

Social Networks and Their Impact on Higher Education

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Abstract

Social network platforms and technology apps for education have become essential in all educational environments and have acquired significant importance in high-education contexts due to their ability to encourage students' participation and strengthen ties within the academic community, institutional communication, and community participation, helping to enrich the educational experience, thus allowing greater dissemination and accessibility to information. The study carried out a descriptive approach, starting from observing and applying a survey to students, generating quantitative and qualitative research to obtain a deeper and more complete understanding. This research aims to determine the impact of social networks on higher education. For this purpose, 650 graduate students of the Pontificia Universidad Católica del Ecuador – located in Manabí, were surveyed using observation and virtual surveys. The results showed that social media significantly influence the daily lives of students (76%). Regarding the educational use of digital communication platforms, they are widely used for academic tasks (54%) and the exchange of educational links (30%). WhatsApp (28%) and Facebook (25%) were the most used platforms. These tools offer advantages such as access to educational resources and facilitate collaborative learning; it is necessary to mention that these platforms also present challenges such as distraction and access to unverified information, for which it is necessary to address these challenges and maximize the benefits of social networks in higher education. Social networks have a positive impact because they facilitate communication and allow access to educational resources, which contribute to academic success and personal growth of students, positively affecting academic performance.

Keywords: technology, education, social media, communication impact, digital platform

Introduction

Social networks have undergone an evolution in the last decade, becoming a technological contribution in the daily life of millions of people around the world, enriching and enhancing the process of academic training in educational environments, taking into account the social panorama created by the digital revolution of the Internet and the proliferation of different types of social networks and virtual communities. (Limas & Vargas, 2020)

These digital instruments are continuously used to obtain news, participate in purchases and sales through various information, which is why it is increasingly common to buy a product and obtain information and even educational information. The daily use of these technologies has influenced many areas of society, causing changes in the lifestyles of human beings, the ways of interacting and education as a social discipline cannot escape the influence of these technologies and can even take advantage of them when their benefits and potential are clear. (Aguaded & Vizcaíno, 2020)

Social networks and mobile applications in higher education are an opportunity to promote and enrich academic activities, but it is also significant to highlight the challenges and discomforts that can affect the different participants in the educational process through their use.

The main benefits of social media and mobile applications in education are the ability to prepare documents, strengthen relationships with teams and share information online, it is important to mention that if they are not used well they can generate a negative impact on education, such as losing privacy between personal life and academic activities. (Cabero & Palacios, 2020)

Digital interaction platforms are presented as a unique mechanism to put teachers and students in contact, they are especially suitable for the educational field, since they can be used for different purposes depending on educational needs, in addition it is the teacher and the pedagogical process that define the social objects around which the network is developed. (Lilia, 2016)

The use of social networks opens up different options for university students and adds a new dimension to the teaching-learning process in which new knowledge is generated. Online teaching services are growing at an incredible rate and this is mainly due to two factors, such as: the increased availability of training materials and easier access to the educational market. (Flores, Fernández, & Vásquez, 2019)

Digital social communication platforms allow people to create public or semi-public profiles, clarify contact lists, consult and cross-reference lists of connections, understood as a web service that allows within the same system, to exchange all kinds of data and information in multiple formats (audio, text, video) and with fewer restrictions than any other medium. such as email whose capacity is limited. (Hoyos, 2016)

The use of online communication platforms has become a tool for the use of face that allow for joint learning and provide spaces for the exchange of information that encourage collaboration; It can be said that they are completely integrated into the life of the human being, they can express themselves and develop study or personal life activities such as interacting with friends, classmates, teachers, family members, thus providing them with educational, social and entertainment opportunities. (Islas & Carranza, 2011)

In universities, it is common to see students using mobile phones, tablets and laptops in classrooms, hallways, etc. Where they connect to social networks to find scientific information, news, videos, entertainment or establish communication through chats with different people of common interests in different parts of the world. It should be noted that caution is required when using the internet (Mendoza, 2018) and find false information.

