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LITERACY IN ARTIFICIAL INTELLIGENCE: ANALYTICS DATA AND DECISIONS IN STRATEGIC COMMUNICATION

Comparative analysis between students and academic managers

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ABSTRACT

Artificial intelligence is reshaping key communication processes. This study analyzes AI literacy in communication degree programs in Ecuador to identify the gap between knowledge and practical use. A mixed methodology is used: student surveys and in-depth interviews with program directors/coordinators. It reveals that students perceive AI as a resource for mediation and strategic optimization, although their learning is mostly self-taught. Directors recognize the relevance of AI, but show evidence of its incipient incorporation into training. It concludes that a training gap persists, requiring curriculum updates aimed at strengthening professional skills.

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1. Introduction

The rapid expansion of artificial intelligence (AI) is significantly redefining contemporary communications ecosystems. Particularly in the field of strategic communication, it is substantially changing the processes of data analysis, information visualization, media monitoring, decision-making, and other key activities in communication management within organizations. The incorporation of intelligent systems into these processes is not limited to the management of large amounts of information, but also reconfigures the dynamics through which knowledge is produced, interpreted, and used in business and media contexts.

AI literacy is understood as the set of skills that enable individuals to: critically analyze and evaluate AI-based technologies; communicate, collaborate, and work effectively with AI; and use AI as a tool online, at home, and in the workplace (Yang *et al*., 2025). This is key for individuals to interact with new emerging technologies and, above all, to do so responsibly and effectively in different contexts. Communicating and collaborating effectively with AI tools improves human-machine interaction and boosts productivity in educational and work environments, significantly promoting more dynamic and creative learning processes (Ng *et al*., 2021). Another important element is the ability to critically evaluate AI systems, identifying limitations, benefits, and risks that are essential for mitigating biases and making informed decisions about their use (Chiu *et al*., 2024).

From this perspective, AI literacy emerges as a fundamental skill for communication professionals, one that must be developed in university classrooms, as it requires "technical understanding, implementation skills, critical evaluation, and ethical considerations" (Barrios & Carazas, 2025, p. 8) for its proper use. Various studies emphasize that university education faces the challenge of incorporating AI teaching and practice in order to integrate these skills systematically, preventing learning from depending exclusively on individual initiatives or self-taught processes (Galván & Calderón-Garrido, 2024; Duque-Rengel & Puertas-Hidalgo, 2024; Barrios & Carazas, 2025; Puertas-Hidalgo & Duque-Rengel, 2025; Gutiérrez-Castillo *et al*., 2025).

Against this backdrop, this research was born with the aim of analyzing the level of AI literacy among students in communication degree programs and the perspective of academic leadership regarding the incorporation of AI and emerging technologies into educational processes. The main purpose is to identify possible gaps between theoretical knowledge, the practical use of tools related to data analysis and visualization, and institutional expectations, in order to provide evidence to guide curriculum updating processes and strengthen professional skills in strategic communication.

2. Theoretical framework

2.1. Artificial intelligence in strategic communication.

Artificial Intelligence, defined as the ability or aptitude of computer systems to learn from experience, adapt to new information, and perform tasks similar to those performed by humans (Duan *et al*., 2019), has established itself as one of the most influential technologies in the transformation of communication processes.

> The terms AI and AI systems were first introduced in the 1950s. Since then, AI has experienced its ups and downs. With the rapid advancement of big data technologies, such as improved computational storage capacity and the ultra-fast speed of data processing machines, AI is being revitalized thanks to the availability and power of big data (Duan *et al*., 2019, p. 63).

From this perspective, AI consists of a set of systems capable of performing tasks that traditionally required human intelligence, such as language comprehension, pattern recognition, learning, and, above all, reasoning. This rise of AI, and especially robotization, mainly in the professional sphere, has generated fears not only about possible job losses, but also about ethical

issues and a possible future in which humans are, to a certain extent, controlled by supposedly more intelligent technologies (Galloway & Swiatek, 2018).

Despite this, in everyday work, the use of AI is considered a tool that can be conceived from a strategic and critical function, requiring the establishment of a more uniform and visible approach to organizational processes. “Professionals play a key role in telling the story of AI to the public, especially since many of the most important use cases for AI are not visible to consumers” (Harris & John, 2025).

