Survey on Social Media as an Online Learning Platform During the COVID-19 Pandemic

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Abstract: The COVID-19 pandemic, with its existing limitations, also affects every aspect of human life, including education for university students. Therefore, this research aims to provide recommendations regarding using social media as an online learning medium for students during the pandemic. This qualitative research uses a narrative design with the proportional random sampling technique to determine Indonesian university subjects (N= 2141). Data were collected through online interviews and analyzed using Open, Axial, and Selective coding techniques. The results showed that the three dominant social media platforms used for online learning media among students (N total = 2141) were Instagram (N = 1481), Whatsapp (N = 873), and Facebook (N = 683). Social media was selected as learning media due to the ease of access, complete and updated information, as well as its attractive appearance.

Keywords: Social Media, Learning Media, COVID-19

1. Introduction

Social media is an online platform widely used by people to communicate or socialize with others. The platform originally designed for user entertainment changes how information is disseminated (Cinelli, 2021). Social media has several different forms, including blogs, micro-blogs, wikis, social networking sites, photo-sharing sites, instant messaging, video-sharing sites, podcasts, widgets, and virtual worlds. According to Liu (2019), social media's inception has positively impacted information sharing, social interactions, and entertainment. Furthermore, Reuben (2008) stated that it is a potential aspect of universities' overall marketing and information dissemination component.

The ubiquitous presence of social media has a profound effect on the way humans communicate and is vital for cities and businesses. This platform has helped break down the geographic barriers that once limited communication and have led to the explosion of virtual e-participation and online communities. Zhang (2019) stated that social media is useful when used intelligently to obtain information. The positive impacts include 1) Connectivity, where people easily connect with anyone regardless of location and religion, 2) Education, where social networking provides various benefits for students and teachers, 3) Assistance, where individuals are suitable to convey their problems to get help, as well as 4) Information and updates, where social networks point to the latest happenings around the world. Meanwhile, the negative impact of social media is cyber harassing where young people become victims of digital oppression. According to Akram (2017), anyone can use these platforms to create false notes or information to scare as well as causes inconvenience and anxiety in the general public. Furthermore, the use of social media leads to cyberbullying and privacy abuse (Baccarella, 2018). Betul (2020) stated that this platform is extremely influential because it triggers depression, anxiety, and psychological pressure on adolescents. It is even more dangerous when used to spread fake news, thereby serving as a tool for propaganda (Zhuravskaya, 2020).

Presently, there are numerous social media users of Facebook, Instagram, Snapchat, and Twitter (Parwani et al., 2019). Auxier (2021) stated that YouTube is the most commonly used platform on a daily basis by 54% of its users, while Facebook's growth has remained stagnant for the past 5 years despite being widely used. In America, the majority of users within the ages of 18 to 29 years are active on Instagram, Snapchat, and Tiktok. London-based research firm Global Web Index analyzed data acquired from the world's 45 largest internet markets and estimated that in 2021, users spent 90 minutes per day on social media platforms, which increased to 143 minutes in the first 3 months of 2019. The total number of internet users in Indonesia is approximately 49.52%, and they are within the age group of 19 to 34 years, besides the majority being students (Reuben, 2018).

Social media is a public space where adolescents usually spend hours browsing, sharing photos, videos, and information, as well as commenting on other people's posts that also use a similar platform (Cambridge Assessment International Education, 2018). It is interesting to understand the benefits of social media to students in Indonesia because, presently, adolescents are inseparable from these platforms (Ibrahim, Ermatita, Saparudin, &Adetya, 2017). Social media also becomes the primary source of information, especially in the current circumstances where several individuals are being isolated in hospitals or quarantined at home (Pappot N, 2020).

Due to the pandemic, social media serves as an efficient source of information and an effective means to stay abreast of media knowledge (McGowan B, 2012) and other relevant matters associated with education and economics. However, as a feature attached to the community, it also has positive and negative impacts. One of the negative impacts is the wide spread of information, which causes panic (Ahmad AR, 2020). Regardless of the negative effects, it is undeniable that the use of social media is supportingthe teaching learning process in schools and universities in the pandemic new norm. Consequently, this educational paradigm shift requires further surveys to explore the potential and limitations (Rahim, 2021; Ibrahim et al., 2018).