The use of technologies in universities is not only a fact, but also a challenge for students and teachers, because teachers lose the prominence of their classes and students begin to get more involved with virtual tools, thanks to the various didactic programs, students can choose to take online courses, thus providing new opportunities for participation in the classroom, allowing them to become more autonomous students in their learning process. (Flores, Fernández, & Vásquez, 2019)

Social platforms occupy an important place in people's daily use, so they can be defined as a means of information, learning, recreation and communication. (Guaña, Quinatoa, & Larrea, 2018) They are considered important for integrating knowledge and identifying types of teaching and learning such as: Active learning based on theoretical facts that are based on real experience, that is, experience is analyzed from different points of view.

Materials and methods

To carry out this study, the deductive method was used, which consists of establishing logical connections and generating knowledge based on general principles and empirical evidence specific to the field studied; in addition, the descriptive method was used, which starts from the observation to the application of a survey to the postgraduate students of the Pontificia Universidad Católica del Ecuador-Sede Manabí; The qualitative-quantitative method allowed individual experiences to be obtained through the qualitative method, while the quantitative data offer a broader view, and the combination of both approaches enriches the research, allowing a more complete understanding of the impact of social networks on higher education. (Correa, Llumiquinga, Lascano, & Miranda, 2022)

The study population is composed of 650 students from the Graduate Area of the Pontificia Universidad Católica del Ecuador-Manabí Campus, for which the probabilistic sampling method was used through the use of the finite population formula, using equation 1 to obtain the sample. (Aguilar, 2005)

The techniques used in the research to collect information from students in the graduate area were observation, surveys and different search tools such as bibliographic review and synthesis; the survey was applied in virtual mode, which was carried out through a questionnaire carried out in the Google Forms form, for data processing an information collection matrix was made in the Excel computer program.

Analysis and discussion of the results

In the era of digital interconnectivity in which we live, digital social communication platforms have become an integral part of the lives of human beings that have transformed the way we communicate, interact and search for information. These are not only platforms for entertainment, but also for education, activism and professional development. (Román, 2017) (Porcelli, 2020) Figure 1 shows the top social media platforms that have left a significant mark on the contemporary digital landscape.

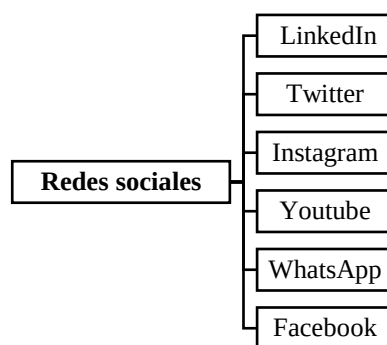


Figure 1
Social Media

Note. The figure represents some of the digital platforms of social communication.

Source: Authors. In original language Spanish

- **LinkedIn:** It is distinguished by its specific focus on facilitating connections and opportunities for professionals from various sectors, its objective lies in helping professionals to find collaborators, establish business relationships, and expand their networks of contacts effectively. (Gonzalo, Laaser, & Toloza, 2012)
- **Twitter:** It is used in many countries as tools in the educational field, it generally focuses on exploring the profiles of users of pedagogical areas, habits and routines, that is, it adjusts to the needs expressed by its users. In addition, it is a social network that is not only limited to typical higher education students, but also researchers in adult instruction or Andragogy, graduate students or those who are carrying out their teaching practice as part of their training to become future educators. (López & Tascón, 2013)
- **Instagram:** It is an educational tool that facilitates communication between students and teachers in an accessible way outside of class hours and the traditional classroom environment, because it allows the creation and sharing of ideas with content relevant to the context. (Roa, 2021)
- **Youtube:** It is an online platform that makes it easy for users to upload and distribute videos, including options for interactions such as comments, ratings, and a rudimentary social structure. However, its main function is to facilitate the dissemination of videos on various websites, thus complementing the relationships interconnected by other social networks. (Gonzalo, Laaser, & Toloza, 2012)
- **WhatsApp:** is an application that allows students and families to organize themselves independently and autonomously, that is, this App allows the formation of work teams, encourages interaction through its platform, achieves educational objectives and at the same time strengthens interpersonal relationships. (Cervantes & Alvites, 2021)
- **Facebook:** It offers an educational and collaborative environment that facilitates the development of activities both inside and outside the classroom, providing a variety of resources and applications aimed at encouraging interaction, the ability to respond and communicate quickly and eloquently, which allows them to establish learning networks and enhance their educational growth. (Gómez, García, & Delgado, 2018)