In the field of communication, although research has been identified on specific phenomena focused on automated communication, such as AI influencers and chatbots, this trend is steadily increasing in fields such as marketing and journalism. However, its implications for strategic communication are beginning to be addressed (Weller & Lock, 2025) as an urgent requirement, since, from the perspective of communication and public relations professionals who have witnessed the continuous advances in AI, the technology offers valuable potential for increasing stakeholder trust in organizations (Harris & John, 2025).

In the field of organizational communication, AI is a transformative force that changes how it's managed (Duque-Rengel & Puertas-Hidalgo, 2024). This is corroborated by Weller & Lock (2025), who point out that “the trend toward automation, artificial intelligence, and algorithms has taken over the research and practice of strategic communication” (p. 13). These machine learning-based tools not only reduce the operational burden on communication teams, but also enable the continuous and scalable management of communication processes. However, the impact of AI, especially in terms of task automation, dialogue, and communication and stakeholder engagement campaigns, has influenced the field of strategic communication in both favorable and unfavorable ways (Shabangu, 2024).

2.2. Artificial intelligence in strategic communication

Data analysis and visualization "play a crucial role in transforming complex data into accessible and interpretable formats, including tables, graphs, scatter plots, or other types of visualizations (Gubala & Meloncon, 2022), and in the field of communication, they take on a strategic role in communicating clear and digestible messages to audiences. According to Kirk (2016), data visualization is defined as “the representation and presentation of data to facilitate understanding” (p. 52). This process, which is essential in communication management across all areas, has benefited from new artificial intelligence models, especially generative AI, which has a disruptive power that affects most scientific fields and has established itself in recent years as one of the most cutting-edge technological innovations in this field (Goyanes & Lopezosa, 2024).

According to Pérez-Montoro & Opezosa (2026), the emergence, rapid expansion, and widespread use of generative artificial intelligence could help mitigate the training limitations of communication professionals in this field, while also promoting the improvement of narrative products that include data visualization. These AI-generated or AI-assisted visualizations allow for more accessible representations of complex phenomena, facilitating understanding by non-specialized audiences and reinforcing visual literacy objectives. However, incorporating AI into these technical tasks presents challenges and limitations in stages such as data analysis, visual storytelling, and prototype design (Samora & Pera-McGhee, 2024; Makulec & Meeks, 2024).

Alongside data visualization tools, AI-assisted decision-making tools, defined as “systems designed to help human decision-makers analyze data, identify patterns, and generate recommendations” (Neri *et al*., 2025, p.2), are becoming particularly important. These AI-based decision-making support systems are playing an increasingly important role in high-risk decision-making, and their proper use is essential to ensure the effective integration of human intuition with AI recommendations (Xu *et al*., 2025). However, these tools do not replace the interpretive capacity of professionals, but rather act as cognitive supports that expand their analytical possibilities and reduce the burden associated with processing large volumes of information (Van Leersum & Maathuis, 2025). Research on decision support shows that DS-AI systems improve management decisions by supporting accuracy and timeliness, but user acceptance and interpretability remain critical (Kovari, 2024).

2.3. Literacy in artificial intelligence, university training and skills gaps

AI literacy is recognized as a set of essential skills for effectively functioning in an environment mediated by emerging technologies (Markus *et al*., 2025). This includes the knowledge and skills that enable people to understand, evaluate, use, communicate, and collaborate critically and effectively with AI systems and tools (Mills *et al*., 2024; Long & Magerko, 2020).

From this perspective, AI literacy is a topic of primary interest in both academic and professional circles. Higher education, in this sense, occupies a strategic position in its development. "Fostering these competencies is now considered a crucial mission for higher education in preparing students for an AI-driven future" (Hackl *et al*., 2025).

AI literacy is recognized as one of the key skills required by university students, who are future professionals, to face the challenges of the labor and social market, which is increasingly digitized and dominated by intelligent technologies (Hornberger *et al*., 2025). However, there is a clear tension between this recognition and the reality of education systems, as AI is rapidly reshaping the skill expectations of the new workforce, yet university curricula are not evolving at a comparable speed (Yaprak *et al*., 2025). This is corroborated by Hackl *et al*. (2025), who explain that despite this consensus on the importance and necessity of systematically incorporating artificial intelligence literacy into higher education curricula, it remains notably limited.

3. Methodology

3.1. Research objectives

The study's overall objective is to explore AI literacy focused on data analysis and visualization in strategic communication, from the perspective of students and managers in the Communication degree program.

Based on the general objective, three specific objectives are broken down: 1) Identify familiarity with and use of AI tools related to communication data analysis; 2) Determine the value that students assign to AI for decision-making; and 3) Compare the findings with the training plans reported by the directors.