Research carried out by Auxier (2012), entitled "Perception on the ease and use of OPAC in the Airlangga University library" stated that although students enjoyed the ease and usefulness in accessing the OPAC, the discrepancy between the information provided and the conditions on the collection shelf makes it difficult for them to find the desired library material. Therefore, the emergence of social media that involves the active role played by users seems to be able to answer criticism.This research explores the use of social media among university students as an online learning platform. It also aims to obtain information on the most frequent used platform, duration, and those recommended as online learning media for students.

2. Method

This qualitative research uses a narrative design (Creswell, 2014), andthe respondents are comprised of undergraduates spread across 4 provinces in Indonesia, namely South Sumatra, Lampung, Bengkulu, and Bangka Belitung. The rule for determining the number of samples is $N \geq 350$ subjects in accordance with a proportional random sampling technique (Creswell, 2012). Furthermore, data were collectedby distributing online questionnaires using Google Forms. Thiswas prepared based on an open and closed technique where respondents areopportune to select from the available options (Sangadji, 2010).

The data analysis method used is a coding technique comprising Open, Axial, and Selective coding (Creswell, 2012). The descriptive data obtained from the questionnaire are comprehensivelyanalyzed,with the ATLAS ti program used todetermine the main themes of the research problems. Qualitative Data Analysis, Research Software and Microsoft Excel program were used forclassification.

3. Results and Discussion

Results

a. Demographic Data of Research Subjects

The research subjects of 2141 students comprising 1304 male and 836 female were selected from various universities in 4 provinces namely South Sumatra (N = 567), Lampung (N = 417), Bengkulu (N = 824), and Bangka Belitung (N = 333).

b. Dominance of Social Media Platforms Used by Students

The first theme was to determine the social media platforms commonly used by students. The survey data was analyzed, and the results are shown in Figure 1.
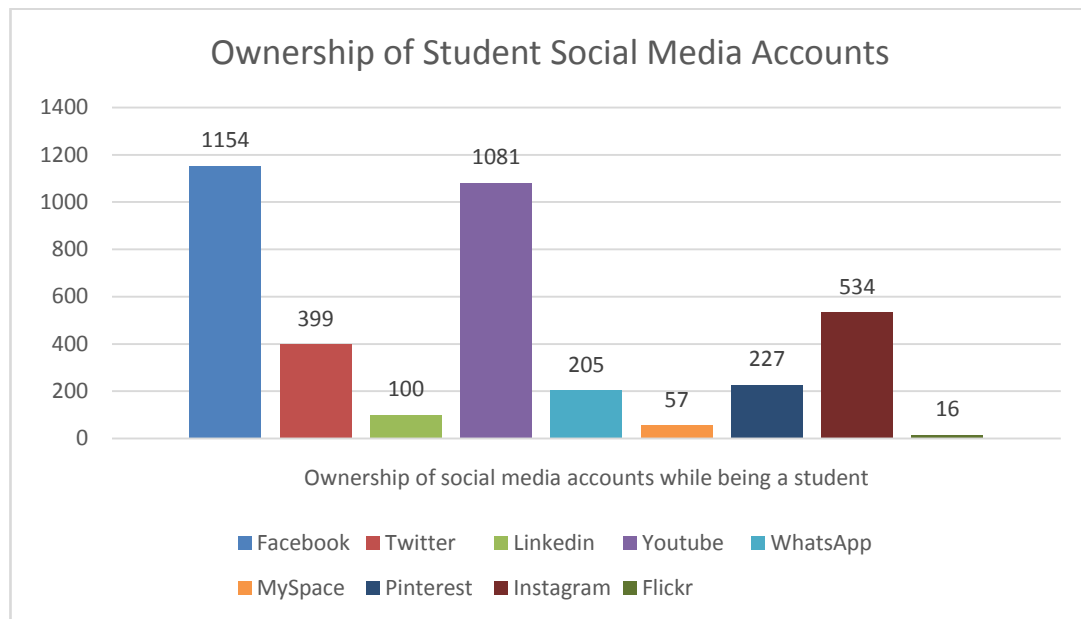
Figure 1: Ownership of social media accounts

Based on the survey results in Figure 1, the social media platforms commonly used by students are Facebook (N = 1154), followed by YouTube (N = 1081), Instagram (N = 534), Twitter (N = 399), Pinterest (N = 227), Linkedin (N = 100), MySpace (N = 57), and Flickr (N = 16).

