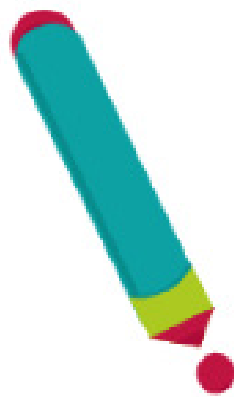


# INCIDENCE OF SOCIAL NETWORKS ON CRITICAL THINKING IN UNIVERSITY STUDENTS.

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## Abstract

Social networks raise questions about how these platforms affect the way of thinking and acting of millions of people who are part of these digital communities. In the academic spaces of higher education, it is observed that the amount of information, entertainment and new forms of communication are widely used by students, teachers, managers and administrators.

This research article is framed in a documentary review focused on the categories of social networks and critical thinking. Its purpose is to serve as a source of consultation and analysis to determine whether social networks positively or negatively impact the critical and reflective thinking of university students, facilitating their academic and professional development to analyze, evaluate and synthesize information in a reflective and deliberate manner.

The research was based on the search for sources such as books, essays and articles that address critical thinking and social networks in university contexts. Aspects were evident such as: a) limitations in the development of critical thinking in students and the importance of the teacher as a guide; b) essential characteristics of critical thinking such as self-discipline and analysis; c) the initial and ongoing impact of social networks in university environments.

The results highlight the need for teachers to implement specific and effective guidelines for students to critically use information from social networks, thereby improving their critical thinking skills, promoting academic integrity and ethical development. The documentary review concludes that social networks have a significant impact on the critical thinking of higher education students, with both positive and negative effects. Although they facilitate quick access to diverse information and encourage critical reflection, information overload and difficulty discerning reliable sources can limit robust critical thinking.

**Key words:** critical thinking, social networks, higher education.

## Resumen

Las redes sociales plantean interrogantes sobre cómo estas plataformas inciden en la forma de pensar y actuar de millones de personas que forman parte de estas comunidades digitales. En los espacios académicos

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de la educación superior, se observa que la cantidad de información, entretenimiento y las nuevas formas de comunicación son ampliamente utilizadas por estudiantes, profesores, directivos y administrativos.

Este artículo de investigación se enmarca en una revisión documental centrada en las categorías de redes sociales y pensamiento crítico. Su propósito es servir como fuente de consulta y análisis para determinar si las redes sociales impactan positiva o negativamente en el pensamiento crítico y reflexivo de los estudiantes universitarios, facilitando su desarrollo académico y profesional para analizar, evaluar y sintetizar información de manera reflexiva y deliberada.

La investigación se basó en la búsqueda de fuentes como libros, ensayos y artículos que abordan el pensamiento crítico y las redes sociales en contextos universitarios. Se evidenciaron aspectos como: a) las limitaciones en el desarrollo del pensamiento crítico en los estudiantes y la importancia del docente como guía; b) características esenciales del pensamiento crítico como autodisciplina y análisis; c) el impacto inicial y continuo de las redes sociales en entornos universitarios.

Los resultados subrayan la necesidad de que los docentes implementen directrices específicas y efectivas para que los estudiantes utilicen críticamente la información de las redes sociales, mejorando así sus habilidades de pensamiento crítico, promoviendo la integridad académica y el desarrollo ético. La revisión documental concluye que las redes sociales tienen un impacto significativo en el pensamiento crítico de los estudiantes de educación superior, con efectos tanto positivos como negativos. Aunque facilitan el acceso rápido a información diversa y fomentan la reflexión crítica, la sobrecarga informativa y la dificultad para discernir fuentes confiables pueden limitar un pensamiento crítico robusto.

**Palabras claves:** pensamiento crítico, redes sociales, educación superior.

## I. INTRODUCTION

In the digital age, social media has emerged as a pervasive phenomenon that redefines social interaction and the ways we access, share, and process information. This relevant change in communication dynamics raises critical questions about its impact on fundamental cognitive skills, particularly in the academic context. This research aims to understand the influence of social networks on the critical thinking of students in higher education settings.

According to Espíndola & Espíndola (2015), human beings, endowed with intelligence, stand out from other living beings. This ability to understand, interpret, and modify their environment offers countless possibilities and the freedom to choose alternatives, freeing them from mere reliance on animal instincts and routines. However, intelligence, as a powerful tool, carries risks, as it can be used to both build and justify negative situations. Guiding life through intelligence requires a conscious effort that must be learned and should spark the interest of educational institutions to provide tools that develop logical and creative skills in students. Despite the abundance of information available through various media, many students lack the skills to interpret, discriminate, and use it effectively, partly due to a lack of reading habits and an education system that does not promote active student participation. The lack of reading also impacts logical skills, the ability to organize information, and problem-solving capabilities.