At the university level, the strategic implementation of digital platforms presents an exciting opportunity to enhance the educational experience, encourage student participation, and strengthen ties within the academic community. These social communication platforms have the potential to transform the educational experience and promote greater student engagement by fostering communication, collaboration, and access to pedagogical resources, allowing them to play a crucial role in strengthening the academic community. However, it is important to address challenges related to privacy, security, and fairness to ensure that they are used effectively and responsibly. (Macías & Bastidas, 2019) (Cruz, Pozo, Aushay, & Arias, 2018)

This article explores the impacts associated with the integration of social networks in the university environment, a survey was applied in which a sample of graduate students of the Pontificia Universidad Católica del Ecuador-Sede Manabí was taken. To know the size of the population, equation 1 was used, used for the calculation of a finite population:

$$n = \frac{N}{1 + \frac{e^2(N-1)}{Z^2 pq}} \quad (1)$$

Where:

n → Tamaño de la muestra que desea conocer.

N → Tamaño conocido de la población. = 650

Z → Nivel de confianza = 95%

pq → Varianza de la población o variabilidad del fenómeno estudiado.

e → Índice de precisión o error muestral. = 5%

Through the results obtained in the study from the survey carried out on graduate students, only the results referring to the objective set in this research are shown below. Initially, a sample of 243 individuals was used; In relation to the gender information aspect, it was determined that of the survey participants, 64% were female and 36% male.

The influence of social networks on daily life was investigated, the results are shown in Figure 2.

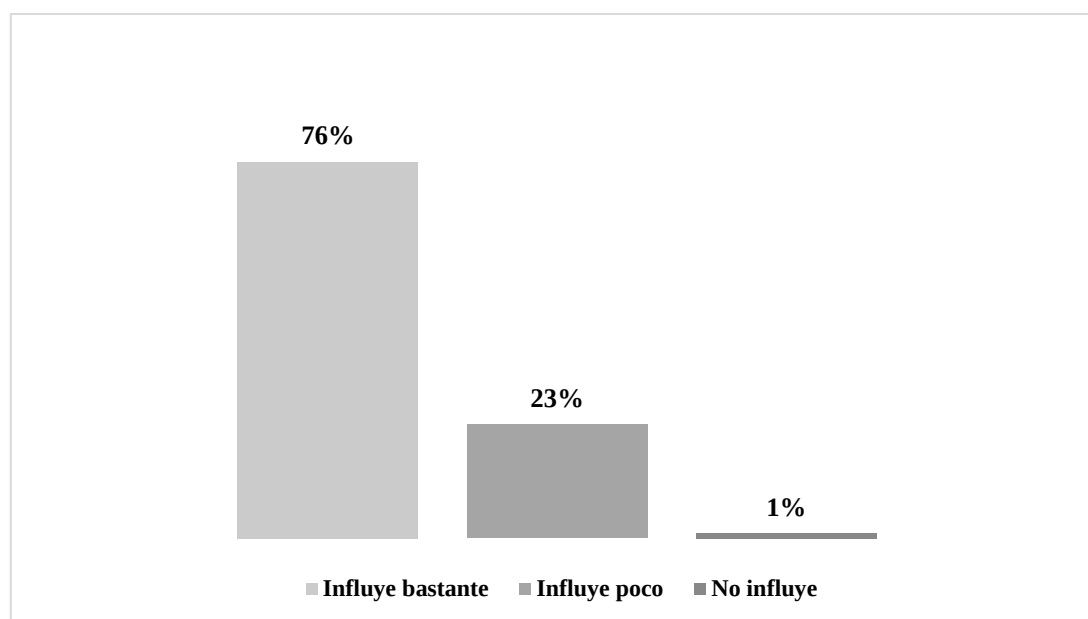


Figure 2

Social Media Influence

Note. The figure illustrates the population's perception of the influence of social networks on daily life.