Facebook is the most popular social media platform, and according to its official website, "its mission is to give people the power to disseminate information and make the world more open and connected" (Facebook, 2021). This allows several people to connect with friends, family members. It also gives them acquaintances and the opportunity to post and share content, such as photos and status updates (Stec, 2020). Furthermore, YouTube is the most popular dedicated video-sharing application with over 1 billion users, approximately 33% of the Internet population (YouTube, 2021). It is designed for creating and sharing videos and other activities online. This is not only limited to music rather, it also includes movie trailers, video games, sports, user content, and program recording. The popularity of this domain has empowered collaboration and social participation on a large scale (Balakrishan& Griffiths, 2017). Meanwhile, Instagram is a mobile application for sharing photos, and it allows users to take pictures, apply filters, and share them on this platform and others such as Facebook and Twitter (Stec, 2020). According to its website, Instagram has approximately 400 million monthly active users that upload relatively 40 billion images, with an average of 3.5 billion daily likes for >80 million photos shared daily on the site (Instagram, 2021). However, more than half of young adults between 18 to 29 years reportedly use this platform, making them the largest group of Instagram users (Duggan, 2015). Founded in 2006, Twitter has been categorized as a microblogging site where users interact with their followers in "real-time" using 140 character tweets. They tend to communicate using mentions, replies, and hashtags (Stec, 2020). Twitter released 320 million active users with 1 billion unique monthly visits to the site from embedded tweets (Twitter, 2021). Subsequently, Pinterest is described as "a visual discovery tool that is used to obtain ideas for all projects" (Pinterest, 2021). With more than 72.8 million users, this platform is a fast-growing online image-sharing application that allows users to gather and showcase ideas by "pinning" photos related to the assigned projects, hobbies, and inspiration to thematic boards. Users are permitted to pin their photos from other websites or re-pin images from other users' boards within Pinterest. Unlike other image-sharing sites or social networks such as Flickr or Facebook, users of this platform do not upload and share personal images rather they circulate those found on Pinterest or elsewhere on the web (Scolere& Humphreys, 2016).

Based on further analysis, the 3 social media platforms commonly used by students were Facebook (N = 1154), YouTube (N = 1081), and Instagram (N = 534). These have the most popular tendencies to be used as online learning media for students. This was proven in the next theme regarding whether they were recommended for educational purposes. Meanwhile, the 3 social media platforms with less tendencies are Linkedin (N = 100), MySpace (N = 57), and Flickr (N = 16). This finding is consistent with the study carried out by Nagel et al. (2018), which stated that Facebook is the commonest social media platform used by students. According to Siddharta et al. (2020), Facebook, YouTube, and WhatsApp are the most frequently used applications. The use of online social media platforms for collaborative learning and interaction with mentors and co-workers increases student engagement, consequently affecting their academic performance. Based on empirical studies, it is evident that social media communication tools facilitate information retrieval and interaction with others in real-time regarding the sharing of teaching material contents (Anshari& Khan, 2020).

