Socio-educational implications of technology use during COVID-19: A case study in General Santos City, Philippines

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Abstract
Digital technology has served people for educative purposes and formation of virtual social connections for the co-existence of human relationships amid the COVID-19 pandemic. This article presents the socio-educational implications of the newly-formed virtual relations made possible through technology. It explores the use of emerging technologies and the effect of these technologies to fulfill the social and educational needs of the stakeholders in times of a crisis or emergency. The use of emerging technologies paved the way for the stakeholders to establish virtual relationships with a common goal to rid quarantine boredom, provide relief efforts, and educate the virtual community relative to COVID-19 while maintaining a safe environment. The authors recommend for an empirical research on the newly-existing online group relationships and how these virtual relationships and emerging technologies can affect social relations and human learning behaviors.

KEYWORDS
COVID-19, digital technology, Facebook, higher education, social influence, social media, social networking, social relations, stakeholders, virtual relations

1 INTRODUCTION

Digital technology has been highly vital for the widespread dissemination of information and guidelines that are critical for dealing with the pandemic. Due to the total community lockdown worldwide, the greater majority of earth’s population diverted to the use of digital technology for multiple purposes.

The pandemic has brought people to focus on the advantages of the virtual world within the confines of their homes. For example, students themselves are not able to attend school through face-to-face education, so they opted to social media to search for news and trends. A study reported that in a local place in China, 38.30% of the students searched for news related to the pandemic every day, and accessed online lessons using mobile phones (98.85%) and laptop (75.38%) (Pan, 2020). This example shows the significance of technology for the educational landscape amid the crisis.

Moreover, the advancement of digital technology is evident on the utilization of social media. In Facebook, a glimpse of people worldwide are showcasing scientific advancements, testing vaccines for the 2019 novel coronavirus, diversifying university assessments, advocating human and environmental rights, proposing for scientific patents, etc. All these circumstances are happening within the boundaries of a new dimension in the virtual world.

Despite these advancements, it is undeniable based on recent events that people are losing face to face socialization and contact to prevent the spread of the virus. Consequently, numerous people have used social media, specifically, Facebook as a means for social communication. These virtual relations, however, present challenges to some people as there is less personal communication and can be hurtful due to the threat of cyberbullying because of not having to see people’s reactions (Antonucci, Ajrouch, & Manalel, 2017).

The emergence of social technologies created online activities which posit arguments for both advantages and disadvantages on the social and educational community. An innovative interaction can take place between a classic community and a virtual community, however, it is unknown whether the future will struggle and challenge human learning and social relationships in the digital age (Joo & Teng, 2017). Hence, this research explored the use of emerging technologies to...
"help human beings directly fight against the current pandemic at this moment" (Yan, 2020, p. 2). This article examines the relationships of the people in the community during the pandemic through the lens of the virtual world and encapsulates how people of all walks of life have emerged online for social and educational purposes. The authors studied the relationships through social media as a means to spread awareness and proliferate knowledge about COVID-19 and offered social and educational implications of newly-formed virtual relationships amid the pandemic.

2 | CASE IN THE PHILIPPINES

The Philippines, though a developing country, is attuned to using digital technology for social communication. Based on data (NapoleonCat, 2020) as of January 2020, there are 73,170,000 Filipinos who use Facebook, which is 66.4% of the entire population in the country (Figure 1). Socialization using Facebook has been one of the favorite inclinations of the Filipinos prior to the pandemic. Nowadays, there are many Facebook group pages that emerged to update themselves with the latest trends and news reports related to the pandemic.

In addition, the potential for using social media for forming virtual social relationships is very likely to happen in the Philippines as many people are eager to assess the government efforts to fight against COVID-19. This situation has been proven during the heightening of the confirmed cases of COVID-19 in the country. As of July 14, 2020, the Philippines ranks as having the second highest cases of COVID-19 in the Southeast Asian region based on the report of the World Health Organization (WHO, 2020) (Figure 2). Thus, people are attuned to social media for updates of the confirmed cases as the coronavirus spreads throughout the country.

