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Social Media in Education: A Case Study Regarding Higher Education Students' Viewpoints

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Abstract. The digital prevalence on everyday life caused by the coronavirus pandemic (COVID-19) has drastically impacted the whole world. The educational domain was no exception and has been affected by this rapid shift to online and virtual learning environments. Social media are widely used as a means to share ideas and opinions, acquire knowledge, get informed about news, communicate and collaborate. Moreover, social media are in line with several learning theories. Therefore, their integration in educational settings has the potential to yield several benefits. The aim of the study is to examine this digital shift by analyzing and comprehending higher education students' experiences and viewpoints regarding the use of social media in education. In total 130 students participated in this study. Based on the results, the majority of students viewed the integration of social media in education positively and regarded it as a means that promotes and enhances communication, group work, collaboration as well as knowledge and ideas sharing with both fellow students and educators. Moreover, students considered social media to be an invaluable teaching tool that when used in a student-centered manner can increase their productivity, engagement, motivation and academic performance as well as improve the teaching and learning process. Finally, social media was assessed as essential for today's life and as a promising tool that will be more widely used in educational settings in the near future.

Keywords: Social media, Education, Technology enhanced learning, Social networking services, Educational technology, Online learning.

1 Introduction

The abrupt outbreak of the coronavirus pandemic (COVID-19) has had a significant impact on the whole world. With schools and universities having been suspended in 189 countries by April 2020 and the need for rapidly switching the educational process from traditional face-to-face to online learning, the educational sector was one of the

most affected sectors (Ewing and Vu, 2020). During this period, social media and e-learning services have greatly assisted in fulfilling this transition and enhancing the learning experience. Our earlier studies (Lampropoulos et al., 2021) highlighted the significant role that the digital native students play in this digital shift and shaping the virtual learning environments. Consequently, it is essential to explore students' perspectives and opinions.

In this view, this study aims at examining this digital shift by analyzing and comprehending higher education students' experiences and viewpoints regarding the use of social media in education. In sections 2 and 3, the background of this study which includes social media use in education and related work is described respectively. Furthermore, the research, the methodology followed and the analysis of the results are presented in Section 4. Finally, in Section 5 the main outcomes and conclusions of this study are discussed and directions for future research are given.

2 Social media in education

Social media is rapidly changing the landscape of collaboration and is developing into the most important bottom-up interaction and multi-way communication tool among individuals for discussion, knowledge sharing, comments and ratings, content and information creation and exchange (Makkonen et al., 2019). Moreover, as it enables users to publicly share their ideas, viewpoints, experiences and knowledge, social media has turn into a tool through which people communicate, discuss, interact and evolve in personal, professional and educational communities and environments (Makkonen et al., 2019). Its emergence has impacted significantly the way students learn and teachers teach. Social media can be regarded as a network that represents the relationships among people (Devi et al., 2019).

Many studies regarding the use of social media in education suggest that the widespread of social media applications as an addition to formal educational settings offers new opportunities for innovating and modernizing educational institutions and for preparing learners for the 21st century (Redecker et al., 2010). A primary reason for adopting social media in the classroom is that it is affordable at low or no cost at all, readily available and easy to use.

Students today, the so-called "digital natives" born after 1980, are the first generation that has grown up with and actively use social media in their free time. Moreover, their network effects are important in educational and pedagogical settings. If the social and cultural identity of digital natives is constructed through this media, then it is important that teachers carefully leverage the possibilities of these technologies for collaborative knowledge building in parallel with the benefits of traditional classroom instruction. The pedagogical potentials of using social media in education and learning have been investigated by various scholars (Dede, 2008; Greenhow, 2011; Halverson, 2011; Manca and Ranieri, 2013; Siemens, 2005; Siemens and Weller, 2011). They emphasized the potential of the technology to support collaborative knowledge construction, to access specialized just-in-time information, to contribute to the hybridization of

expertise, to relational development and peer/alumni support especially in times of transition, academic help-seeking, to social and civic benefits and to blur the boundaries among learning, social and leisure spaces, which can also pose challenges to learning (Halverson, 2011; Manca and Ranieri, 2013). It must be stated that when using social media in education and learning, a skilled moderator for effective learning to occur during the collaborative knowledge creation process is needed (Lazonder et al. 2003).