3.1. Research design: research approach and type

This research is conducted using a mixed-method approach, integrating qualitative and quantitative procedures (research techniques) to gain a broad and deep understanding of the phenomenon under investigation (Hamui-Sutton, 2013), which in this case is AI literacy geared toward the analysis and visualization of strategic communication data. Mixed-method research is valuable in investigative processes because it integrates findings and draws inferences using both qualitative and quantitative approaches, allowing the strengths of both paradigms to be combined (Creswell & Plano, 2017).

Furthermore, this research is framed within a non-experimental cross-sectional design. It is non-experimental in nature because it is the most appropriate when the objective is to examine variables: attributes, behaviors, or natural phenomena that cannot be manipulated experimentally by the researcher, but are observed as they manifest themselves in the natural context (Kelige & Lee, 2020; O'Dwyer & Bernauer, 2016). It is also cross-sectional because it corresponds to observational research that allows the prevalence of the phenomenon to be studied and the association between variables of interest to be established (Manterola *et al*., 2023).

3.2. Population and sample

The population studied is divided into two groups: 1) undergraduate students studying communication in Ecuador; and 2) directors/coordinators of communication programs at public and private universities in Ecuador.

For the quantitative component, a non-probabilistic, intentional sampling method was used at the researcher's convenience, and a total of 230 respondents from all levels of the programs were selected.

For the qualitative component, a convenience sample was used, selecting seven directors/coordinators of programs who agreed to participate voluntarily and who have direct experience in curriculum planning.

3.4. Research techniques

Two research techniques were used to collect data:

- **Student surveys**: a structured survey with a Likert scale was administered, with response options organized on a five-point scale ranging from "strongly disagree" to "strongly agree." The questions were designed to measure three variables:
    1. Level of familiarity with AI tools in strategic communication.
    2. Perception of the use of AI for measurement, data analysis, and visualization.
    3. Assessment of AI in strategic decision-making.
- **Semi-structured in-depth interview**: a questionnaire was used to explore, describe, and delve deeper into the institutional vision surrounding the issue under study, in order to understand the criteria that guide academic planning in universities.

3.5. Procedure and data analysis

Data collection was carried out in two phases:

1. Design and validation of instruments (basic questionnaires), which were reviewed by experts in communication and education and, in the case of the survey, through pilot tests.
2. Application of instruments: The survey was administered via an online form in order to facilitate and maximize its reach to the different provinces of the country. The interviews were conducted and recorded in audio and video format via the Zoom platform, with prior authorization and subsequent transcription.

4. Results

4.1. Familiarization with AI tools for data analysis in strategic communication

The concentration of responses from communication students in Ecuador shows low and medium levels of self-perceived familiarity with AI for strategic communication management. Forty-five percent of respondents say they are unfamiliar with these technologies, and 14.8% say they are not familiar at all, representing a combined total of around 60% of the sample surveyed. This result clearly shows the limited uptake of AI among students training in the field of communication.

In addition, 32.6% of participants reported a moderate level of familiarity, suggesting that there is a group with some experience or initial contact with AI tools, although without reaching advanced levels of proficiency. In contrast, high levels of proficiency are clearly in the minority, with only 5.2% reporting being quite familiar and 1.7% reporting a high level of familiarity.

4.1.1 AI Literacy Index

Table 1 summarizes the descriptive statistics that, based on the ordinal scale, enabled the construction of a composite AI literacy index, assigning values from 1 to 5 to each category (1 = Not at all, 5 = Very much).

