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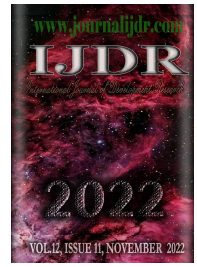
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RESEARCH ARTICLE

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## THE USE OF DIGITAL SOCIAL NETWORKS FROM THE PERSPECTIVE OF UNDERGRADUATE STUDENTS

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### ABSTRACT

Participation in digital social networks is part of the routine of many people, who seek for interaction, information, or to enjoy posts from other participants for which they nurture affinity. In this exploratory study we sought to analyze the perspective of the use of digital social networks, by undergraduate students, for personal issues and for future applications in their professional routine. Through the application of questionnaires with closed questions, information was gathered about frequency of access, activities most frequently performed, position in relation to the use of digital social networks in teaching and learning processes, and propensity to adopt the digital social network as a pedagogical resource in their professional activity. The results show the research participants, selected in a convenience sampling, present daily participation in digital social networks (95.7%), where they search and share information (68.1%) and like posts (63.8%), believe in the possibility of using digital social networks in teaching and learning processes (81.16%), and are inclined to adopt digital social networks as a pedagogical resource (79.4%). These results indicate the respondents' familiarity with digital social networks and the majority's positive attitude towards the use of digital social networks in teaching and learning processes.

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## INTRODUCTION

Currently, many authors cite that the technological resources available make it necessary for the teacher to adapt and incorporate such tools into their teaching practice (Fonsêca, 2018; Führ, 2019; Neri, 2015; de Oliveira, 2014; Schwab, 2016). As examples of these resources, we have the Digital Information and Communication Technologies and Digital Social Networks. Social networks today are part of the daily life of internet users, who use it for the discovery of new friends, new information about a certain subject, and even learning a certain subject or educational course (da Silva & Serafim, 2016). Its use in education, however, represents, according to Moran (2021), the need to adapt to new pedagogical scenarios, which may be more complex and require new skills from teachers and students. Thus, this exploratory study aims to analyze the perspective of the use of digital social networks, by undergraduate students, for personal issues and for future applications in their professional routine.

From this study we hope to start exploring the relationship between the current use of social networks and the perspective of their application by future teachers, which will allow us to verify the importance of investing in teacher training that gives due value to digital competencies and digital culture from the point of view of their pedagogical exploration. The research questions that guide this study are: (i) how do students currently use digital social networks in their daily routine; and (ii) does this form of use generate propensity or stimulus for the future use of digital social networks in pedagogical activities? In terms of methodological procedures, a questionnaire was applied, sent through the Google Forms platform, to collect information about how undergraduate students participating in the research use digital social networks in their private and school lives, to analyze the perspective of their pedagogical use when they become teachers. This study is composed of the following topics: after the introduction, concepts necessary for the understanding of the results are presented, such as technological advances in education, social

networks, and portable devices for access to digital social networks. Next, the methodological approach, the discussion of the results, and the final considerations are exposed.

**The current scenario of technological advances in education and digital social networks:** In recent years, more precisely in the last two decades, mankind has seen a great technological advance in all senses. According to the Regional Center for Studies for the Development of the Information Society in Brazil (Cetic.br), in just three months 94.2 million users used the internet, which corresponded to more than 50% of the population in 2016 for example. Today's new technologies are present in all parts and activities of our daily lives, such as: paying bills, transportation, shopping, opening bank accounts, bringing distant family members closer together, the agility to solve problems without the need to leave home, and even looking for jobs through digital platforms like LinkedIn. In short, these are examples of the benefits that technologies offer us. And although it is present in various sectors of society, it was in the field of communication that it developed the most (Rodrigues, 2015; Fonsêca, 2018).

The current technological development, with its frenetic speed, the automation of many modalities of human work, the emergence of new modes of work that, according to Schwab (2016), put pressure on various sectors of society to adapt to the frequent changes that current technological advances have promoted, as well as putting pressure on education. As an example, we can cite Education 4.0 (Führ, 2019; Rasquilha & Veras, 2019). The term seeks to define the numerous influences in the field of education that the fourth industrial revolution has caused by demanding new forms of teaching that are more aligned with the social changes brought about by current technological advances. It requires changes in teaching and learning practices and in the roles of teachers and students; students are expected to take a more active role as builders of their own knowledge, while teachers are expected to mediate this process.