Source: Authors. In original language Spanish

Shown that 76% of the population mentioned that social networks do have an influence, 23% indicate that it has little influence and 1% mention that it does not influence the In everyday life, it is worth mentioning that social communication platforms have become essential for young students, whose daily activities are closely linked to the world around them. (Velasquí, 2019)

Today's society, characterized by technology, information and communication, presents both challenges and possibilities since it is promoting excessive consumption of them. Communication facilitated by social media removes the barrier of physical distance and reduces face-to-face interaction between people, through a simple call using platforms such as Facebook, Instagram, WhatsApp, Telegram (Morillas & Martínez, 2013), being possible to bring together hundreds or thousands of individuals who have never met in person before. (Castillejos, 2022)

These platforms are abundant and widely used, constituting the new channels of communication, which are formed by individuals who share ties, whether of friendship, family or interests of common activities. (Flores A. , 2017)

The use of social networks in education was investigated, and the findings are presented in Figure 3.

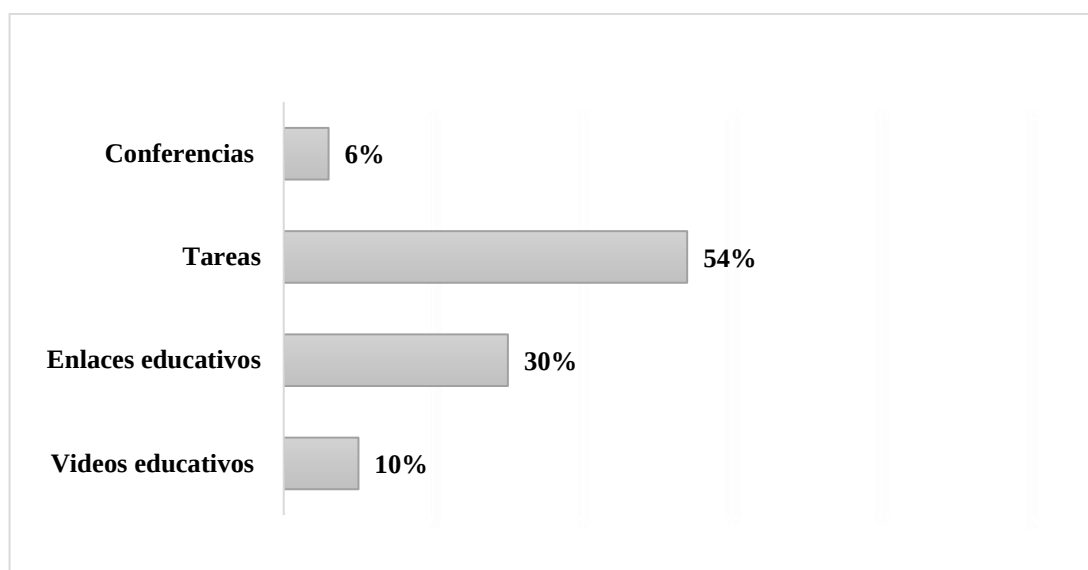


Figure 3

Use of social networks in education

Note. The figure presents the use of social media in the educational field, as expressed by the respondents.

Source: Authors. In original language Spanish

It is relevant to note that, according to the respondents, social media are mostly used in the educational field to carry out tasks, which represents 54%, indicating that these platforms are being used effectively as educational support tools. However, 30% of them are also used for the sharing of educational links, highlighting their usefulness as channels for the dissemination and exchange of content relevant to learning. This indicates a trend towards the use of virtual media as spaces for collaboration and access to online pedagogical resources. (Sunkel & Trucco, 2012)

However, it is important to indicate the possible risks and effects derived from it of the use of the Internet and the activities carried out through this medium in the educational field, among these challenges are distraction, access to unverified information and the possibility of exposure to inappropriate content. In addition, it is necessary to assess whether time spent on digital media for educational activities is negatively affecting other areas of student development, such as face-to-face social interaction or time spent on independent study. (Villa, Mesa, Garzón, & Urueña, 2023) (Luque & Fernández, 2020)

Today, it is used for a long time in digital interaction, according to a study conducted by , shows that the rate of internet use between (Arcesio, Bolívar, & Francisca, 2016) young people 19 to 24 years old is specifically very high. Most students report that they use these digital platforms excessively and without a clear order, resulting in is that there is a notable loss of time that could be used for study and other academic activities, that is, this constant distraction has a negative impact on their ability to concentrate and academic performance. (Espinoza, 2023)

Figure 4 summarizes the most used social networks as an educational medium.