Critical thinking is a way of reasoning that can be described in various ways, but it always relates to the concept of evaluation.

The origin of the word "critical" comes from the Greek term κρισις (kri), which means to reflect or make a decision. Therefore, when referring to critical thinking, it generally relates to practices of inquiry and evaluation, which ultimately allow for expressing a judgment or adopting a stance based on an event or idea.

Critical thinking is essential for academic and professional development; it involves the ability to analyze, evaluate, and synthesize information in a thoughtful and deliberate manner.

According to Lipman (1991), a prominent educator and thinker, critical thinking goes beyond mere rationalization. When making judgments, clarity of ideas and coherence of arguments must be sought.

For Lipman, critical thinking not only aims to be a "perfect

argument," but also involves a continuous process of self-correction. He emphasizes that critical thinking is a comprehensive cognitive skill that coordinates various abilities such as reasoning, concept formation, research, and translation. In his words, when we think critically, we engage in a broad range of cognitive skills grouped into families such as reasoning, concept formation, research, and translation.

In the article "A Look at Critical Thinking in the Educational Teaching Process in Higher Education" by Palacios et al. (2017), it is stated that the ability to reflect, experience, reason, and adhere to the scientific method is fundamental for cultivating critical thinking. This process requires transparency, accuracy, impartiality, and evidence, thereby avoiding subjective opinions. It constitutes an intellectual and disciplined endeavor that skillfully conceptualizes, analyzes, and synthesizes information obtained through observation and reflective reasoning, ultimately leading to belief and action.

### II. Limitations of Critical Thinking.

In higher education, the authors of this review note that there are limitations in the development of critical thinking among students. This is attributed to a lack of clarity in the instructions or guidelines provided to students by educators, highlighting the necessity for further investigation and exploration of this issue. Additionally, it is essential to seek and create strategies and methodologies that facilitate the effective implementation of critical thinking.

### II. Characteristics of Critical Thinking

The characteristics of critical thinking include being goal-directed, self-disciplined, self-regulated, and self-correcting. This entails the use of concrete examples to illustrate and clarify ideas, as well as establishing relationships between objects and phenomena. It involves identifying and proposing solutions to complications, conducting comparisons, analyzing from various perspectives, and focusing on key ideas.

The role of the teacher is crucial for students to learn to think critically. While this is important, insufficient time and effort are currently dedicated to it in schools. Teachers must ensure that their students develop the art of critical thinking and reflection, making it a regular and organized part of the educational experience.

### III. Critical Thinking

The strategies aimed at fostering critical thinking

incorporate pedagogical methods, Meta cognitive skills, and the transmission of competencies. These tactics seek to obtain and utilize essential competencies for critical thinking, such as the ability to analyze, objectively evaluate information, identify valid arguments, solve problems logically, reflect on one's own thinking process, and make informed and well-founded decisions.

The didactics of critical thinking involves participatory and substantive instruction through communication and the exchange of information, which fosters curiosity, the formulation of questions, reflection, and the application of knowledge for decision-making and the presentation of solutions. The educator must create conditions that encourage the free expression of students while providing pedagogical guidance. Key guidelines include the prior selection of content, identification of competencies to be achieved, formulation of analytical questions, activation of participation from all students, and the use of methods that promote active review and reflection.

#### IV. Social Networks and Critical Thinking

With the advent of the Fourth Industrial Revolution, referred to by Schwab (2016) as "the digital and technological age" (p. 19), many aspects of life have undergone abrupt changes. New ways of relating, interacting, and communicating among individuals have evolved at an incredible pace. The creation of increasingly sophisticated smartphones has led to the invention of new technological platforms such as Facebook, WhatsApp, Instagram, YouTube, X, and TikTok, which are among the most recognized and commonly used by people. This has resulted in the dissemination and propagation of information being just a click away, promoting access to information and influencing the time users spend on these social media platforms.