In this scenario, it is expected changes in pedagogical practices that make them more consistent with the current situation, which is increasingly permeated by technological advances and, also, the same is expected from educational institutions and teachers facing the challenge of reviewing their pedagogical practices and updating themselves in face of the predominance of digital technologies of information and communication in society. According to Junior (2018), this updating includes all professionals in all spheres of education, from basic to higher education, and currently in times of pandemic and adoption of the remote learning modality, we can observe a drastic accentuation of this need for updating by educational institutions and teachers. Technology is present, and the teacher needs to adapt and incorporate it into his or her teaching practice. In times past, the simple fact of the teacher writing on the blackboard for the students to copy - a practice of constant and exhaustive rework - currently has the possibility of sharing class content more efficiently by using technological resources, such as, for example, sharing links to articles that can be read at more opportune times for students and discussed in class, maximizing the time for knowledge construction.

According to Neri (2015), these benefits are not only applicable to elementary school, but also extend to high school and college, giving students the possibility to receive the ready texts and devote more time in their reading, understanding and explanation by the teacher, instead of making handwritten copies from the blackboard or other medium. The speed with which information is produced and shared brings the need for schools to use and adapt this new era (de Oliveira, 2014; Fonsêca, 2018), but there is the perception of a mismatch between the accentuated speed of the development of pedagogical possibilities by digital technologies of information and communication, and the time that schools demand to follow it. According to Souza and Schneider (1999), the school should be consolidated in this sense, at a speed identical to that of society, that is, that schools should use the same technologies available in the market and explore these resources to the maximum in favor of

teaching in several school environments, since the use of this technology contributes to the exploration of new possibilities of knowledge construction. The authors' statement demonstrates the dilemma that education faces when facing the scenario of social changes caused by new technologies. This dilemma can be outlined as follows:

On the one hand, we need to develop more complex skills, to know how to adapt to unexpected solutions and create new solutions to new problems. This requires a new, constant, challenging, creative learning dynamic, anywhere, anytime, over an increasingly longer life span. On the other hand, we have a 19th century school stuck in its predictable, bureaucratic, industrial rites. (Moran, 2021, p. 66). When facing the current social challenges created by technological advances, especially those related to education, great difficulties are indeed encountered. If what is expected is that the contemporary school advances with respect to new forms of teaching and promotes learning beyond its striking and insistent configuration based on the nineteenth century, it is necessary to develop new skills. However, still according to Moran (2021), the school as we know it seems to be offline in an online world, a situation that demands investments that can reverse this situation. In this sense, among the challenges that education faces nowadays, is not only the fact that students have more effective, immersive and concrete contact with technological advances outside of school, which demonstrates the need to implement an infrastructure of schools that offer the technological resources necessary for its updating, also has to face, many times, bureaucratic processes arising from public policies that, although they aim at such technological upgrade end up hindering the adoption and implementation of digital information and communication technologies in schools, both from the point of view of infrastructure and teacher training (GGI, 2019a; Kenski, 2015 as cited in Ludovico *et al.*, 2020; Nadal *et al.*, 2016).

The implementation of coherent and competent infrastructure to support the use of digital technologies of information and communication in schools, by itself, does not guarantee the technological upgrading of schools, there is the need to promote teacher training for the conscious pedagogical use of these resources. For Simões (2016), this preparation of teachers could occur during their training, either in initial training via internships or according to the possibilities to be offered by higher education institutions during the courses they offer focused on education, such as undergraduate degrees. It is understood that this basic knowledge to deal with digital technologies in teaching is extremely important, because the future teacher with such training, as Moran (2021) states, will be able to develop and diversify the teaching and learning process in a more efficient and competent way, contributing to the development of students' autonomy. Also, according to Moran (2007), only by investing in teacher training to prepare them to master communication processes, pedagogical relations, and technologies can the reality of education be improved. Only then, the reality of education will be able to advance in the more competent use of digital information and communication technologies with greater gains in terms of the teaching-learning process. With this perspective, the appropriation of digital information and communication technologies by teachers requires training processes that help them reflect on how to use them pedagogically, extracting the best of them to promote teaching-learning processes.