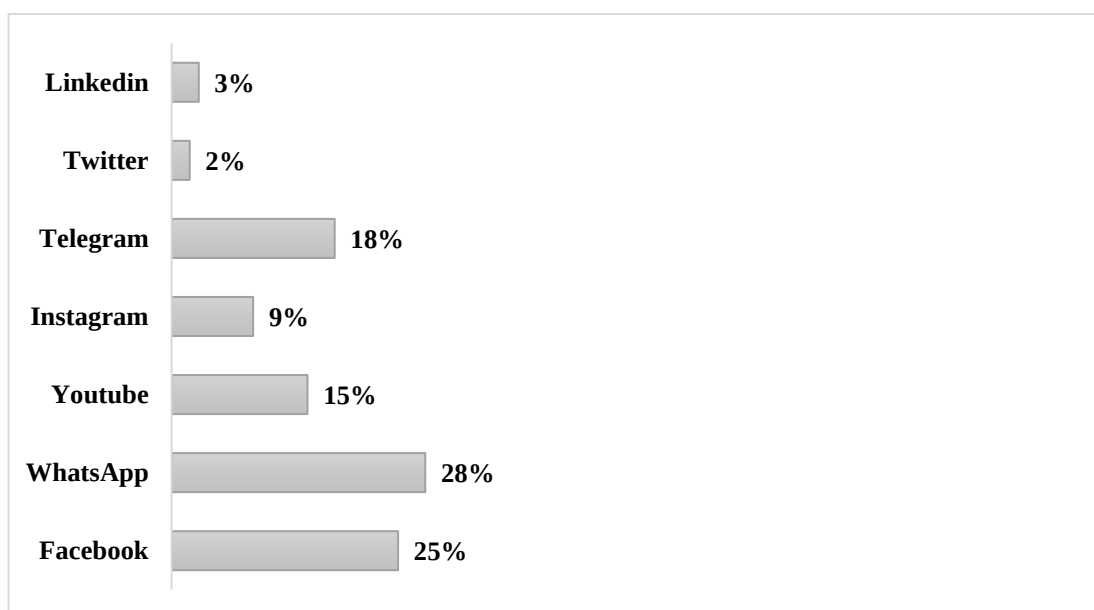


Figure 4

Social network most used as an educational medium

Note. The figure illustrates the use of different social media platforms among college students.

Source: Authors. In original language Spanish

Within them, it can be seen that WhatsApp represents (28%), Facebook (25%), followed by Telegram (18%); with respect to the least used are YouTube (15%), Instagram (9%), LinkedIn (3%) and other networks such as Twitter (2%).

Facebook, YouTube and WhatsApp are the main digital platforms worldwide in terms of use, among these, Facebook and WhatsApp stand out as the most used thanks to its high level of interaction and entertainment capacity. However, in Latin America, YouTube emerges as the most active platform. (Espinell, Hernández, & Prada, 2021)

The use of these Platforms is on the rise, and digital natives are now increasingly inclined to use new information and communication technologies to study, exchange ideas and collaborate with each other. It is essential to understand how these technological platforms impact their learning process and develop effective educational strategies to make the most of their potential. However, it is important to mention that through these social media the educational system has the ability to offer quick and easy access to a wide range of pedagogical resources, from study materials to instructional videos, these allow students to complement their learning in a self-taught and enriching way for the teaching and learning process. leading the student to independence in their formation of knowledge. (Chávez & Gutiérrez, 2016) (Garrigós, Mazón, Saquete, Puchol, & Moreda, 2010)

It is worth mentioning that they play a fundamental role in the training field by facilitating communication, encouraging collaborative learning, providing access to educational resources and promoting flexibility in the teaching and learning process. Their effective integration into educational environments can significantly improve the quality and effectiveness of education, preparing students to face the challenges of the 21st century. (Revelo, Collazos, & Jiménez, 2018)

Figure 5 details the time spent on academic work on social networks that involve students.