Table 1. Descriptive statistics for AI literacy

Statistical	Worth
Average	2.33
Median	2

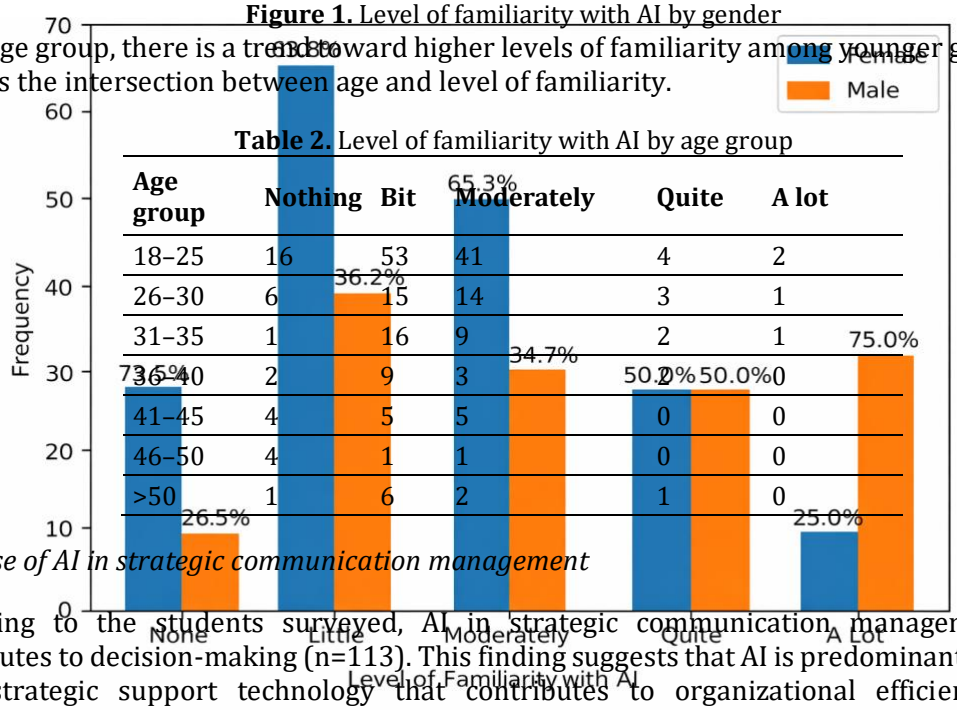
Standard deviation	0.85
Minimum	1
Maxim	5

The average index (M=2.33) indicates a low-moderate level of AI literacy in the sample analyzed.

4.1.2 Differences in AI literacy by gender and age group

AI literacy by gender shows similar patterns, with a predominance of low and moderate levels. However, men have a slightly higher proportion at the "Very much" level, while women are more concentrated at the "Not at all" level, as shown in Figure 1.

Figure 1. Level of familiarity with AI by gender



By age group, there is a trend toward higher levels of familiarity among younger groups. Table 2 shows the intersection between age and level of familiarity.

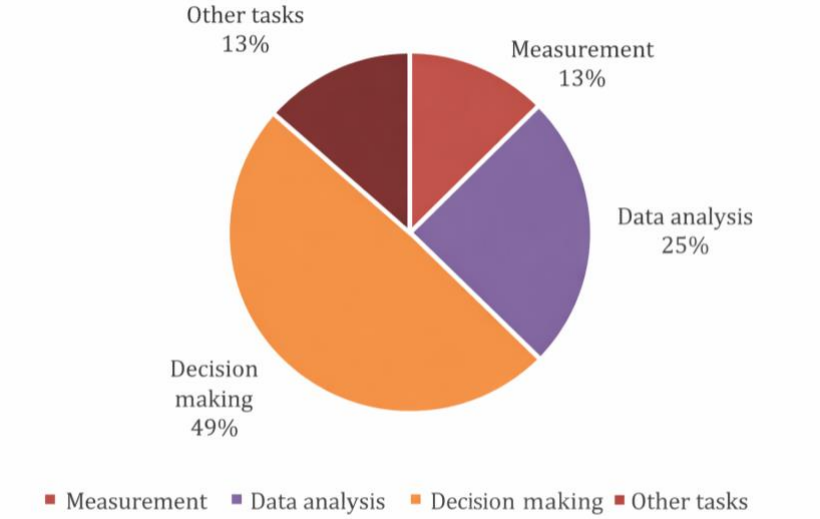
Table 2. Level of familiarity with AI by age group

Age group	Nothing	Bit	Moderately	Quite	A lot
18–25	16	53	41	4	2
26–30	6	15	14	3	1
31–35	1	16	9	2	1
36–40	2	9	3	2	0
41–45	4	5	5	0	0
46–50	4	1	1	0	0
>50	1	6	2	1	0

4.1.3 Use of AI in strategic communication management

According to the students surveyed, AI in strategic communication management mainly contributes to decision-making (n=113). This finding suggests that AI is predominantly conceived as a strategic support technology that contributes to organizational efficiency, process automation, and the anticipation of audience trends and behaviors (Figure 2). Consequently, AI, beyond being a technical tool, is configured as a strategic resource that structures and guides communication planning and management processes.