Among the resources of the digital information and communication technologies are the Digital Social Networks. According to Recuero (2009), digital social networks are built by joining social actors (profiles created on the networks) and their connections (interactions maintained by the platforms). For Boyd and Ellison (2007) digital social networks are like mediated public spaces, and have the following characteristics: persistence (what has been published in cyberspace remains there); searchability (it allows social actors to search and be tracked); replicability (what is published can be replicated by another actor at any time); and invisible audiences (there are audiences that are invisible, even though they participate in the interactions). In education, the use of networks can make the

teaching and learning process dynamic and motivating, because it expands the possibilities of communication and access to information (Kenski, 2004). On the other hand, factors such as technical difficulties with connections, applications and sites, or the excess of information (infoglut), or even methodological limitations, such as communication anxiety of beginner users and the dispersion of the student's attention due to the possibility of accessing other content on the Internet or on the network itself, represent disadvantages of the use of DIGITAL SOCIAL NETWORKS in education (Harasim *et al.*, 2005). Furthermore, as Brennand (2006) cites, the use of digital social networks and other digital technologies changes the cognitive capacity of their users. The access to databases, digital modeling possibilities, and simulations cause changes, mainly, in aspects such as reasoning, memory, and abstraction capacity of mental representations. These changes make more complex the pedagogical transposition from the method based on blackboard, chalk, and textbooks, to the method that incorporates digital information and communication technologies. To circumvent the disadvantages mentioned above, digital social networks, when part of effective pedagogical planning, have their potential contribution to communication and education increased when associated with portable devices and more efficient applications. In what follows we will discuss the possibility of using digital social networks in education, and the need for training that contributes to their pedagogical use from the beginning of teacher training.

**Education, portable devices, and digital social networks:** It is currently impossible to dissociate digital social networks from mobile devices, in particular smartphones, the main agents of the profusion of communication software that support digital social networks. Their presence in contemporary society has become common in the daily lives of people of various age groups, ranging from children to the elderly. However, according to Alméri (2013), it is the young audience that interacts most in cyberspace using digital social networks and they do so in the most varied social spaces, among them public and private schools. The presence of these mobile devices has contributed greatly to the coexistence with social media through specific software, thus favoring their establishment in people's daily lives. According to data from IBGE (2021) 82.7% of Brazilian households use the Internet, and mobile phones are the most used to access it. The prevalence of the use of cell phones (smartphones) still according to the IBGE (2021), presents a growth trend in relation to other types of electronic devices, a scenario that defines this type of device as predominant for Internet access in Brazil. The availability of these devices, the ease of use and the issue of mobility are factors that contribute to such growth, considering that, by means of applications available for mobile devices it is possible to send files, photos, images, exchange messages and communication can take place more easily. Such use, according to Fonsêca (2018), has enabled the emergence and increase in the number of applications dedicated to social media that are available in the palm of your hand, anywhere and at any time. The smartphone is where everything happens. We look at its screen all the time, we type, search, share, play, buy, laugh, relate, and learn. It is the device we carry everywhere, our inseparable companion, the small screen that enlarges, that integrates thousands of applications and solutions that were once loose (Moran, 2021, p. 64). The use of portable devices and social media applications are so integrated into people's daily lives that they are being adopted by people of all social classes, cultures, and ages. It is these portable devices (smartphones) present in society in an accessible way for most of the population that structure the basis of the use of social media that have emerged and gained popularity in recent years and that, according to Vermelho, Velho, Bonkovoski and Pirola (2014), have expanded access to information by people previously excluded from this access with traditional media that did not have the resources of digital technologies of information and communication.