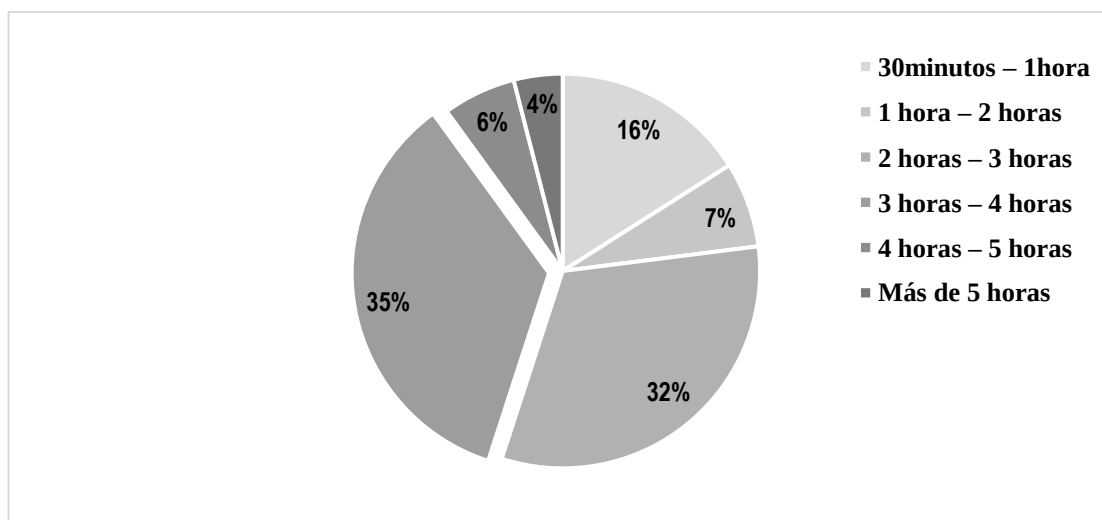


Figure 5

Time spent on academic work on social media

Note. The figure shows the distribution of time spent by participants using social networks to carry out their academic work.

Source: Authors. In original language Spanish

According to The data presented, it can be deduced that 35% of the participants spend a period of 3 to 4 hours in the use of social networks to execute their academic works; 32% range between 2 and 3 hours. The relationship between studies and the number of hours dedicated to these networks can be described by the figure proposed, however, it is observed that vocational training and university students are the ones who tend to spend more time daily on these platforms. (Fernández, 2022)

(Maldonado, García, & Sampedro, 2019) According to a study carried out, the recurrent use of digital platforms to carry out academic or work tasks represented 38.3% and 47.4%; These findings coincide with the research as they allow them to connect with their classmates to collaborate on projects, share study resources, and access online communities where they can discuss topics related to their academic activities.

Research was carried out on the union of educational groups through social communication platforms, the results are shown in Figure 6.