c. The intensity of Using Social Media among Students

The second theme determined the intensity of using social media among students. The results of the survey carried out are shown in Figure 2.
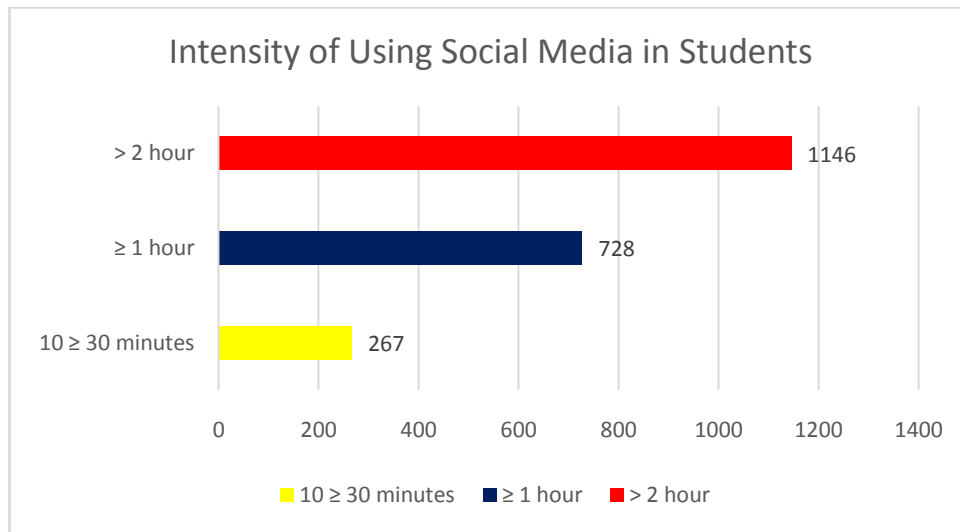

Figure 2: The intensity of using social media

Based on the data in Figure 2, N = 1146, 728, and 267, culminating in 2141 students that admitted to using social media for > 2 hours, 1 hour, and 10 ≥ 30 minutes, respectively. These results indicate that students' use of social media for more than 2 hours daily is very high at approximately 53% (N = 1146).In terms of time spent on the internet, Indonesia is ranked fourth globally, with an average of 8 hours 51 minutes daily. This is dominated by social activities in cyberspace, and the percentage of users constitutes relatively 49% of the population with a duration of 3 hours 23 minutes in a day. The intensity of social media usage by children, adolescents, and adults, varied greatly. However, according to the current phenomenon, active users are young adults aged from 18 to 24 years. Intensity is described as a person's interest based on the quality and quantity designated by the individual. Therefore, the daily usage that has exceeded normal limits also impacts communication in the real world (Silmi et al., 2020).Further analysis related to the active use of these platforms by students is shown in Figure 3.
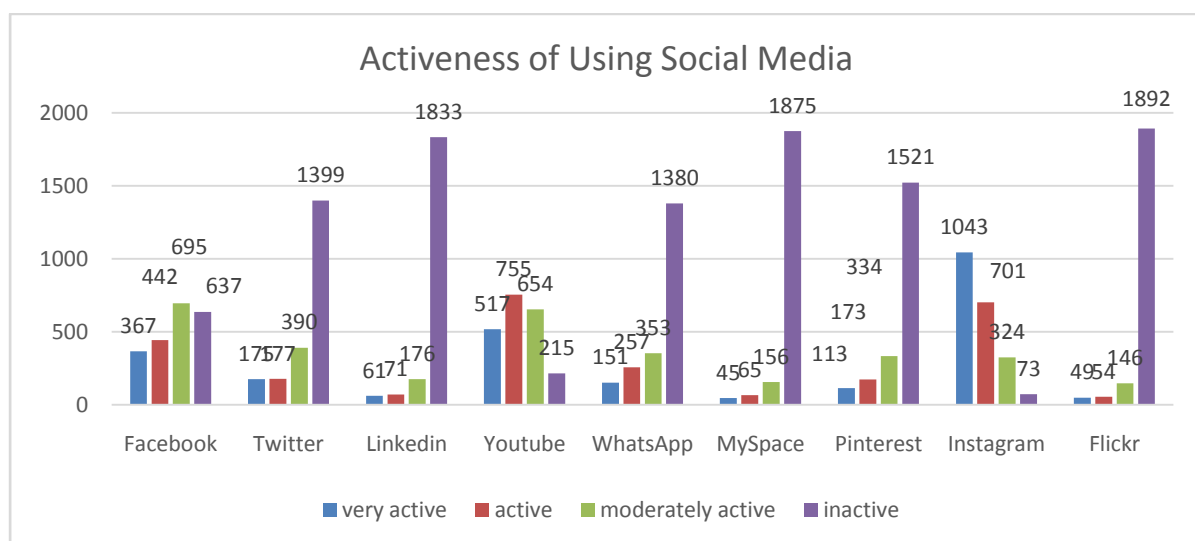