#### V. ORIGIN OF SOCIAL MEDIA

Since their emergence in the 1990s, social networks have transformed the ways in which humans communicate and interact. Instant messaging through chat applications provided a means for bidirectional communication among two or more users. In 1995, the first social network, Classmates.com, appeared in the United States. It is considered to be the first platform created by a former university student, intended to maintain contact with classmates, as long-distance communication options at that time were almost nonexistent (Torres, 2020, p. 59). Subsequently, various social platforms began to emerge, with notable early examples including AOL Instant Messenger (AIM) and ICQ ("I Seek You"). This led

to a proliferation of platforms starting in 1997, aimed at interconnecting users within online communities. Among these were social sites such as SixDegrees.com in 1997, AsianAvenue.com, BlackPlanet.com, and MiGente.com. From 1998 to 2001, LiveJournal and Cyworld emerged; in 2000, LunarStorm was created in Finland, followed by Ryze.com in 2002, Tribe.net, LinkedIn, Friendster, and Hi5 in 2003, MySpace, Facebook in 2004, Flickr in 2004, YouTube in 2005, and Twitter in 2006 (Pellat, 2009, p. 30). Notably, Facebook, launched in 2004, originated within a purely university community, utilizing email addresses ending in "edu" as a sign of student identity within the Harvard academic environment. Within this context, Pellat (2009) notes that between 2002 and 2006, the rise of Web 2.0 tools facilitated the consolidation of social networks as a major new phenomenon on the Internet. Millions of people have integrated social media into their daily lives, leading to a significant process of cultural adaptation (p. 30).

The integration of social media into everyday life has transformed economic, political, cultural, social, health, and educational sectors for several reasons:

The emergence of Information and Communication Technologies in the 1990s led various social sectors to reevaluate their practices, and the education sector was no exception. This transformation and the dynamics of human relationships particularly foster a flexible, open, and decentralized education, where students become active producers of their own knowledge (Acosta, 2019, p. 216).

While the emergence of these platforms helps to foster connections—whether familial, professional, emotional, or academic—for the benefit of communities, not all practices associated with these networks are beneficial for their members. As Torres (2020) points out, "social networks are not exempt from this reality; through them, crimes such as extortion, threats, trafficking of sexual content, human trafficking, kidnappings, robberies, account theft, etc., are committed" (p. 61).

In addition to these general issues associated with social networks, the educational context reveals further challenges, such as the negative impact on honesty during students' formative processes. Platforms like Facebook and WhatsApp have become, alongside communication and entertainment tools, channels for fraud and information copying. It is increasingly common for students to share answers during assessments in the classroom. This dishonest and unethical practice adversely

affects their performance in educational activities and raises concerns about their critical and reflective learning.

## VI. Theoretical Framework

The previously described ideas are grounded in a concept that encompasses both the principles of critical thinking and social networks. Thus, the theoretical foundations of Habermas (1992) with his theory of communicative action are essential for addressing the conception of human criticality through a social-critical approach. His notions of social action and rationalization serve as key references, positing that humans are inherently social beings whose relationships are established through communication across various realms, such as the life world, the system, and communicative action itself. Additionally, Habermas argues that humans exist within a social, cultural, political, and economic environment that governs their interactions, significantly influencing their daily lives.

Within this framework, McLuhan (1964) is also noteworthy, particularly through his book *Understanding Media: The Extensions of Man*. He emphasizes the paradigm shift between mechanical and electronic media and discusses the invention of new tools for social interaction that alter how people relate to one another and interpret their surroundings. McLuhan's theories suggest that the planet has transformed into a global village, as articulated in his writings.

In relation to this discussion, Han (2014) in *In the Swarm* examines contemporary modes of existence that govern the world. From a critical perspective, he describes the spectacle and the bubble in which internet societies currently reside, noting how social networks have led to a blurring of public and private spheres. He asserts that "the lack of distance leads to a mixing of the public and the private. Digital communication promotes this pornographic exposure of intimacy and the private sphere" (p. 14).

These theories substantiate the presented ideas and pave the way for understanding the current dynamics between critical thinking and the rise of new forms of communication brought about by the internet, particularly through social media.

## II. METHODOLOGY

For the collection of bibliographic documents, various documentary sources were utilized. Firstly, consultations were made with experts in critical thinking and social networks. Additionally, a systematic review was conducted through searches on "Google Scholar." Keywords such as "critical thinking," "social media," and "higher education" were used in these searches.

The criteria applied for the selection of information included: 1) Articles focused on critical thinking and social media, 2) Publications from the years 2018 to 2024, 3) Studies and articles written in Spanish, 4) Publications from Latin American countries and Spain, and 5) Complete, open-access articles with titles related to critical thinking and social media in educational contexts.