In this scenario in which the use of smartphones predominates, what stands out, according to a survey conducted by CGI (2019b), is the fact of the increasing use of mobile devices to access digital social networks as the predominant activity declared by 92% of users

participating in the survey. An expressive number that demonstrates the undeniable presence of digital social networks in all socioeconomic classes and in the most varied sectors of society, including schools. In this sense, the survey on the use of information and communication technologies in Brazilian schools (CGI, 2019a) analyzes the use of social media by urban school students for schoolwork between the years 2015 and 2019, where the following digital social networks were highlighted: WhatsApp, Facebook, Instagram, Snapchat, Twitter. The term "Some other social network" was used to encompass software or platforms other than those mentioned above. The mentioned research presents a broad spectrum, although it focuses more objectively on five digital social networks that presented more expressive results with emphasis on the predominance of WhatsApp use. According to the survey reported earlier (CGI, 2019a), regarding the use of digital social networks for educational and private purposes by students, a huge discrepancy is observed, with the use for personal matters being much higher than their use for schoolwork, a fact that draws attention to the fact that technologies, according to Moran (2021), are more present in the lives of students outside of school. The same discrepancy in the use of digital social networks for personal and educational purposes can also be observed among teachers:

Teachers' activities also indicate that they are active users of technology. Using applications to send messages (99%), reading online newspapers, news, or magazines (97%), consuming videos, programs, movies, or series over the Internet (95%), sharing online content such as texts, images, or videos (91%), and using social networks (88%) were among the most common activities performed by Internet users. Except for searching for information about undergraduate, extension or graduate courses, which showed differences between teachers who teach in public (69%) and private schools (86%), net use habits were quite similar among teachers. Although the data show an intense use of technologies by teachers in general activities, the use of these resources with students in teaching and learning activities presented much lower proportions. The availability of connectivity infrastructure in schools and the lack of training courses are factors that may influence the use teachers make of these resources in their professional activities (CGI, 2019<sup>a</sup>, p. 87, emphasis added). The discrepancy between the use of digital social networks for schoolwork and personal matters is a reality for both students and teachers and demonstrates how much the school, as Moran (2021) states, seems to be offline in an online world. A situation that tends to keep the school in a precarious situation regarding the use of digital information and communication technologies, not only because of the lack of infrastructure pointed out by the ICT Education survey (CGI, 2019a), but also by the perception of teachers about the need for specific training for the pedagogical use of digital information and communication technology resources in the classroom.

The lack of a specific course on the use of technologies in teaching and learning activities was cited by 59% of urban public school teachers and by 29% of private school teachers as a difficulty in the pedagogical use of these resources with students. In 2019, only 33% of teachers had taken a continuing education course on the topic. On the other hand, a large portion of teachers sought materials and information on the pedagogical use of these resources on their own initiative: between 2015 and 2019, the use of online videos and tutorials to update themselves on the implementation of pedagogical activities with the use of technologies increased from 59% to 81% (CGI, 2019a, p. 26). Although, in the research mentioned above, it is pointed out by teachers the scarcity of specific courses on the pedagogical use of digital technologies of information and communication, the interest in seeking materials and information to implement pedagogical activities with the use of technologies in the classroom demonstrates the tendency of change of pedagogical praxis in the new current scenario with the strong influence of digital technologies of information and communication on education. This situation, despite all the difficulties schools have with the pedagogical use of digital information and communication technologies, indicates, according to Moran (2021), the need for changes in the approach of

the teaching-learning process, by schools, in a world permeated by technologies that requires the reformulation of the role of teachers who become competent guides and mentors who effectively contribute to the professional and life projects of their students. This transformation of the teacher's role is extremely important when considering the need for the school to adapt to the current social scenario strongly influenced by information and communication digital technologies and their accelerated evolution. In this sense, as well as the research on the use of information and communication technologies in Brazilian schools (CGI, 2019a) that focuses on aspects of the use of digital social networks for school purposes, they survey the situation with teachers already trained and working as education professionals, an important indicator to know about the situation of the incorporation of digital social networks in the classroom, although this is not the only indicator of changes in teaching praxis. It is understood that the lack of training for pedagogical use of digital social networks not only affects teachers already trained and working in education, but also future teachers who are preparing for the labor market in undergraduate courses. In this sense, this research analyzes the perspective of use of DIGITAL SOCIAL NETWORKS resources from the experience that these students obtain during their graduation.