Figure 3: The activeness of using social media platforms

The highest users activeness was exhibited on Instagram (N = 1043), followed by Facebook (N = 367), YouTube (N = 517), Twitter (N = 175), and other platforms. This is consistent with the ownership of the accounts, as earlier mentioned.

d.   Social Media as Online Learning Media

The third theme was to determine the platforms used as online learning media. The results of the survey carried out on the students are shown in Figure 4.
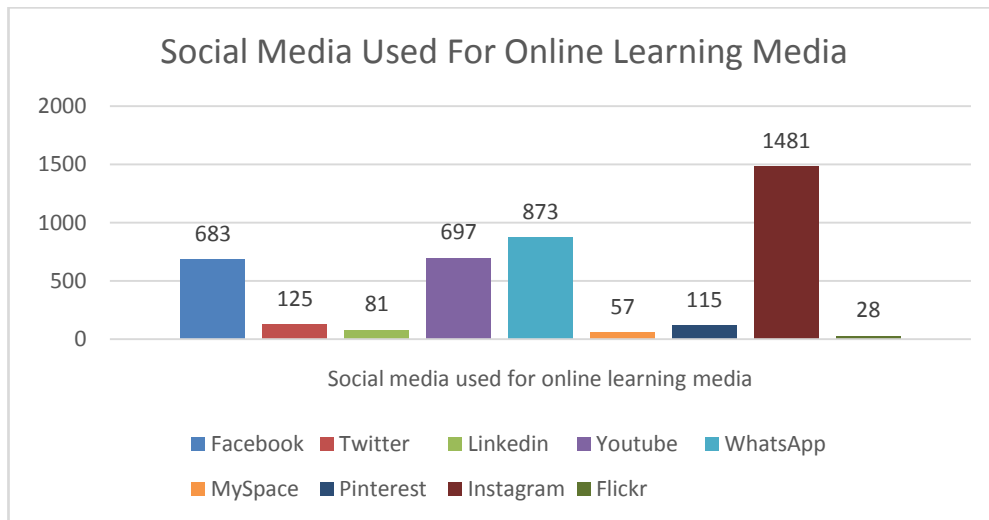

Figure 4: The dominant social media platforms used

Figure 4 shows that the dominant platforms used for online learning media (N total = 2141) are Instagram (N = 1481), Whatsapp (N = 873), Facebook (N = 683), YouTube (N = 697), Twitter (N = 125), Pinterest (N = 115), Linkedin (N = 81), MySpace (N = 57), and Flickr (N = 28). These are regarded as powerful tools for teaching and learning practices based on their openness, interactivity, and sociability (Manca&Ranieri, 2016). Despite replacing the conventional teaching approach, they have become a virtual environment for educational purposes that allow students to create, share and receive user-generated content based on their interactive features (Vivakaran&Neelamalar, 2018).The survey was based on the reason students preferred some online learning media, and the results are shown in Figure 5.
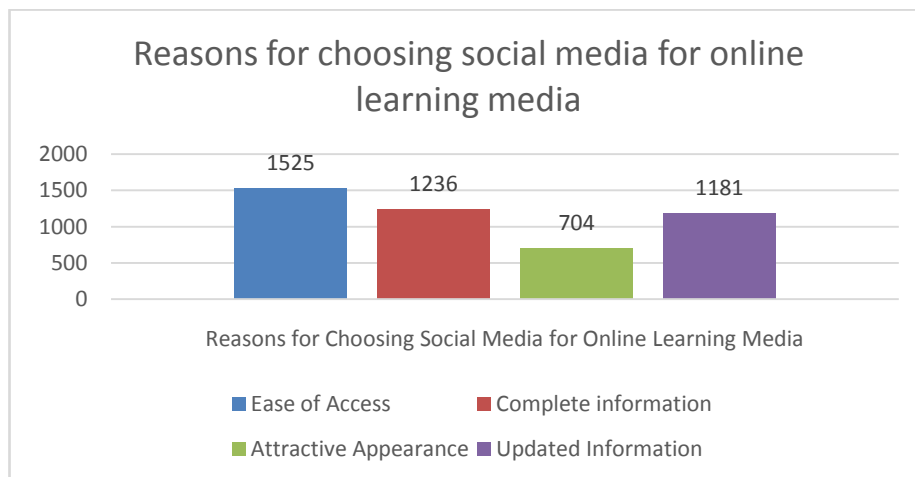

