApp. Even though the selected platforms were compatible with most educational applications and programs and had end-to-end encryption security, most participants had problems with platforms that required a minimum bandwidth of 1,2 Mbps bidirectional such as WebEx.[3] Romeo stated that to run WebEx smoothly, he needed to go to university to access stable internet and to save money:

> "Even on campus, not all students' *usernames* are linked to the university's WIFI. Some students, including myself, were unable to [access the university internet]. I registered at the rectorate, but I am not sure why it has not yet been ACC-ed. So, even if I use the university's account, I cannot connect to WIFI. So, I borrow my friend's account if one is available. I can't access [WebEx] from home because I do not have any data credit. Sometimes I had to wait for my parents to tether from my mom's handphone..."

Participants suggested that Zoom and Google Meet required less internet speed and quality than WebEx, which required twice as many students' data credits. However, sometimes Google Meet was not always an option because even in Java's urban areas, some people lacked basic internet quality and speed. Putri, a student in Denpasar, shared similar experiences:

> "Once, it was Math class. During the math learning period, Google Meet was used to explain the subject. At that point, the network went completely blank…"

Several participants living in different cities shared stories like this one, given by Olla:

"So far, the [online] learning, we've shared PowerPoints, Word documents, and excel via Google meet and Google classroom, as well as Zoom…when we used Google Meet, everything went smoothly. When we used Zoom, it frequently jammed, and we were often kicked out. As a result, we prefer Google Meet."

According to two high school students, internet bandwidth both on the island of Bali and the capital city of Jakarta was insufficient. The problem with online learning was not only the poor quality of the internet but also incompatible devices and limited data storage capacities. Students preferred Google Meet over Zoom, and WebEx and their schools accommodated students' requests for less expensive educational platforms. Romeo also brought up these concerns:

"I hardly use [my] laptop for online lectures because it is inconvenient. So, HP is better. So, when I have online classes at home, all I must do is plug in my headset, listen to the lecture, and fall asleep, eeh… kidding {laugh}. But that's the way it is. We take online classes in bed, and only take notes when we feel like it. However, for presentations or when we need to share something, we use laptops because HP will be rendered incompatible. I use both [laptop and handphone) at times. Laptop for the viewing and sharing, HP for the audio, so indeed [it is] inconvenient"

These issues had a long-term impact on students who had limited capacities with digital devices. Putri mentioned again how her video assignments were filling up her "simple" handphone storage:

"[it can be] taxing at times, especially because my HP memory (storage capacity) is limited. So, it is difficult, because [I] do not know what to erase again to free up my memory…sometimes I must delete applications, but first I deleted unimportant files from my HP. But sometimes I needed to delete applications"

Putri had to borrow a friend's handphone or her sister's laptop to complete a school assignment. Because she could not freely use the borrowed devices, the quality of her assignments and her grades suffered.

According to the study, many students were unable to use interactive applications or platforms, due to a lack of available technologies and devices, as well as a lack of financial resources. The digital divides reflect economic divides. Low-income students had to pay more for their internet than students from middle- and upper-income families who could afford WIFI and internet routers.

All participants confirmed that they received government internet data packages of 35 Gigabytes for four months (The Minister of Education, Culture, Research, and Technology decision No. 17/2021). The Ministry data packages for elementary and high school students were 10 Gb in size, and all participants stated that this was insufficient for three video meetings or two weeks of school. University students needed to purchase three additional data packages to actively participate in online classes. Students who had WIFI purchased internet packages averaging 300.000 rupiahs,[4] but most students claimed that their parents did not have WIFI at home, so they purchased a more expensive cellular internet data plan.

The examples of the students' online education show the negative effects of the economic and internet infrastructures disparities. There were also recurring stories about lecturers and teachers who were unable to adapt to new methods of remote, online learning. At least two reports indicated that teachers required their students to submit handwritten summaries of the class in person, effectively defeating the COVID-19 measures designed to limit social interactions. Docents and teachers have occasionally delivered lectures and assignments exclusively through WhatsApp and directed their students to "*belajar mandiri*" (independent study).

Despite the fact students took the initiative to communicate with one another and conduct group studies, participants generally agreed that there were no meaningful interactions. Olla's daily online activities revealed that she was primarily involved in school and extracurricular activities, with few to no casual interactions with her classmates:

"pagi ini bangun jam 6.04 ngantuk banget. habis itu siap" dan skola mulai jam 6.35 tadi pagi sarapan dimsus terus lanjut ke pelajaran bi. tadi dikasih tugas buat puisi terus latian soal buat ulangan. hbs itu pelajaran pkwu presentasi dlm bentuk dialog gitu buat produk yg uda dibuat. hbs itu istirahat dan gurunya ngaret 1 jampel. geografi presentasi ttg bencana non alam terus selesai skolah. dilanjut rapat osis tentang ywn habis itu jam 1.30 ijin buat interviewin panitia internal dan lanjut rapat lagi buat GSO dan tadi selesai jam 4an. hbs itu pergi drive thru ke burger king lama bgt smpe jam 7an nympe rumah lgsg makan smbil zoom sm temen buat ngurusin sponsor GSO. hbs tu belajar math brg karena besok ulangan math. dan skrg lg istirahat santai"

