Social networking in the classroom: redefining learning in the digital age

Redes sociales en el aula: resignificando el aprendizaje en la era digital

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Abstract

This article addresses the use of social networks in the context of urban secondary education, with the objective of understanding their impact on the teaching and learning processes from the perceptions of teachers and students. The research was developed under a qualitative and interpretative approach, using semi-structured interviews and participant observation. The findings were organized into three categories: digital platforms, adaptive methodologies and digital generation gap. The results reveal that, although social networks can generate dispersion and reduce concentration, they also represent a powerful tool to foster collaborative learning, information search and active student participation, as long as they are pedagogically managed. From the theoretical framework, contributions from connectivism (Siemens, 2004; Downes, 2006), the classification of digital natives and immigrants (Prensky, 2001), and recent studies on collaborative digital scenarios (Caicedo et al., 2024; Bernal, 2020), which support the need to integrate these platforms into contemporary educational strategies, are taken up. The article concludes by highlighting the urgency of training teachers with digital competencies and promoting the reflective use of social networks, thus contributing to a more inclusive, contextualized education in line with the challenges of the digital era.

Keywords: Social networks; generational digital divides; artificial intelligence; collaborative learning; adaptive methodologies.

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Resumen

El presente artículo aborda el uso de las redes sociales en el contexto de la educación media urbana, con el objetivo de comprender su impacto en los procesos de enseñanza y aprendizaje desde las percepciones de docentes y estudiantes. La investigación se desarrolló bajo un enfoque cualitativo e interpretativo, empleando entrevistas semiestructuradas y observación participante. Los hallazgos se organizaron en tres categorías: plataformas digitales, metodologías adaptativas y brecha generacional digital. Los resultados revelan que, aunque las redes sociales pueden generar dispersión y reducir la concentración, también representan una herramienta poderosa para fomentar el aprendizaje colaborativo, la búsqueda de información y la participación activa del estudiante, siempre que sean gestionadas pedagógicamente. Desde el marco teórico, se retoman aportes del conectivismo (Siemens, 2004; Downes, 2006), la clasificación de nativos e inmigrantes digitales (Prensky, 2001), y estudios recientes sobre escenarios digitales colaborativos (Caicedo et al., 2024; Bernal, 2020), que sustentan la necesidad de integrar estas plataformas en las estrategias educativas contemporáneas. El artículo concluye destacando la urgencia de formar docentes con competencias digitales y promover el uso reflexivo de las redes sociales, contribuyendo así a una educación más inclusiva, contextualizada y acorde con los retos de la era digital.

Palabras clave: Redes sociales; brechas digitales generacionales; inteligencia artificial; aprendizajes colaborativos; metodologías adaptativas.

1. Introduction

Currently, social networks have acquired a leading role in the transformation of educational and communicative processes, especially in urban secondary education. The research was aimed at analyzing the use of these platforms by both teachers and students, with the objective of understanding their impact on academic environments. Specific objectives included: examining teaching practices with social networks, interpreting student perceptions and constructing a theoretical framework on their educational use, promoting more interactive and collaborative learning.

2. Theoretical framework

Nowadays, talking about social networks includes the diversity of interactive activities of digital profiles, it is relevant that, although the approaches of the United Nations 2030 Agenda (2015) highlights the importance of access to technologies to ensure equitable and quality education. In a complementary manner, UNESCO (2019) and ECLAC (2016) insist on the need to integrate ICTs

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in education to meet the Sustainable Development Goals.

Contributions such as the connectivism of Siemens (2004) and Downes (2006), which conceives learning as a dynamic and collaborative construction mediated by digital networks. Bernal (2020) expands this vision by recognizing the value of digital platforms for the construction of knowledge. Likewise, Prensky (2001) distinguishes between digital natives and digital immigrants, which underlines the need for teachers to develop technological competencies.

Finally, recent research such as Caicedo et al. (2024) and Gómez and Ortiz (2018) show how the integration of social networks in pedagogical strategies favors collaborative digital environments, developing digital skills in both students and teachers within a constantly evolving social context. Emphasizing the experiences and meanings that social networks acquire in everyday life, and recognizing their potential to transform educational processes, it is essential to understand how these technologies - increasingly present in society - can improve pedagogical communication, strengthen collaborative learning and meet the demands of students in urban contexts.

3. Methodology

The research was developed under a qualitative approach, as proposed by Creswell (2018), whose purpose is to interpret phenomena from the voices and perspectives of those who experience them. This type of methodology is relevant to explore the experiences and meanings attributed to the use of social networks in the educational environment (Denzin, 2017; Kwan & Alegre, 2023). Likewise, an interpretative approach was adopted, which allows analyzing the data from a constructivist point of view, focusing on on how subjects configure their reality from their social interactions (Abreu, 2012, cited in Kwan & Alegre, 2023). For the collection of information, semi-structured interviews were used, which allowed access to detailed testimonies about perceptions and experiences related to the educational use of social networks. Table 1 contains the alphanumeric coding and the relationship of the active social network.

Table 1. Key informants selection criteria - Students

Alphanumeric code	Active social network
STU-X1	Facebook TikTok, WhatsApp, Instagram,
STU-X2	TikTok Instagram, WhatsApp, Facebook,
STU-X3	Facebook TikTok, WhatsApp, Twitter, Instagram, YouTube,
TCH-Y1	YouTube WhatsApp, Instagram, Facebook,
TCH-Y2	Pinterest Instagram, WhatsApp, Twitter, LinkedIn, Facebook, TikTok,
TCH-Y3	Instagram, TikTok, WhatsApp, Twitter, , YouTube, Facebook
TCH-Y4	WhatsApp, YouTube, Facebook,

Source: own elaboration

The selection of the participants was related to their experience and knowledge

in teaching the area of Spanish Language and the integration of the use of social networks within their pedagogical practices. In the case of the students, their participation was voluntary and supported by informed consent, which allowed the ethical treatment of the data collected.