Figure 5: Reasons for Choosing Social Media for Online Learning Media

In accordance with the reasons for selecting certain learning media, students (N Total = 2141) chose ease of access (N = 1525), complete (N = 1236), and updated information (N = 1181), as well as attractive appearance (N = 704). The use of social media and mobile devices has both advantages and challenges. Most of the benefits are perceived in terms of accessing course content, video clips, transfer of instructional notes, etc. Overall, they feel that social media and mobile devices are cheap and convenient to access therefore, these are tools used to obtain relevant information (Ansari & Khan, 2018). Whiting and Williams (2013), identified 10 attributes that motivates the use of these platforms, namely social interaction, information seeking and sharing, passing time, entertainment, relaxation, communication, and convenience utilities, expression of opinion, and supervision of knowledge.

4. Discussion

Presently the use of social media as a learning medium is mandatory because it offers several benefits. In this research, the commonly used platforms were Facebook (N = 1154), YouTube (N = 1081), and Instagram (N = 534). This is consistent with the research carried out by Nagel et al. (2018), which stated that 89 or 95.4% of the respondents actively used Facebook, followed by YouTube (77.0%), and Instagram (71.3%). However, Mese and Aydin's research (2019) regarding the use of social media among 549 students found that Instagram (42.4%) and WhatsApp (45.0%) were the most widely used platforms, while YouTube (4.9%) and Facebook (2.4%) were ranked the least. Similarly, Christopher et al. (2021) stated that WhatsApp ranks first as the dominant application used by an average of 12.87, followed by Facebook (m=10.19) and Instagram (m=7, 69). Therefore, it was concluded that these 2 are the most commonly used platforms.

Most students use Facebook to gain satisfaction through posts and comments, which gives them a feeling of being accepted in society (Pathan *et al*., 2017). In this research, it is the most widely used compared to other platforms. This is because it offers the best opportunity for educators to introduce this learning media in their classrooms without the need for orientation. Also, it motivates students, triggers effective learning, and provides a more positive classroom climate (Mazer, Murphy, & Simonds, 2007).Despite potential concerns on privacy and Facebook as a means of communication outside the classroom, the surveyed students and faculties were less likely to perceive this as a barrier (Roblyer *et al*., 2010). Another researchreported that students already use this platform as a coordination tool outside of the classroom (Lampe *et al*., 2011), contributing to a better sense of learning community (Barczyk & Duncan 2013). Therefore, as a universal platform, Facebook is probably the most accessible social media to integrate into the classroom, especially for student engagement and collaboration.

Instagram, which first appeared in 2010, was launched as a photo-sharing platform. Over time, other new features like video, SMS, and story sharing have been added, which contributed significantly to its growth. In terms of language learning, this social media application strongly motivates students' toparticipate in classroom activities (Erarslan, 2019).According to some research Instagram is an effective platform thatcauses students to interact with their peers during group work related to the videos they recordedbased on teacher-led assignments. Social media has developed at an unprecedented rate with an ever-increasing number of users, especially among the youths. Instagram, which is growing in popularity all over the world, is a platform where users share their content in the form of photos or videos, therebyplaying a potential role in learning. Social media platforms especially Instagram allow students to create a cooperative, and collaborative atmosphere which supports formal classroom settings in addition to sharing learning materials. One additional significant findingsdiscovered was that the respondents agreed that this platform supports face-to-face learning. Social media networks are useful for enhancing face-to-face learning. Therefore, some studies emphasizedon the additional use of social media platforms to support traditional classroom learning. Furthermore, students consider Instagram as a motivational tool that promotes educative purposes. Modern networking technologies allow social media communities to share knowledge and create conducive learning environments whichmotivatesthe students to engage in academic activities carried out on online spaces. In terms of language learning objectives, Instagram has been proven to be an effective tool. This networking site provides opportunities for students to improve their communicative skills through practical opportunities. Additionally, social media is beneficial to students that are intimidated to share their opinions and thoughts. Instagram provides educational opportunities related to language learning purposes and this aids themto feel relaxed and spontaneous. The students further stated that through the assignments shared on this platform, they were able to improve their communicative, writing, and reading skills. Based on surveys as well as experimental and interview findings, Instagram supports students' language learning as it provides an opportunity for them to practice with their peers, those around them, and even the world in general.This is realized by exposing them to language content outside the classroom and improving their skills in this field (Erarslan, 2019).