## MATERIALS AND METHODS

This research is an exploratory study as a piece of research linked to the Project entitled "The Digital Social Networks in Times of Education 4.0: Potentialities for Initial and Continuing Teacher Education", developed in the scope of the Research Group on Education, Technology, and Digital Culture - GRUPETeC (CNPq/UNINOVE). The option for the exploratory research modality occurs due to the need to analyze, initially, if the student experience with the pedagogical use of digital social networks in undergraduate courses arouses in students the interest to use this type of resources in the future in their classes when they are working as teachers. Thus, we proceeded to build the basis for broader research that, according to Gil (2008), will lead to greater clarification of the research problem.

As this is exploratory research, we chose convenience sampling, as it is more appropriate for this type of research, as stated by Gil (2008). For data collection a questionnaire was used, which, according to Lakatos and Marconi (2003), enables data collection in an economical and agile manner, with easy distribution and return. Thus, a questionnaire via Google Forms was used, structured with an informed consent form and objective and open-ended questions. The questions were based on the CGI (2019a) survey questionnaire.

Although the questionnaire has objective and dissopen-ended questions, we chose, at this time, to work with the results of the objective questions in view of the time available for the proper analysis of the data obtained and because it is an exploratory study, we understand that the objective questions provide sufficient data to portray the prevalence and perspective of teaching use by undergraduate students.

The request to participate in the survey was disseminated through posts on the most used RDS and by sending an e-mail to students in the second semester of 2020. The first part was dedicated to characterizing the participants with respect to gender, age, academic status, affiliation to a private or public educational institution, type of undergraduate course, and employment or work relationship. The second part sought to question the participants about the use of digital social networks, privately, the types of software used, places and frequency of use, and frequent actions when using social networks. The digital social networks listed in the questionnaire were based on the studies of the CGI research (2019a) and added some that emerged from suggestions of participants in the pre-test of the questionnaire. The third part addressed the issue of the perspective of the future use of digital social networks in teaching and included questions about the possibility of articulation of digital social networks with the teaching and learning process, with teacher training, and if participants consider the possibility of using social networks in their

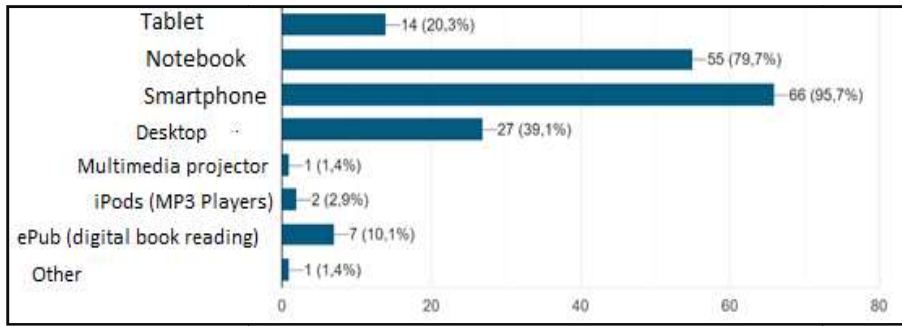
practice when they are working in education. The answers to the objective questions were tabulated using the resource available in Google Forms that automatically generates spreadsheets and graphs from the questionnaires answered by the research participants. The data were analyzed based on the theoretical framework and comparison with the results of CGI (2019a).

## RESULTS AND DISCUSSION

The following presents the data collected and the discussion of the results obtained.