"Today I woke up at 6.40 a.m. feeling drowsy, then [I] got ready [for school] and school began at 6. 35 [sic!] I [ate] dim sum for breakfast before Bahasa Indonesia [lesson]. [I] was given [composing] a poetry assignment, and then we talked about questions for a test trial. After that [I] had a three-hour accounting [lesson]. Today we continued to discuss a book and there was a quiz. Because the [school] break had been pushed to the end, I was able to sleep. Following that [I] gave a presentation for PKWU (crafts and entrepreneurship] in the form of dialogues about the products we made. Then there's a break. The session was an hour-lesson-unit. The school concluded with a geography presentation about non-natural disasters. Continued OSIS [students' union] meeting about YWN [Youth Worship Night] and then at 1.30 [I] was excused for interviewing an internal committee and then continued the meeting for GSO [Gramedia Science Olympics?] and which ended at 4 p.m. then I went to Burger King drive-thru [but it] took so long that [I] did not get home until almost 7 p. m and immediately ate my dinner while having a Zoom meeting with friends about sponsors for GSO. Then [I joined] a math group study because I have a math test tomorrow. And now I am relaxing."

Olla's description, as unique as it is, offers a glimpse into the typical social world of students' online education and how they spend their time online. Others passed the time by playing online games and engaging in social media activities. The networked environments where they socialized with their friends were online gaming and social media. Aside from online gaming and social media, there were relatively new social spaces made available by ever-increasing numbers of applications and platforms.

THE IMPACT OF DIGITAL DIVIDES ON DIGITAL SOCIALITY

The majority of participants started using the internet for social media and online gaming, rather than educational purposes. "We only used the internet for Facebook when we were in junior high school." And Mita, a university student from Pekanbaru, said "We should sign up for WhatsApp for group communications." For many Indonesian students, social media was their first encounter with the internet. Half of those interviewed said that they only used laptops or computers extensively

during the pandemic.

It was clear that the time spent online increased significantly during social restrictions and online learning. When asked about the frequency of their offline social interactions, most participants, like Mita, stated that it had changed:

> "Offline friendships are more fun!... We used to be able to have fun but now our interactions are fewer, and it is after all online."

Because of the internet, students discover new ways to interact with their peers at school and beyond. There are some noticeable findings regarding students' online interactions. Online relationships formed by students, whether at school or through personal interactions, were extensions of their offline relationships. Most friendships developed from the same offline friendship circles, but during the pandemic, some new relationships grew beyond school or Indonesian borders. Because of the school closures, most students had never met their classmates in person even after two years. Online friendships were regarded as "weaker", with relationships deemed to end once the online communication and connection were severed. Dinda distinguished between "fully online" friendships from offline and "hybrid" friendships. She described the difference between having friendships online and offline:

> "...and the conversations were usually brief. Like, now when we chat, we no longer chat 24 hours a day. We only talk when we have assignments or when we have classes together, or group projects, or when I need to confide in someone. But when we [were] offline, I nearly spent half of my day with them, from classes to eating. So, there were fewer conflicts. But now and then, we argue because I don't like the attitude..."

Dinda's reiteration of the situation, in which there were no other forms of interaction or meaningful communication besides online classes, resonated with many students. It had something to do with the nature of the web-as-platform, the way the internet captured and coordinated data, and how students responded to the new technologies by compartmentalizing their social networks. One of the most noticeable changes in students' online relationships is this. Students would choose specific media to communicate with on daily basis. Many participants used WhatsApp to communicate with their school classes and families, however, for personal communication, most preferred Line and Telegram.[5]

Students communicated (chat) using encrypted instant messaging and calling services and completed school assignments using "workspaces" platforms such as Class Maker, Discord, Google Classroom, and Padlet[6]. Aside from online classes, they used to work "a-synchronically" and did group work at their own pace, according to Dinda's reiteration of the situation. They preferred to use these platforms because they enabled them both to communicate as well as share files on the same platform.

These participants would react differently, depending on the type of messages delivered to them. They would respond quickly to personal chats because they desired conversations. The majority of participants admitted to being less receptive to messages about school and university. Participants' communication channels shifted from school WhatsApp groups or Google Classroom to personal channels such as LINE and Telegram. They would only submit their assignments via Google Classroom or WhatsApp. Students preferred collaborative platforms that let them to "hang out" as well as those that provided real-time activity streams, instant messaging, and video meetings. Platforms with security access permissions were valued by university students who wanted to have control over their networks. These "access permissions" acted as "gatekeepers", preventing students from joining their group networks.

The networks casually mirrored the offline ones, with clear distinctions between those who were granted permission and those who were not. Their social media (Social Networking Service) divided them. Everyone admitted to using Instagram, TikTok, and Twitter. Those with a large number of followers were regarded as popular and valuable members of the networks. Good grades and economic status were no longer the only factors in determining of who was a "valuable" member of their groups. The number of followers, viewers, and likes was thought to be a better criterion for popularity. These online engagements were new symbolic capital currency that can be traded in competitions for someone's recognition and prestige in his or her social group. We should now address how status and legitimacy, as well as group affiliations matter in the discussion of digital divides within students' sociality (see Ragnedda & Muschert 2015).