Over the past few years, WhatsApp has been used as a communication platform by various student groups. Recently, teachers organized ingroups, a type of "simple social network" for the class. Presently, WhatsApp has certain advantages over other technological tools adopted by the educational system, such as low cost, simplicity, accessibility, efficiency, and natural language. This application supports knowledge sharing betweenthe students and teachers. The undergraduates consider WhatsApp a "transnational communication platform" where they tend to express themselves freely in an unrestricted environment, thereby removing the constraint characterizedbythe lecturers' poor participation. Based on previous research, 82% of the students are eager to post videos, audios, texts related to problems and learn from other people's posts. A total of 86.72% and 86.55% agree that the Availability of Facilitators and Learning anytime and anywhere are the 2 main advantages of using thisplatform. In addition, most students agree that WhatsApp is easily used, available, and downloaded. It is a simple application and provides privacy at a low cost compared to other social networks like Facebook or Twitter. Interactive sessions between students, easy accessibility and sharing of learning materials, high interaction with facilitators, and immediately erased doubts are other educational

advantages of WhatsApp. It also permits learning outside the classroom including the availability of teachers to attend to the studentswhich leads to the potential to improve the learning process. This platform also allows easy and fast transfer of links to the subject matter (Sonia & Alka, 2017).

Furthermore, the daily use of social media by students is classified as high mobility. However, 1146 (53%) out of N Total = 2141 students admitted to using social media for > 2 hours, which iscategorized as high mobility. Meanwhile, another 47% spend between 10 minutes to 1 hour on these platforms.

Social networking sites are common among undergraduates due to the availability of smartphones and computers at home. The utilization of these platforms reduces the time students spend on academic activities. According to Kolhar et al. (2021), only 1% use social media for educationalactivities, while the majority (35 to 43%) use it for other purposes such as chatting. Nowadays, theseare used to retrieve the necessary information for educational purposes. However, the negative use of these platforms also affects academic progress becausemost participants use them to chat.

Young adults are the largest users of social media (Facebook, YouTube, Twitter, Instagram, Snapchat, and Tumblr). In total, 88% of thosewithin 18 to 29 years reportedlyusedthese platforms (compared to 37% of the older age group). Youths also spend an average of 3 hours daily compared tothe older ones (Illakuvan et al., 2018).

Based on previous research on the intensity of using social media, 201 or 44.77% of the respondents spent more than 21 hours a week,while the remaining 2.49% used it for approximately 2 hours (Wirtz et al., 2017). Preliminarystudieshavereported that students that spend more time on these platforms tend to perform poorly in their academics. This is because they spend time chatting and making friends on social media sites rather than studying (Owusu-Acheaw & Larson, 2015; Abbas et al., 2019). Therefore, it is important to determine the proportion of time spent on these sites for academic purposes. Lampe, Ellison, and Steinfield (2006) stated that people use these platforms to obtain information about others, which helps them to maintain interpersonal relationships (Seidman, 2013) and fulfill certain needs (Baumeister & Leary, 1995). Meanwhile, others use the opportunity to meet like-minded individuals as well as to develop friendships and receive social support (Wellman & Gulia, 1999). However, Jung and Sundar (2016) reported that elderly citizens over 60 years use these platforms, particularly Facebook, for social bonding, and bridges, curiosity, and a means to respond to requests from family members. Joinson (2008) identified 7 motivationalfactors associated with using this app,namely shared identity, photos, content, social connections, investigations, and network browsing, as well as status updates. Furthermore, Alhabash and Ma (2017) stated that entertainment-related content motivates younger users to spend more time on Facebook.