4. Results

pretation of the students' use and teachers' perceptions of these platforms (see Table 2).

Table 2. The findings of the study focus on the interTime of use of applications

Application	Time of use
TikTok	2 hours 32 minutes
Chrome	57 minutes
WhatsApp	22 minutes
Facebook	16 minutes
Instagram	8 minutes
Twitter	3 minutes

Source: own elaboration

The data collected evidences a significant use of social networks by the STU-X1 student, highlighting the TikTok platform, with a usage time of 2 hours and 32 minutes, as the most used application. This indicates a high exposure to visual content of short duration, which may be related to both entertainment purposes and quick information search, given the growing presence of educational content on this network.

In second place, the Chrome browser registers 57 minutes, suggesting a practice of consultation or web browsing that, depending on the context, could be linked to academic tasks or personal searches. It

is followed by WhatsApp (22 minutes) and Facebook (16 minutes), which shows a moderate level of communicative and social interaction.

On the other hand, applications such as Instagram (8 minutes) and Twitter (3 minutes) present a much lower usage, which may indicate a lower preference for these platforms in the student's daily routine or a segmentation of their functions: it is likely that TikTok and WhatsApp are fulfilling broader roles in their daily lives, integrating entertainment and communication.

These results reflect that social networks occupy a central place in the daily use of screen time, and raise key questions about how these tools can be exploited pedagogically. The dominance of TikTok highlights the need to rethink educational strategies that are aligned with the formats and interaction dynamics of these platforms, thus facilitating more contextualized and meaningful learning for students in digital urban environments. (See Table 3)

Table 3. Time use by category - Daily Panel

Category	Usage time
Video	2 hours 56 minutes
Games	2 hours 42 minutes
Social	1 hour 11 minutes
Notifications	252
Total, screen usage	**7 h 6 min**

Source: own elaboration

The data presented show that the student had a total screen usage time of 7 hours and 6 minutes, which represents a significant day of exposure to mobile

devices. The highest consumption is in the video category (2 hours 56 minutes), which could be associated with the use of platforms such as YouTube or TikTok, reflecting a high preference for visual and audiovisual content. This behavior could have both positive (audiovisual learning, educational content) and negative (stimulus overload, distraction) implications.

Secondly, the use of games reaches 2 hours and 42 minutes, suggesting a marked recreational pattern, possibly linked to the search for escape or entertainment. This may also influence attention span or the distribution of time devoted to other academic or social activities.

The use of social networks (1 hour 11 minutes) represents a smaller portion of the time, but is still relevant, given that these platforms also mediate processes of communication, expression and, in some cases, collaborative learning.

Finally, a total of 257 notifications received during the day are reported, which may indicate digital hyperconnectivity. This constant volume of alerts can generate frequent distractions and affect concentration, both in academic and personal contexts.

Taken together, these data invite reflection on the need to develop digital self-regulation skills, both in students and teachers, in order to promote a more balanced, conscious and educational use of technologies.

Table 4. Usage time by application

Application	Usage time
TikTok	6 hours 1 minutes
WhatsApp	2 hours 42 minutes
Free Fire MAX	1 hour 58 minutes
Total, screen usage	**11 hours 51 minutes**

Source: own elaboration

Student STU-X1 recorded a total screen usage time of 11 hours and 51 minutes during Saturday, March 11, which represents a very high level of daily exposure to mobile devices. This figure far exceeds international recommendations for balanced screen use, especially for adolescents.

The most used application was TikTok, with an accumulated time of 6 hours and 1 minute, which evidences a high consumption of short audiovisual content, characteristic of this social network. This pattern suggests a high dependence on quick visual stimuli, which may be linked to entertainment dynamics, search for digital belonging or even emotional escape.

Second, WhatsApp was used for 2 hours and 42 minutes, reflecting a strong presence of technology-mediated social communication, which may be related to both academic and personal activities.

Finally, Free Fire MAX, an online action video game, totaled 1 hour and 58 minutes. This time indicates significant interaction with gaming platforms, which, while they can foster cognitive skills and

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coordination, can also interfere with rest, concentration or fulfillment of responsibilities if not properly regulated.

This high level of daily use is evidence of the need to establish healthy limits on screen exposure time, promote self-regulation spaces and encourage more balanced digital practices. It also invites reflection on the role of teachers and families in guiding the use of technology for educational and wellness purposes.

5. Conclusions

The use of social networks in secondary education represents an opportunity to transform teaching-learning processes, especially when adaptive methodologies that respond to students' own digital dynamics are integrated. As Siemens (2004) and Downes (2006) point out, knowledge in the digital era is built through connection networks, which is confirmed in this study by observing that platforms such as TikTok or WhatsApp facilitate collaboration, the exchange of ideas and the collective construction of knowledge in urban contexts.

The analysis of digital behavior evidences the need to develop self-regulation and digital literacy competencies in both students and teachers. The intensive use of applications such as TikTok (up to 6 hours a day) reflects not only a high exposure to audiovisual content, but also a fragmentation of attention, as Bernal (2020) warns. This implies a pedagogical challenge to channel the use of these

platforms towards educational purposes, through strategies that encourage critical thinking and information verification.

The research confirms that the generational digital divide is not limited to access, but manifests itself in the competencies of meaningful use of social networks. According to Prensky (2001), the difference between digital natives and immigrants requires teachers to acquire technological skills to connect with their students. In line with this, Caicedo et al (2024) highlight how pedagogical adaptation to collaborative digital environments allows teachers to respond to social transformations, contributing to a more contextualized and inclusive education.

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