3 Related work

Churcher et al. (2014) considered that collaborative social media requires re-thinking of the theoretical framework through which we engage student in communities of practice. By presenting two case studies, a Facebook Community of Practice (CoP) and a wiki-based exam platform, they proposed rethinking of Vygotsky's (1978) conceptualization of social constructivism within learning communities. Vygotsky considered that knowledge is constructed through dialogue and interaction with others and language is used as a tool to construct meaning (Vygotsky, 1978). Learning is an internal mechanism within the individual (intra-psychologically). However, learning may occur through collaboration at an individual level. Knowledge is co-created in the environment. The benefit of using social media is that it enables students to connect, create and spend time in virtual communities (Lave & Wenger, 1991; Wenger et al., 2009). Student worries regarding using social media in education and learning mostly concerned the evaluation process, as they were less certain of how to navigate a successful grade in producing work in an evaluated social media environment. Similarly, the teachers felt uncertainty in terms of instructing students and providing clear and reassuring guidelines for online activities. It was found that the more specific the instructions were, the more productive and richer the students' responses were. Facebook instruction and assignments were found to be most helpful when a specific task or question was posed.

Halverson (2011) discussed the dilemma of privacy in using social media in formal education and propose private spaces, such as Facebook groups, to overcome eventual concerns of teachers and learners. In order to successfully introduce social media into formal education, its use must be tied to achievement of learning goals. The use of profile building, photo sharing and private messaging may be difficult to link to learning goals, but building on features, such as customizing profiles to see who has expertise in what, may bring additional advantages to learning. Learners have the control of their virtual identity and the way they display themselves.

Manca and Ranieri (2013) carried out a critical overview of current studies focusing on the use of Facebook as a technology-enhanced learning environment, with the aim of exploring the extent to which its pedagogical potential is actually put into practice. The authors conducted a comprehensive literature search that identified 23 relevant articles that were subsequently analyzed according to a simplified list of guidelines. Despite its continuing popularity as the social network site par excellence, the educational value of Facebook has not been fully determined and results of the mainstream educational paradigms are contradictory, with some scholars emphasizing its pedagogical

affordances and others cautioning against its use for educational purposes. The results show that pedagogical affordances of Facebook have only been partially implemented and that there are still many obstacles such as implicit institutional teacher and student pedagogies, and cultural issues that may prevent a full adoption of Facebook as a learning environment.

Yeo (2014) examined the use of social media and the social networking applications for learning and pedagogical purposes by carrying out a study which involved qualitative informal interviews with tertiary students and lecturers in Singapore. The results indicated that students preferred using YouTube videos and Facebook to make friends, to network with friends and to be able to learn at their own pace and place. They liked to learn informally beyond the boundaries of the textbook and the classroom. However, the problems leveraging for learning included the distractions that would “take away the learning time” from the myriad of games and the various social stimuli available on YouTube and Facebook. The data also revealed that both students and lecturers were positive about using Facebook as a “social” platform to build good relationships with one another even outside the school environment. Nonetheless, both strongly insisted on the necessity of face-to-face lessons for communication and for facilitation of academic and formal learning. Hence, they proposed a blended approach of using traditional teaching and learning methods in combination with social media.