Students' sociality changed as a result of a of self-surveillance pattern in their online interactions and networks. One participant described these behaviors as "seeing themselves from third perspectives", as an audience of their messages and online postings. They spent a significant amount of time online, but they were also hesitant to be present online. Participants were generally aware of the importance of safeguarding their personal information and their networks. "Protecting" their networks could take a variety of forms such as switching to private mode on their social media, which had proven to be a common practice. Surprisingly, they had two or more social media accounts (for example two Instagram accounts, two Twitter, and a TikTok). Instead of a "fake account", they referred to their second account as an "altern account". They spent the majority of their time scrolling and participating on the internet using their "altern account" which was set up to access their hobbies and interests such as K-pop and Wibu (Japanophilia) content, online role-playing, or online gaming.

Students' confidence in interacting and networking online was another indicator of digital divides. Their computing and internet knowledge (high digital literacy) and skills were one source of confidence. Those who had more time to explore the internet learned more. Their familiarity with the most recent trends and technologies (as well as how computer algorithms work) increased their social capital. Students who were "*gaptek/gagap teknologi*" - an Indonesian slang term for "technologically illiterate" – were more passive in online classes and discussions. Participants typically did not turn on their cameras during classes because they were self-conscious about their appearance or their living situations, so the topic of "confidence" needs to be expanded further. Two participants said that online classes "violated" their privacy and space (their rooms) with the camera (and the eyes of many others)". There were other explanations as well: such as the fact that students were being too lazy to dress appropriately, having other things to do during their online classes, or simply being tired. These descriptions may appear unimportant, but we must consider both the macro-structural factors driving the digital divide as well as the emotional component of online education during the COVID pandemic.

CONCLUSION

This internet-mediated case study conducted during the peak of COVID-19 restriction, provides a description of the current social world of online education, as well as a glimpse into the daily lives of Indonesian students during the COVID-19 pandemic.

Despite the development and relative accessibility of digital technologies and the internet in Indonesia, this study found that the digital divide hampered students' ability to learn and to grow. In online education, there was a clear divide between the wealthy and the poor: poorer students paid more money for online education than

wealthier students. Furthermore, students from lower-income families had fewer opportunities to interact with other students or teachers, and to grow their digital skills because they lacked access to devices or were unable to use interactive internet platforms.

The study demonstrated that government measures to reduce economic disparities among students, such as the Ministry of Education internet data subsidies, were insufficient. There was also the issue of internet quality, which differ significantly between urban-rural areas, as well as between Java and the outer islands. Due to poor internet infrastructure and lecturers who struggled to adapt to new teaching methods and technologies, the quality of online teaching and learning quality also varied.

This study demonstrated that students' online life were dominated by Social Network, rather than education. The amount of time and data spent to social media far outweighed than the time and money spent on education. Furthermore, students communicated more through their social media, and their education was not the primary space for students' social interactions. Students compartmentalized their communication channels between their online learning and other social activities. Another interesting finding is that students developed new types of relationships and social hierarchies, which were exacerbated by computer and information technologies.

The methodological issues associated with researching digital divides and online sociality are not addressed in sufficient detail in this study. This means that when considering networked environments, virtual ethnography, and sociality mediated by computer algorithms, there is a methodological gap in the social sciences, especially in anthropology. The shift from localized space to networked spaces with ubiquitous computing and algorithms requires the adaptation of online research approaches. Additionally, a better conceptual instrument for participant observations in virtual ethnography is needed.

ENDNOTES

1) Twitter is a microblogging and social networking service; Instagram is a free photo and video sharing and social networking application; TikTok is a social media application that allows users to create, watch, and share short-form mobile videos; WhatsApp is a freeware, cross-platform centralized instant messaging and Voice-over-IP; YouTube is online video sharing and social media platform; Discord is VoIP, instant messaging, and digital sharing platform.

2) How students' information, recommendations, and predictions are the results of a series of instructions used by a computer to transform facts about the world.

3) As a comparison, Zoom requires a minimum of 0,6-1,5 Mbps, and Google Meet requires 3,2 Mbps bidirectional. WebEx's minimum bandwidth requirement is 2,5-3,0 Mbps but for download and upload speed, WebEx recommends a minimum of 5,0 Mbps.

4) The price for one kilogram of rice (medium quality) was around Rp. 9.000- 9.450 (July to September 2021). Data taken from Indonesian Statistic Bureau (https://www.bps.go.id/indicator/36/500/1/rata-rata-harga-beras-bulanan-di-tingkat-penggilingan-menurut-kualitas.html).

5) Line and Telegram are instant messaging mobile applications, considered to be the best alternatives to WhatsApp owned by Meta (formerly known as Facebook). Telegram has a unique feature, cloud storage, hence providing the biggest storage. Line has a user Timeline to post messages, pictures, or links.

6) Padlet is an easy-to-use platform that allows students to collaborate online by posting texts, images, links, documents, etc.

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