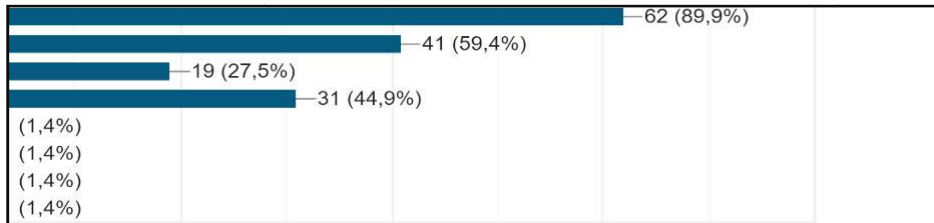
**Characterization of the sample:** Of the 69 survey participants, 92.8% called themselves as women and 7.2% as men. Of those, 95.7% were undergraduate students, while 4.3% were graduates. Regarding the age range, of the 69 participants, 42% declared themselves to be in the 20-30 age range; 21.7% in the 16-20 age range; 20.3% in the 30-40 age range; 13% in the 40-50 age range; and 3% were over the age of 50. Of the total respondents, 93.9% were from a private university located in the city of São Paulo, and the rest (6.1%) indicated ties with other institutions. 89.9% of the participants were taking a degree course and only 10.1% were taking a bachelor's course. Regarding the undergraduate courses attended, the courses mentioned were Pedagogy and Languages - English. It was also observed that, when the data were collected, 52.2% of the participants were connected to the labor market (in activities related or not to teaching), while 47.8% were not. Regarding the use of devices used to access digital social networks, the predominance of smartphones is evident, even considering that the participants have declared the use of more than one device, as shown in Graph 1. The characterization of the audience of the research sample shows the predominance of people who attend or have attended undergraduate courses, a characteristic that demonstrates the relevance of the sample for this research, since they will become future teachers who may make pedagogical use of digital social networks and, consequently, will influence their future students regarding the school use of digital social networks. It was also observed the preference for the use of smartphones by the participants in a much more expressive way in relation to other devices such as Tablets, Notebooks, Computers (Desktops), among others, data that corresponds to what is indicated by other surveys previously mentioned (IBGE, 2021; CGI, 2019a; CGI, 2019b). A striking and expressive characteristic regarding the use of digital social networks by people in general and with a very large influence on education, from the outside, as pointed out by Moran (2021) situation that identifies the hybrid relationship between the physical and digital planes evidenced in the personal use that people make of digital social networks in their daily lives. The importance of observing the personal use of digital social networks is the starting point for investigating their use in specific areas as in the case of education, so we proceed next.

**Use of digital social networks for personal purposes:** According to IBGE (2019) 82.7% of households in Brazil used the internet in 2019, this percentage demonstrates the broad access of the population from their homes, with the smartphone being the most used device for internet access from households corresponding to 99.5%. This scenario of Internet use corresponds to the preference for access from home, which we could also contact when questioning, in this research, about the preferred place of use of digital social networks. The prevalence of home use of digital social networks presented in our research may be directly related to the availability of connection at home, although its use in other spaces is accounted for interchangeably, it is understood that the growth of home availability of Internet connection is the factor that directly influences this result. The use in the university environment (47.8%) is a data that demonstrates the presence of digital social networks in an educational environment. As Moran (2019) points out, there is no way for schools to be oblivious to the technological advances of digital information and communication technologies since these are present in the daily lives of students.



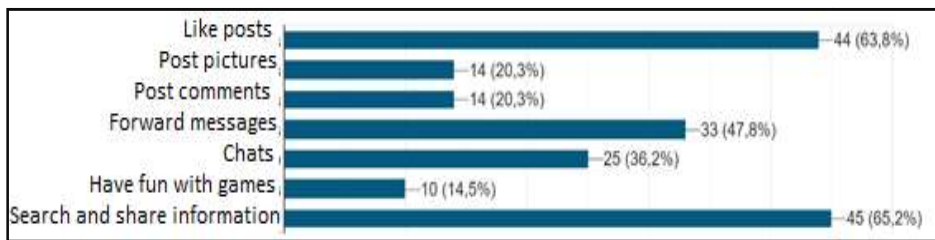
Source: Authorship of the Researchers.