Greenhow and Askari (2017) examined how social network sites are perceived and used by teachers and learners in publicly supported school grades prior to college. They particularly investigated impacts of social networks on pedagogy and on students’ learning. Their findings revealed that due to the rapid pace of socio-technical advancements in general, in contrast to the slow pace of technology adoption and change in schools, the practices of learners and teachers with social network sites take mostly place as an additional practice in their leisure time. They also observed that teachers and learners who were active social network site users in their personal lives were among the strongest supporters of using social media in education and reported plans to use it in future teaching practices. However, the workload of teachers and the structured and standardized curriculum were found to be inhibitors to social media adoption. Furthermore, infrastructure limitations, such as learners and teachers lacking computers or internet access at home, were impediments to the use of social media in education and learning. All in all, learners believed in the potential of using social network sites as support for learning, their actual academic help-seeking, collaborative learning, and other self-directed educational activities outside school environment. Finally, due to the popularity of social media among people and its potentials in education and learning, they postulate that teacher education initiatives should include opportunities to critically evaluate recent research literature on pedagogy trends regarding social media use in education and conditions for potentially beneficial or harmful social media integration.

Krutka et al. (2017) carried out a survey including the reflections and class activities from education courses involving 71 students of three universities to better understand the successes and shortcomings when using Twitter. They found that social media successes in educational settings included positive effects on relationships (75% of the students), benefits of academic affordances of social media (72% believed that the use

of social media contributed to understanding course content), increased participation and communication (47% stated that communication with their classmates was what they most enjoyed about using social media), and intriguing visions for future social media use for professional and personal uses. As the main advantage of using social media in education and learning, 23% of the students mentioned the ease of using social media and 17% the ability to respond quickly. 15% of the students appreciated that social media expanded temporal and spatial bounds enabling them thus to communicate with others in ways that might not have otherwise been possible. Shortcomings included defects in course organization and facilitation and mismatches between expectations or preferred uses of instructors and students.

Chawinga (2017) investigated how social media facilitates teaching and learning by incorporating Twitter and blogs into two undergraduate courses offered in a public university in Malawi. Data was collected by i) analyzing blog and Twitter posts by students and in addition, ii) by carrying out a survey which involved 64 students and aimed at finding out their perception towards the use of blogs and Twitter in a classroom environment. The results showed that if appropriately deployed, Twitter and blogs are catalysts for a learner-centered approach because it was emerged that students widely shared and discussed course material, posted their course reflections

4 Our study

The study was carried out in the pre-covid period and involved higher education students from the Department of Information and Electronic Engineering of International Hellenic University in Greece. Particularly, 130 students participated (female: 17 (13.1%), male: 113 (86.9%), mean age: 18.31) in a paper-based questionnaire regarding their viewpoints about the use of social media in education. The distribution of the students' age is displayed in Fig. 1.

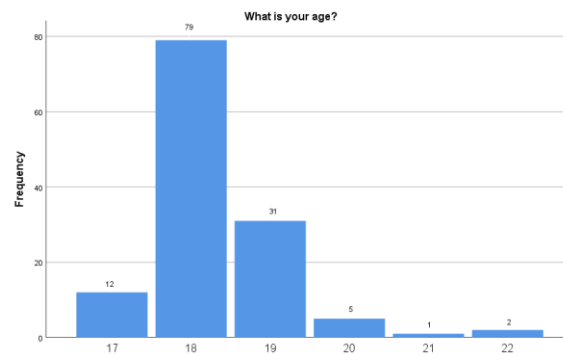


Fig. 1. Respondents' age distribution.

It is worth noting that, 114 (87.7%) students have been using social media for more than five (5) years and 16 (12.3%) of them for about three (3) years. Additionally, the

majority of students spent more than an hour (49.9%) or even more than three hours (34.6%) on social media daily (Fig. 2).

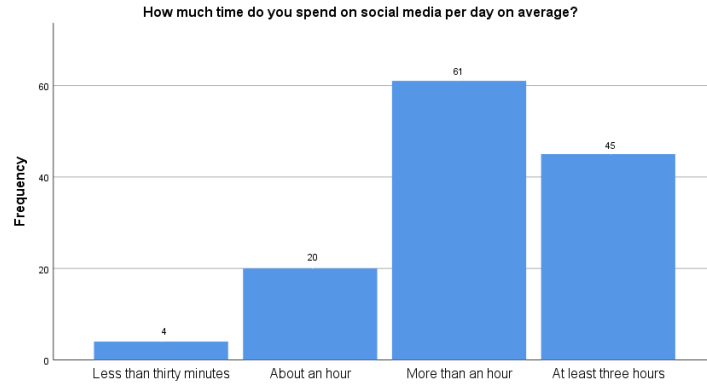


Fig. 2. Average time spent by students on social media daily.