This research reported that the dominant platform used as online learning media (N total = 2141 students) is Instagram (N = 1481), followed by Whatsapp (N = 873), Facebook (N = 683), Youtube (N = 697), Twitter (N = 125), Pinterest (N = 115), Linkedin (N = 81), MySpace (N = 57), and Flickr (N= 28). Based on this order, the 3 that arelikely to be used as online learning media are Instagram (N = 1481), Whatsapp (N = 873), and Facebook (N = 683).

Students widely use social media for both academic and entertainment purposes. It influences the users' cognitive abilities and practices. According to Le Gall et al. (2020), social media provides access to peer support and learning facilitation. The studiescarried out at the University of Central Florida reported that electronic devices and social media provide opportunities for students to learn collaboratively and also allow them to share resource materials with their peers (Gikas & Grant, 2013). Meanwhile, the results from studies carried out in 8 Egyptian universities confirmed that social media significantly impacts higher education institutions, especially in terms of learning tools and teaching aids. Its use by faculty members is perceived at a minimum level due to several barriers such as internet accessibility, mobile devices, etc. Social media and mobile devices allow students to create, edit, and share course content in textual, video, and audio forms. These technological innovations create a new type of learning culture based on exploration and collective interactiveprinciples (Selwyn, 2012).

Social media is a phenomenon that started in 2005 after the existence of Web2.0 became a reality. This is clearly defined as "a group of Internet-based applications built on its ideological and technological foundations as well as enables the creation and exchange of the resulting content. Mobile devices and social media allow students to access resources, materials, course content, including interacting with mentors and colleagues (Kaplan & Haenlein, 2010).

These platforms aim to boost communication, collaboration, community, creativity, and convergence activities useful for educational purposes and making friends. At this point, Friedman (2011) stated some of the serious problems faced by education that can be solved with online learning, namely budget atrocities, making education attractive and relevant to students, increasing standards, and reducing high dropout rates. Therefore, online social networks aidto boostacademic purposes. In Saudi Arabia, the most common social networking

sites which develop students' educational performance are WhatsApp (67.90%), Facebook, Twitter, LinkedIn, and Snapchat (Alaslani & Alandejani, 2020). Rosy, (2018), stated that these networking services and visual learning environments makesacademic processes more interesting, fun, and effective. Online classes provide students with educational opportunities that triggers their lack of interest in a subject, school budget, or teachers' expertise. In some cases, it is more influential than the traditional approach. Means et al. (2009)carried out a systematic search of more than a thousand empirical literature on online learning from 1996 to 2008 and discovered that students thatparticipated in online educational environments performed better compared to those thatengagedin face-to-face learning. However, effective online academics depends on 3 aspects, such as "1) well-designed learning content, motivates interaction between instructor and learners, skilled and competentlecturers, 2) creates a sense of online learning community, and 3) rapid technological advances" (Sun & Chen 2016).

Online education has been practiced in various forms around the world and is presentlydeveloping at an exponential rate. In 2013, a total of 32% of undergraduates took at least one online course (Allen & Seaman, 2013). Meanwhile, from 2010 to 2011, 89% of universities offered fully online taught classes, hybrids, or other forms of distance education (Parker, Lenhart, & Moore, 2011).

5. Conclusion

This research reported that Instagram, WhatsApp, and Facebook are the most widely used social media platforms for online learning during the COVID-19 pandemic. Theseare also used to retrieve information for educational purposes. Instagram, WhatsApp, Facebook, and others make it easy for individuals to acquireinformation. This is also supported by a large number of users,as well as their high intensity and activeness therebymaking the exchange of information more accessible. This motivates respondents in terms of selectingcertain platforms for online learning.

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