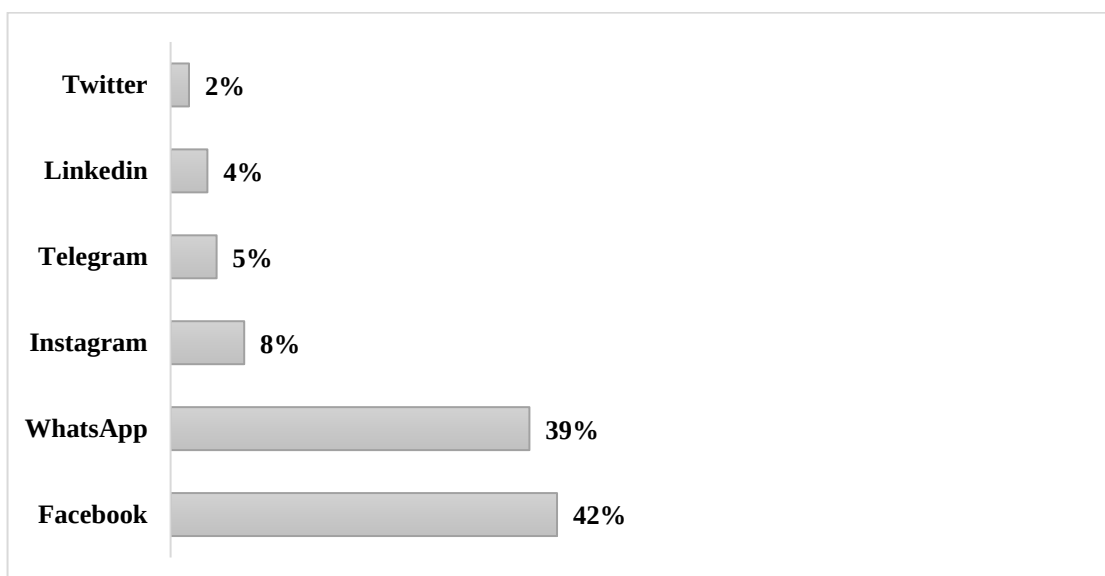


Figure 6

Joining educational groups through the use of social networks

Note. The figure indicates the participation of students in didactic groups according to the social media platform used.

Source: Authors. In original language Spanish

It is observed that 42% of the students surveyed have joined didactic groups through the Facebook platform, 39% through the WhatsApp App, 8% through Instagram; with respect to the least used is Telegram with 5%, LinkedIn 4% and Twitter 2%. The effective use of these tools available on the platforms being free and accessible, offers a very competitive opportunity to foster collaboration in the educational environment, which in turn stimulates the motivation and interest of students in their teaching and learning process. (Sans, 2009)

In the Universities in the United States, both students and professors make regular use of social networks such as Twitter, Facebook, LinkedIn and others, as part of their academic routine these are used to extend the teaching and student activity, either by sharing learning resources, delving into topics of study, making relevant announcements or starting discussions on specific topics. (Naso, Balbi, Di, & Peri, 2012)

In addition, several advantages of the use of social networks in the educational environment have been identified, such as: the ability to promote the development of digital skills, facilitate collaboration and knowledge sharing, encourage teamwork, act as a meaningful source of motivation for students, and contribute to the development of autonomy, i.e., they are tools considered to be highly beneficial for a pedagogical approach focused on the active participation of students. However, it is important to mention that the educational potential of these networks could be used more effectively because technology plays a crucial role in the educational system. (López, Pozo, & Fuentes, 2020)

The impact of social media on educational achievement was examined, and the results are shown in Figure 7.