When asked about which social media they used, the majority of students answered that they use YouTube (130), Facebook (126) and Instagram (112) while Flickr, LinkedIn and Tumblr were not used as frequently. Fig. 3 displays the distribution of the students' responses. The most popular social media platforms for educational purposes as it can also be seen in Fig. 4 were YouTube (95 - 73.1%), Google+ (20 - 15.4%), Facebook (7 - 5.4%).

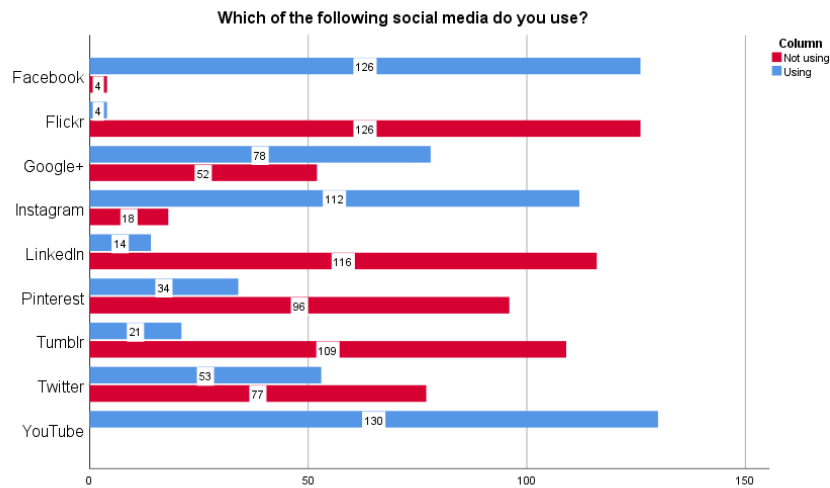


Fig. 3. Students' social media use

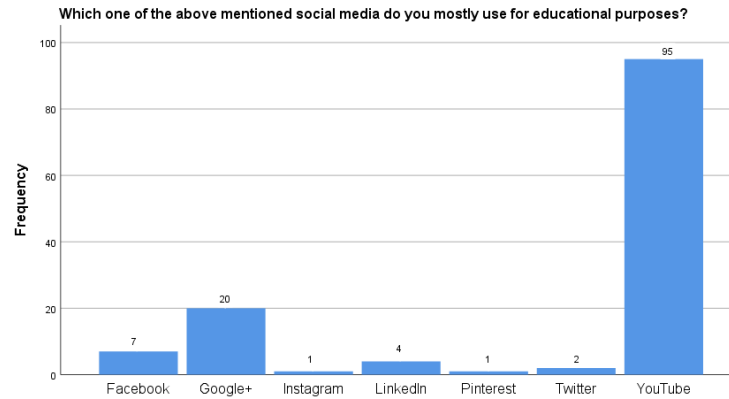


Fig. 4. Mostly used social media for educational purposes by students.

From the students, 53 (40.8%) stated that they use social media strictly for personal purposes, 2 (1.5%) of them for educational purposes while 75 (57.7%) of them declared that they use social media equally for both purposes. In addition, 94 (72.3%) students use their mobile devices to access their social media accounts, 28 (21.5%) use their desktop while only 8 (6.2%) use their laptops.

When asked about their preferred classroom organization, 88 (67.7%) students selected traditional, face-to-face learning, 8 (6.2%) distance learning while 34 (26.2%) had no preference. Finally, the majority of the students stated that they used social media for educational purposes frequently (44.6%, Fig. 5) and often used it as a means to communicate with their fellow students (54.6%, Fig. 6).