Graph 1. Devices for accessing digital social networks



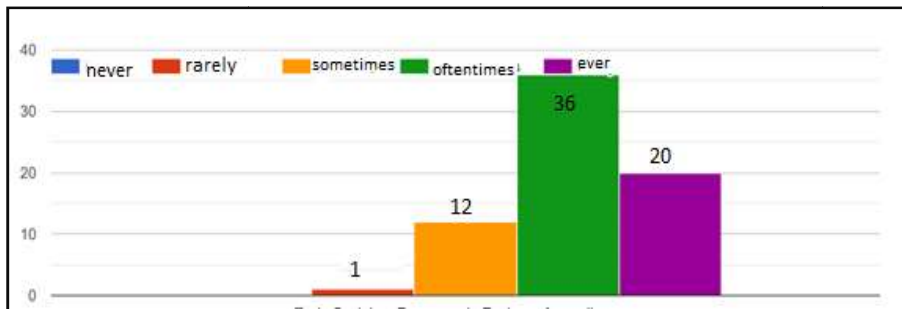
Source: Authorship of the Researchers.

Graph 2. Digital social networks used by the research participants



Source: Authorship of the Researchers.

Graph 3. The frequency distribution of the options



Source: Researchers' authorship.

Graph 4. Belief in the use of digital social networks in teaching and learning processes

The presence of digital social networks in the daily lives of the participants of this research can be observed from the finding that 100% of the respondents of this research declare to use digital social networks, use declared regardless of age, gender, profession, or area of training. In this sense, it is observed the generalized use of digital social networks by the respondents, differing only with respect to preference for certain digital social network platforms, as shown in Graph 2. Graph 2 presents the associated use of the platforms by the respondents, being WhatsApp the network that presents the highest percentage of declared use, 98.6%. Such result is aligned with the results found in other surveys (Santos & Lopes, 2013; CGI, 2019a; CGI 2019b) about the use of this digital social network platform more frequently compared to others. Regarding the frequency of access, most participants (95.7%) access digital social networks daily. Access to social networks is becoming increasingly frequent, since it can occur via cell phone, a mobile device that is always in hand, enabling this frequency of access.

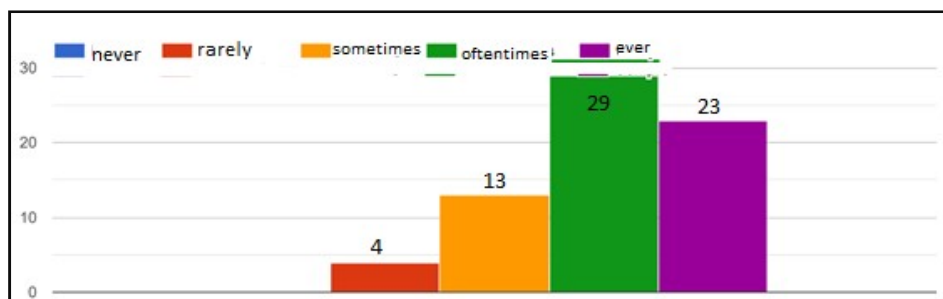
As for the most frequent activities when accessing social networks mentioned by the respondents, it was noted that the research participants like posts (63.8%), forward messages (47.8%), search and share specific messages (65.2%). Graph 3 below illustrates the frequency distribution of the options. The most frequently performed activity (information search and sharing), in a way, has an informative and collaborative nature, aligning itself with possible didactic activities, as does the second most cited access location, in this case the university.

**Perspective on future use of social media in teaching/teacher training:** The responses from the third part of the questionnaire signal that, as raised in the CGI (2019a) survey, the percentage of participants who believe (options 'often' and 'always') in the use of digital social media in teaching and learning processes (56/69 or 81.16%) is higher than the percentage of participants who do not believe. Graph 4 below illustrates the frequency distribution of the