Exclusion criteria were as follows: 1) Original articles that do not address critical thinking and social networks, 2) Publications outside the specified date range, 3) Studies in languages other than Spanish, 4) Publications from countries not belonging to Latin America or Spain, and 5) Incomplete articles, restricted-access publications, or duplicates.

## III. RESULTS

In the preliminary search, 350 publications were identified using the combined keywords in Spanish: "critical thinking," "social networks," and "higher education." The documentary research revealed that social networks significantly influence the critical thinking of higher education students. This influence stems from the ubiquitous and accessible nature of information on these platforms, which can have both positive and negative effects.

**Positive Effects:** Social media allows for quick and broad access to diverse sources of information, enriching students' knowledge and perspectives while fostering curiosity and critical reflection.

**Negative Effects:** However, the overload of information and the lack of skills to discern between reliable and unreliable sources can hinder the development of robust critical thinking.

The reviewed studies highlight several limitations in the development of critical thinking among university students, often attributed to the improper use of social networks, including:

1. Lack of Clarity in Instruction: Many teachers do not provide clear guidelines on how to critically use information obtained from social networks. This underscores the need for more effective and specific pedagogical strategies to promote critical thinking.

2. Academic Dishonesty: Platforms like Facebook and WhatsApp sometimes facilitate dishonest practices, such as sharing answers during assessments, which negatively impacts the development of critical and ethical skills.

It is imperative for teachers to develop clear and effective strategies to foster reflective and analytical skills in their students. Ultimately, the development of critical thinking stands as an essential pillar in the comprehensive education of higher education students, preparing them to face future challenges with acuity and discernment.

Regarding the limitations, it is important to mention that the number of articles analyzed does not encompass the entirety of available scientific literature, as only three databases were considered: critical thinking, social networks, and university students, among many other possible sources. While these factors may introduce certain biases, this systematic review can serve as a valuable reference point for future research and for making more informed decisions on the topic addressed in this article.

## IV. DISCUSSION

Research on the impact of social networks on the critical thinking of university students reveals a complex and multifaceted landscape. On one hand, platforms such as Facebook, WhatsApp, and Instagram can enrich access to diverse information and foster intellectual curiosity and critical reflection. This instant and broad access to multiple sources of information has the potential to expand students' perspectives and strengthen their ability to analyze and synthesize information critically.

However, significant challenges also arise. Information overload and the difficulty in distinguishing between reliable and unreliable sources present major barriers to developing robust critical thinking. Moreover, the lack of clear guidelines from teachers on the critical use of information available on social network can hinder the development of critical skills in students. Dishonest practices facilitated by these platforms, such as sharing answers during assessments, further negatively impact their ethical and critical development.

In summary, while social networks offer valuable

opportunities for enhancing critical thinking, it also necessitates careful navigation and the implementation of effective educational strategies to mitigate its drawbacks.

## V. CONCLUSIONS

1. This research addresses the uncertainty regarding how social networks affect the thinking and behavior of students in higher education. The omnipresence of information, entertainment, and new forms of communication derived from these platforms raises questions about their influence on students' critical and reflective thinking.

2. A limitation in the development of critical thinking in higher education is highlighted, attributed to the lack of clarity from teachers. This underscores the need to investigate and design strategies to enhance its implementation, recognizing the importance of cultivating reflective, analytical, and evaluative skills in students.

3. The role of the teacher emerges as crucial in the development of critical thinking. Emphasis is placed on the importance of dedication and educational practices focused on systematizing reflection throughout the educational process. Strategies such as active learning, dialogue, and self-correction are essential for cultivating effective critical thinking.

4. It is acknowledged that social networks, in the context of the Fourth Industrial Revolution, have transformed communication, interaction, and education. Instant access to information has generated significant cultural change. The research highlights the need to understand how this transformation affects cognitive skills, particularly in the academic realm.

5. The research emphasizes the necessity of critically addressing the impact of social networks on the thinking of university students, recognizing both its benefits and the challenges it poses for the development of critical and reflective skills.

6. This research will facilitate analysis and reflection based on the cited authors and the application of information collection instruments regarding the impact of social networks on critical and reflective development in both professional and personal contexts. Ultimately, fostering critical thinking stands as an essential pillar in the comprehensive education of university students,

preparing them to confront future challenges with acuity and discernment.

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