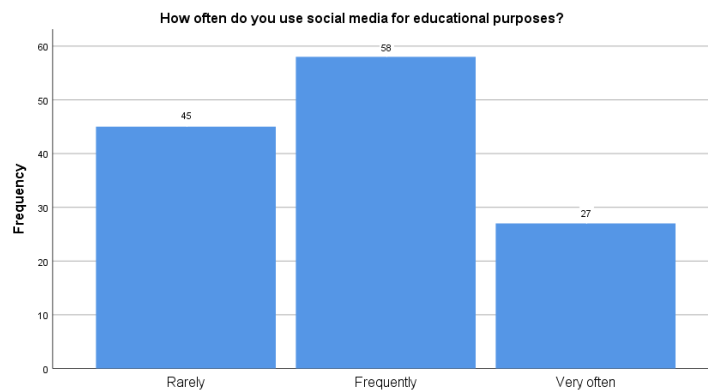


Fig. 5. Frequency of social media use for educational purposes.

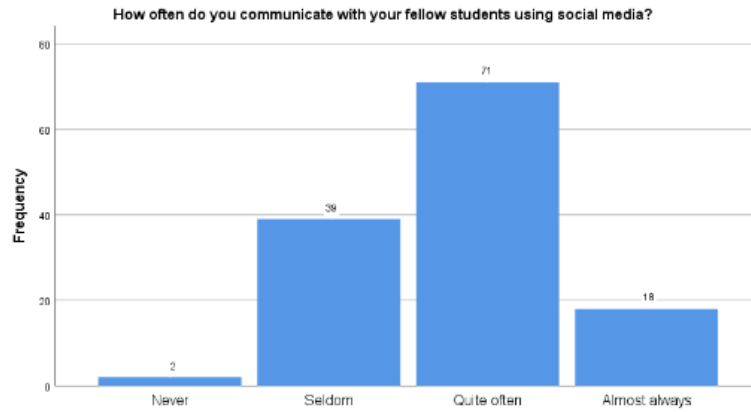


Fig. 6. Frequency of communication with fellow students using social media.

The students were also asked about the implementation and the effect of social media in education. Their responses are depicted in Fig. 7 and in Table 1.

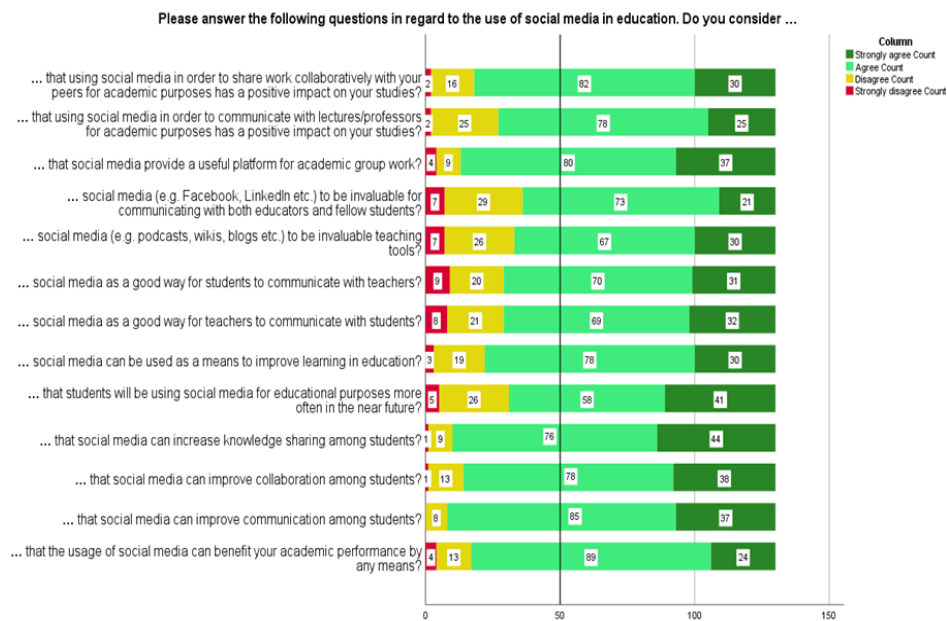


Fig. 7. Students' viewpoints regarding the use of social media in education.