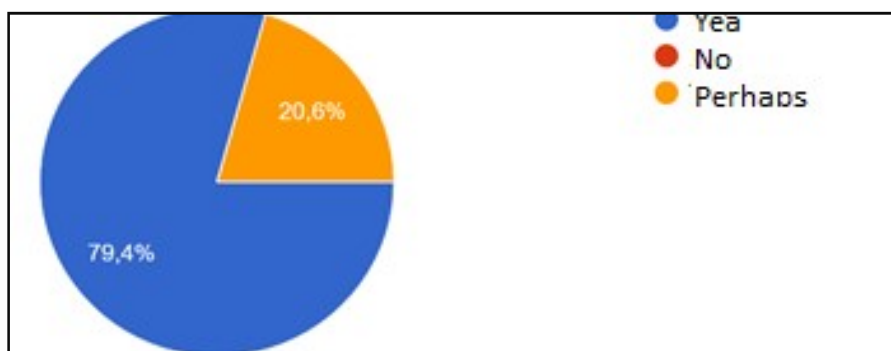
responses. Such result indicates positive attitude of most of the participants towards the use of digital social media in teaching and learning processes. Regarding the use of digital social networks in teacher education, the percentage of participants who believe in the use was 75.36% (52/69). Such a value indicates that, as in the CGI (2019a) survey, participants show a tendency to change and accept the use of digital information and communication technologies in their training processes. Graph 5 below illustrates how the responses are distributed among the options. When asked about the possibility of using digital social networks in their own teaching activities, 79.4% stated that they consider the possibility, and 20.6% stated that they might consider it. There were no participants who declared not to consider the possibility of use, indicating a reasonable acceptance of what is proposed by Moran (2021), when he suggests the need for changes in the way of approaching the teaching and learning process and the reformulation of the role of teachers. One can cite as a potential cause for the reduction of propensity the fear that, due to methodological limitations, the student accesses content that is not linked to that studied in the classroom (da Silva & Serafim, 2016), or the technical limitations, such as lack of internet access or absence of device for access (Harasim *et al.*, 2005). The frequency distribution of the answers is shown in Graph 6.

digital social networks were WhatsApp, Instagram and Youtube. In them, access with daily frequency is marked by activities such as searching and sharing specific information and liking posts. The above results prove the familiarity of the participants with digital social networks, which would facilitate its application as a teaching resource, corroborating the arguments of Kenski (2004). Regarding the second question, most of the research participants (81.16%) believe in the possibility of using digital social networks in teaching and learning processes, as well as in teacher training (75.36%), and are likely to adopt digital social networks as a pedagogical resource (79.4%). these results indicate familiarity of the respondents with digital social networks and positive attitude of the majority towards the use of digital social networks in teaching and learning processes. Thus, we can consider, from the research results, that by providing horizontal and non-hierarchical relationships, social networks present themselves as an attractive environment for many people and can be considered as an important pedagogical resource. However, the limitations presented in the theoretical framework (Brennand, 2006; Harasim *et al.*, 2005; Moran, 2021) persist, so this study highlights the importance of investment in teacher training that gives due value to digital skills and digital culture for future pedagogical applications.



Source: Researchers' authorship.

Graph 5. Belief in the use of digital social media in teacher education



Source: Authorship of the Researchers.

Graph 6. Propensity to use digital social networks in one's own teaching activity

In summary, the results of the questions related to the research participant's position on the use of digital social networks in teaching and learning processes show that they have a positive attitude towards this issue, and that most of them consider the possibility of using digital social networks in the future in their professional activity. Thus, it would be necessary to overcome the limitations of infrastructure and teacher training (GGI, 2019a; Kenski, 2015 as cited in Ludovico *et al.* 2020; Nadal *et al.*, 2016) for an effective use of digital social networks as pedagogical resources.

**Acknowledgements:** As mentioned earlier in the introduction, the research questions that guided this study were: (i) how do students currently use digital social networks in their daily routine? and (ii) does this form of use generate propensity or stimulus for future use of digital social networks in pedagogical activities?. Answering the first question, we found that most research participants have smartphones as their access device, where they access digital social networks, mostly in the home or university environment, and the most accessed

To transform an offline school into an online school (Moran, 2021), we must necessarily go through teacher training that provides digital skills, the creation of appropriate methodologies, and the installation of infrastructure compatible with the new reality offered by digital information and communication technologies and digital social networks. Regarding the limitations of the study, we can mention the type of sampling adopted, which, being non-probabilistic, does not allow statistical inferences. Therefore, the percentages cannot be generalized to the population of Pedagogy and Language Arts students from other educational institutions. The results presented here are limited to the 69 participants of this research and the educational institutions to which they are connected. As a suggestion for further research to continue studies on the subject, we suggest a study addressing ways to overcome the methodological and infrastructural limitations regarding the use of digital social networks in teaching and learning processes, already carried out in educational institutions in Brazil.

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