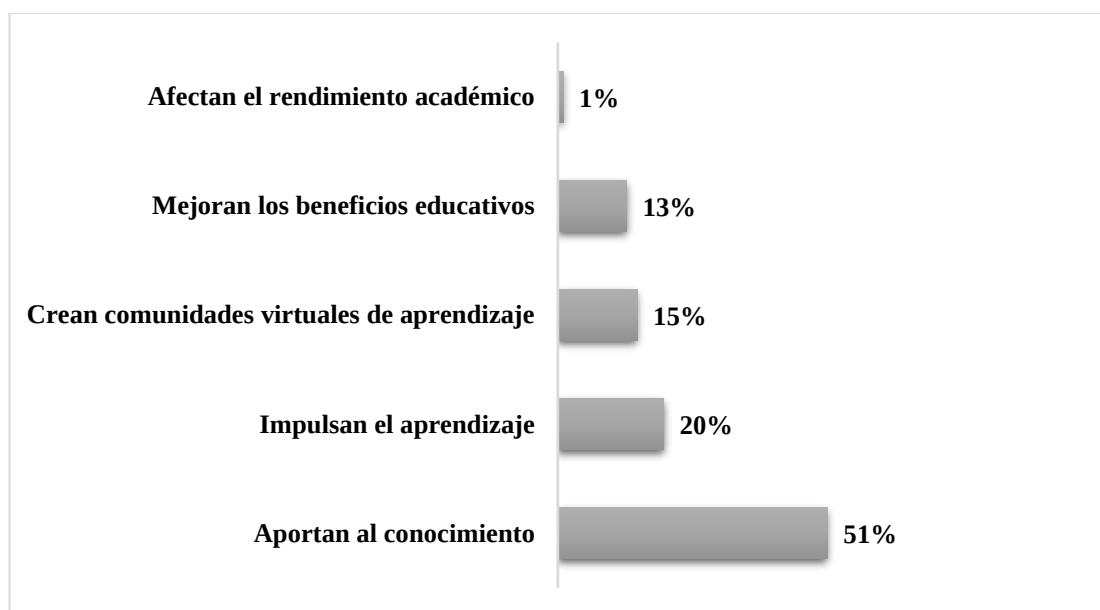


Figure 7

Social networks in learning

Note. The figure reveals students' perceptions of the use of technological platforms in the learning process.

Source: Authors. In original language Spanish

According to the results, 51% mention that the use of these platforms during the learning process contributes to the development of knowledge. In addition, 20% consider that these technological tools motivate students to seek and acquire knowledge. 15% attribute that they have the ability to facilitate the creation of virtual study groups, while 13% believe that they improve educational benefits in general. However, a small percentage, 1%, say that these platforms can have a negative impact on academic performance.

In relation to the role of the student in the media of Virtual Communities, this being the central point of the teaching-learning process, it is vital that they acquire skills related to the ability to access sources of information supported by the technology.

In the same way, it is important that technological skills are demonstrated that allow them to consume, use and generate information effectively. (Islas & Carranza, 2011)

Social networks are gaining greater relevance and presence in university institutions, which is causing transformations in educational approaches and in access and learning modalities, which become innovative allies that contribute to improving the teaching-learning process and the quality of education. In this way, beneficial innovations for higher education emerge. (Robles, 2022)

The impact of social networks has been a topic of discussion in academic circles, due to the repercussions they have had on society. It is stated that, in the last two years, digital platforms have become the most prominent tools (Alcívar & Yáñez, 2021)s In the information age, it is considered that these can be convenient in the following educational aspects, such as: collaboration and teamwork, access to educational resources, interaction and active participation, feedback and formative assessment, development of digital skills, flexibility and personalization of learning, promotion of motivation and commitment. (Cruz, Pozo, Aushay, & Arias, 2018)

From the different points of view of the Authors cited, it is argued that social networks in higher education offer unprecedented opportunities for collaboration and communication between students, professors and experts in the field, it is worth mentioning that these platforms allow the rapid exchange of ideas, the discussion of relevant topics and the creation of online learning communities. In addition, they facilitate the connection with external professionals and resources, thus enriching the educational experience. Herself considers that their impact on higher education is multifaceted and complex, because they offer significant opportunities for collaboration, access and participation, they also pose challenges in terms of privacy, reliability of information and balance between the academic and the social. To maximize the benefits of (Díaz & Cabrero, 2019)Social Media In higher education, it is important to address these challenges in a preventive and thoughtful manner.

Although the benefits are evident, it is crucial to adopt a thoughtful approach to address the challenges associated with the use of digital platforms in education, ensuring privacy, reliability of information and the balance between academics and social, as well as generating a continuous focus on the development of digital skills and responsibility in their use.

Conclusion

The integration of technologies in education together with the tools offered by the Internet, has raised the cognitive level of students by facilitating the creation of collaborative environments and the negotiation of new knowledge, this has significantly boosted the learning process, making the student the main protagonist.

It was determined that social networks do not have a negative impact on the academic performance of students, but rather show the positive impact because they facilitate communication, allow access to educational resources which contributes to the academic success and personal growth of students, positively influencing academic performance, it should be noted that it is important to recognize and address that there are associated challenges, such as distraction, access to unverified information, and potential exposure to inappropriate content. The most widely used platforms for educational purposes were WhatsApp, Facebook, and Telegram, highlighting their role in promoting collaboration and the exchange of ideas among students.

The impact generated by social networks on the teaching and learning process in higher education is notorious and complex, because these platforms have radically changed the way in which students and professors relate, collaborate and access educational resources, being evidenced as tools of great value to enrich the educational experience and encourage the active participation of students. However, it is essential to manage the use carefully to enhance its advantages and mitigate the risks involved.

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