To temporarily divert the attention of the people from the psychological pressures due to the negative news brought by the pandemic, the use of emerging technologies such as YouTube, Facebook, and TikTok have been the gateways for them to socialize in the virtual world. In General Santos City, a medium-sized local city in Mindanao, Philippines, numerous people are engaged into newly-formed Facebook group pages (Table 1). These group public pages aimed to foster stronger community relationships within its group members, lessen the boredom of home quarantine though sharing of multiple experiences, and achieve a common sense of purpose although bombarded with the pandemic issues. Numerous stakeholders in General Santos City went online to share their content videos made through TikTok. They also posted myriads of pictures in Facebook with details consisting of relevant efforts of private and government organizations to alleviate the spread of COVID-19. The stakeholders in General Santos City formed different Facebook pages according to their common goals as reflected in the table. These are just some examples of the Facebook pages currently existing that involve faculty members, alumni, students, and the entire community in the said city.
TABLE 1 Newly-formed Facebook Group Pages due to COVID-19 Pandemic

| Facebook pages | Members | Nature of acceptance | Purpose |
|----------------|---------|----------------------|---------|
| Group page A   | 59,000  | Invites all stakeholders from General Santos City | To have fun, give feedback on relief provisions of government, compare home quarantine experiences |
| Group page B   | 13,000  | Includes alumni from a specific university | To have fun, share travel and previous undergraduate experiences, strengthen alumni relations |
| Group page C   | 917     | Accepts students and alumni | To have fun, advocate for relief efforts, strengthen student and alumni relations |
| Group page D   | 154     | Inclusive of faculty members | To advocate for relief efforts, assist medical workers, strengthen stakeholder relationships |

3 | CASE ANALYSIS

For educational purposes, the students and alumni of Mindanao State University-General Santos City (MSU-GSC), Philippines use digital technology to learn about COVID-19, socialize for shared experiences, and advocate for social development despite the pandemic. MSU-GSC is one of the prominent universities in the Philippines with a special mandate of offering education to the tripartite communities that comprised of Christians, Muslims and Indigenous People. As a multicultural university that upholds peace advocacy efforts, it envisions to become a National Peace University in the coming years. With the advent of the COVID-19 pandemic, the university, similar to other educational institutions worldwide, dealt with tremendous challenges transitioning to the virtual learning environments. Consequently, the disruption of official classes started on March 16, 2020, and eventually the said university terminated the classes on May 2020 due to the heightened COVID-19 cases in the country. Within these months, there were no online or remote teaching classes in MSU-GSC. However, the university spearheaded relief efforts to the students and other community stakeholders. The students also managed to learn through their own efforts using Facebook and shared their experiences with the alumni in the social media.

Moreover, the alumni created and shared original videos as tribute for the medical frontline workers through the use of the Tik Tok app. They also used the Facebook page as a platform to give updates on the current cases of COVID-19 in the local community including nationwide and worldwide cases. Likewise, some students reinforced hygiene practices through sharing infographics of proper hand washing and healthy living.

To educate the people in the group about the news related to the pandemic, the alumni shared infographics on the history of the pandemics and guidelines on community quarantine. The students themselves were able to access free digital resources on thousands of books to rid their quarantine boredom. A donation drive through the Facebook page also paved the way to obtain financial resources to provide for relief efforts and help the members of the staff and students in the university along with the provision of sufficient aid to the medical frontline workers.

In the Philippines, the potential of emerging technologies to maximize learning through alternative delivery mode is still on a trial stage as of this writing. The curriculum in the Philippines relied on face-to-face education prior to COVID-19, so the educational system has been caught off guard during the crisis. Classes were terminated earlier and mass promotions occurred in the higher education institutions as some colleges and universities are not prepared nor have the available resources to implement distance education. Consequently, officials from the government sectors are currently securing emergency plans and formulating proposals to alleviate the educational disturbances. Nevertheless, the country can access Facebook as a platform for emergency remote teaching since many people including young ones have Facebook accounts, where 24,000,000 with age range of 18 to 24 years old are the largest Facebook users (NapoleonCat, 2020).

Realistically speaking, there are diffusion of fake news in the social media which has become a central debate to scholars. There is a need to assess the veracity of the digital content that has widely affected the society. “The sensationalism of not-so-accurate eye catching and intriguing headlines aimed at retaining the attention of audiences to sell information has persisted all throughout the history of all kinds of information broadcast” (Figueira & Oliveira, 2017, p. 818). “On a light note, however, the global pandemic opened up opportunities to the country to upgrade its educational mode of delivery and transfer its attention to emerging technologies” (Toquero, 2020, p. 4).

3.1 | Use of emerging technologies

The use of Facebook as one of the emerging technologies allowed the students from the university to explore digital learning resources and obtain knowledge to prevent the spread of COVID-19 while maintaining virtual relationships to counter the quarantine boredom. Likewise, the university empowers its students and alumni through the use of Facebook as supplementary to a crisis response tool. The use of Facebook can provide the university with immediate feedback and obtain knowledge to prevent the spread of COVID-19 while maintaining virtual relationships to counter the quarantine boredom. Likewise, the university empowers its students and alumni through the use of Facebook as supplementary to a crisis response tool. The use of Facebook can provide the university with immediate feedback and obtain knowledge to prevent the spread of COVID-19 while maintaining virtual relationships to counter the quarantine boredom.
the benefits of incorporating technologies can be achieved through independent learning among the students (Chawinga, 2017).