Table 1. How the use of social media in education is viewed by students (scale 0-3).

Do you believe ...	Mean	Std. Dev.
... that the usage of social media can benefit your academic performance by any means?	2.02	.641
... that social media can improve communication among students?	2.22	.547
... that social media can improve collaboration among students?	2.18	.628
... that social media can increase knowledge sharing among students?	2.25	.614
... that students will be using social media for educational purposes more often in the near future?	2.04	.820
... social media can be used as a means to improve learning in education?	2.04	.687
... social media as a good way for teachers to communicate with students?	1.96	.811
... social media as a good way for students to communicate with teachers?	1.95	.819
... social media (e.g. podcasts, wikis, blogs etc.) to be invaluable teaching tools?	1.92	.803
... social media (e.g. Facebook, LinkedIn etc.) to be invaluable for communicating with both educators and fellow students?	1.83	.759
... that social media provide a useful platform for academic group work?	2.15	.676
... that using social media in order to communicate with lectures/professors for academic purposes has a positive impact on your studies?	1.97	.670

Based on their responses, the majority of students viewed the introduction and application of social media in education positively. Particularly, students regarded social media as a means that promotes and enhances group work, communication, collaboration as well as work and knowledge sharing with both fellow students and educators. In addition, they described social media as invaluable teaching tool that can improve learning and teaching activities and increase students' engagement, motivation, productivity and academic performance. Finally, they consider social media as essential for today's life (Fig. 8) and believe that social media will be more widely used in educational settings in the near future.

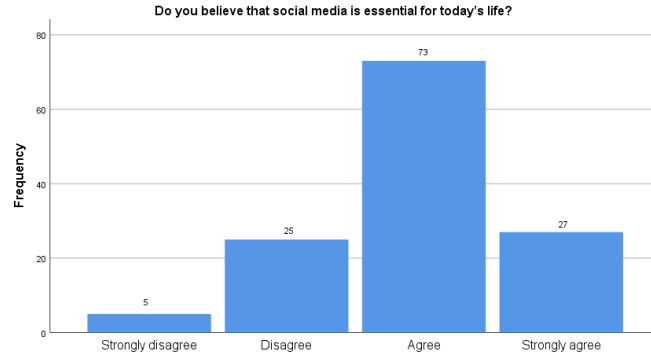


Fig. 8. Social media necessity in today's life according to students.

5 Conclusion

Utilizing social media within educational settings is becoming more and more popular. This study examined the viewpoints of higher education students regarding the integration of social media into education. Based on the results, it can be concluded that students considered social media as an invaluable educational tool that can assist learning and teaching activities when implemented in a student-centered manner. Additionally, they regarded social media as means that can enhance knowledge sharing, communication and collaboration as well as their academic performance, motivation and engagement. Moreover, it can also be inferred that firstly, students considered video-stream services significant for learning and secondly, they favored social media services and Google tools which can lead to the conclusion that students think highly of tools that promote and increase knowledge acquisition, information sharing and communication.

Taking into consideration the learning paradigm perspective, the above results and conclusions can be viewed as fruitful. Particularly, utilizing video-streaming services and content can enhance the constructivist theory which consists of cognitive and social constructivism (Confrey, 1995) and is based on Piaget's theory of cognitive development (Piaget, 1977). Furthermore, social media can also support social constructivist learning (Vygotsky, 1978) because within this context, students can act and behave in multiple ways and learn both collaboratively and individually at their own pace while communicating and interacting with others. This type of learning requires cultural and social contexts. Social media and other virtual learning environments that boost communication and sharing can foster the creation of such learning environments.

Given that the students involved came from the same country and were familiar with using digital technologies can be regarded as limitation factors to this study. Consequently, future work will focus on carrying out cross-cultural studies in order to compare and comprehend the viewpoints of students from different ethnicity, countries and backgrounds.

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