Consequently, the university needs to take into consideration the possibility of using Facebook to supplement the alternative delivery mode for distance education since a greater majority of the students in the Philippines are using Facebook. The use of emerging technologies can also contribute for deep learning. One study confirmed through a meta-synthesis that "social media such as blogs and wikis for idea generation, problem-solving through discussions, Skype or Google Hangout, Facebook, and even mobile apps, such as WhatsApp” (Mnkandla & Minnaar, 2017, p. 246) can paved the way to establish and co-create knowledge using digital technology.

Apart from serving as a socialization strategy, the utilization of emerging technologies such as Facebook has also been instrumental for educating people about COVID-19. There are widespread information dissemination of those critical reports and guidelines from the World Health Organization to unite all efforts against the spread of the coronavirus. The use of emerging technologies for the current crisis expedites awareness among people as they can easily monitor the news updates online.

3.2 | Effects of emerging technologies

The students and alumni from MSU-GSC who partake in the Facebook pages are undergoing similar pandemic-related experiences. As a result, they have shown reasons for relatedness in virtual relationships through the utilization of Facebook as a social technology. The virtual relationships that emerged have been vital for them as they found coping mechanisms to counter the stress and anxiety brought by the pandemic (Talidong & Toquero, 2020). The newly-formed virtual relationships give them a renewed sense of hope, social satisfaction, and psychological relief to deter the mental health-related effects of COVID-19 such as the possibility of fatigue, depression, and anxiety.

The emerging technologies such as Facebook, Youtube, and Tik Tok offered positive quarantine experiences to the virtual groups to create a constructive outlook for the stakeholders as they contribute for similar experiences and coping strategies during the crisis. Interestingly, a research studied the predictions of five theories on how social interaction through Facebook can make changes in the psychological well-being of people. The result provided evidence that the "effects depend on the nature of the communication and the relationship between communicators. Receiving more personalized communication—targeted, composed text—from strong ties was linked to improvements in well-being" (Burke & Krauke, 2016, p. 276). Despite the result, it encourages further research for a precise theory.

Moreover, the MSU-GSC students and alumni have shown continuous engagement and support to spread awareness about COVID-19 in the virtual community. They posted relevant infographics and offered free digital resources for the others to access in Facebook while enjoying virtual socialization despite the quarantine effects. These educational and social endeavors fairly illustrate that "the enforced social isolations in the physical world significantly increase humans’ social interactions in the cyber world” (Yan, 2020, p. 2). The situation epitomizes the influential effects of emerging technologies to "effectively facilitate social learning, collaboration, and interaction among students and between students and lecturers to enhance deep learning” (Mnkandla & Minnaar, 2017, p. 228) while maintaining a safe environment that follows social distancing and lockdown protocols to fight against COVID-19.

4 | SOCIO-EDUCATIONAL IMPLICATIONS

Socially, the use of emerging technologies can empower students as they can share critical information and give relevant feedback in the virtual world to expedite the process of information exchange especially during the pandemic. The positive effects of emerging technologies can also cater to the emotional and psychological needs to lessen their stress and anxiety due to the home quarantine.

Academically, it is recommended to use emerging technologies as supplementary tools for instruction during and after the emergency. The teachers can make use of social media to communicate with the students and give pedagogical instruction as numerous students are using Facebook. Through the said social technolog, the university can create a COVID-19 information center with simplified and accessible materials for the students and other stakeholders in the local community to readily access and obtain information about COVID-19. Current updates from relevant organizations worldwide are also possible due to the social technology that educates people to be well-informed on the trends of COVID-19.

5 | CASE CONCLUSION

This article concludes that numerous possibilities and opportunities (Yan, 2020) arise in the use of technology particularly the social media for the formation of social relationships and educational endeavors even through the virtual world. The use of social network also diverted the attention of MSU-GSC students and alumni away from the emotional and psychological pressures due to the crisis. Digital technology allowed for the continuity of social relations and expedited information dissemination relative to COVID-19 while maintaining a safe environment for the people in the community. Despite the emergency situation, the utilization of "emerging technologies hold great promise for the future by overcoming traditional barriers to maintaining social contact, support exchange, and information acquisition” (Antonucci et al., 2017, p. 1). The authors are optimistic of the promise of technology for better social relations but asserted of not replacing the traditional form of social contact. Hence, there is a need to endeavor for empirical research on virtual relationships amid the pandemic and post-pandemic to understand how technology is shaping the social connections, social behaviors, and educational performance of the people in the virtual world. Future studies should also be made on the use of Facebook to maximize the academic outcomes.
of the students in the local context to serve as emergency platform for higher education institutions with limited resources for remote teaching.

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