Figure 2. Areas of perceived value of AI in Strategic Communication



Secondly, its importance and benefit focus on data analysis (n=57), highlighting the recognition of the value of AI in processing large volumes of information (data) and using this to generate relevant inputs for audience segmentation, digital positioning optimization, and content personalization. This result supports the central role of data-driven working models in contemporary marketing and communication, suggesting that students associate AI with data-driven decisions, reducing improvisation and increasing accuracy.

Measurement (n=29), although less frequent, is an element that reinforces the idea that students value AI as a tool for media monitoring and results analysis. This suggests that students recognize the importance of evaluating performance before making decisions, which is a fundamental principle of strategic management.

Finally, the category "other applications" (n=31) suggests that there are other additional uses for AI, although these are less associated with strategic decision-making.

4.1.4 Perceived value of AI for data analysis, visualization and strategic decision making

To determine the perceived value of AI for data analysis and visualization and strategic decision-making in the field of communication, five statements were evaluated, which students rated from 1 to 5, where 1 equals "Strongly disagree" and 5 equals "Strongly agree."

As can be seen, Table 3 shows a highly positive assessment by students regarding the use of AI as a support in information analysis processes for decision-making in the context of communication and marketing. 4.22 and 4.34 are the means for the five proposed variables, with a standard deviation of less than 0.85, which shows a high level of agreement and low dispersion, indicating a consensus among the interviewees.

Table 3. Percentage distribution and descriptive statistics
Note. TD= Strongly disagree; D= Disagree; N= Neutral; A= Agree; TA= Totally agree.

Affirmation	TD %	D %	N %	A %	TA %	Media	DE
Improve team efficiency by automating repetitive and operational tasks	0.87	0.87	13.48	34.78	49.13	4.32	0.81
Automate marketing campaigns, segment audiences and personalize messages	0.87	2.17	13.04	40.00	43.48	4.24	0.83
Segment the audience more effectively	0.87	0.43	17.83	36.96	43.48	4.22	0.82
Perform predictive analysis to evaluate campaigns and adapt to trends	0.87	0.43	17.39	36.09	44.35	4.24	0.82
Measure and analyze data to make informed decisions	0.43	1.30	11.30	37.39	48.70	4.34	0.77

The percentage distribution shows that the sum of the categories "Agree" and "Strongly agree" exceeds 80% of the total items, with the highest value being achieved by the statement that indicates: Artificial intelligence can help measure and analyze data for informed decision-making (86.09%), which also has the highest mean (M=4.34; SD=0.77). This result suggests that study participants recognize the strategic role of AI as a support in decision-making processes, placing greater value on the functions provided by AI in the strategic sphere than in the operational sphere.

4.2. Institutional vision regarding the integration of AI in the curriculum

To determine whether communication programs are incorporating AI into their academic plans, a reflective thematic analysis with an inductive approach was applied, consisting of the following phases proposed by Braun and Clarke (2006): familiarization, initial coding, generation of review themes, definition, and analytical writing. The analysis was based on seven semi-structured interviews with directors/coordinators of Communication programs, with the aim of identifying patterns of meaning around the incorporation of AI and emerging technologies into the curriculum.

The analysis led to the identification of four interrelated central themes that describe a process of progressive integration of AI into Communication programs, as shown in Table 4.

Table 4. Map of themes and subthemes

Central theme	Subtopics
Transversal and progressive integration	Transversality, umbrella subjects, microintegrations
AI as a support tool	Human judgment, efficiency, process accelerator
Reinvention of the teaching role	Self-training, experimentation, reflexivity
Gradual institutionalization	Reforms in progress, bureaucratic times

4.2.1 Transversal and progressive integration

The interviewees point out that the incorporation of AI into degree programs is mainly carried out through independent subjects: "We include AI-based content for research, writing, and audiovisual production in all our classes." This strategy shows a form of integration distributed across different educational spaces, which is applied in specific practical areas. From this interpretive perspective, this pattern constitutes a model of progressive, flexible, and contextual integration, in which the use of AI stems from specific pedagogical experiences that are gradually incorporated into the curriculum.

4.2.2 AI as a support tool

A second axis of analysis refers to the way in which actors discursively construct the role of AI in communication training.

The testimonies analyzed consistently configure AI as an instrumental resource subordinate to professional judgment: "It is a support tool, not a replacement for your journalistic judgment." This argument defines the symbolic boundary between technology and human responsibility, in which emerging technologies are seen as a means to optimize processes, but not as an autonomous agent for production. This view reinforces the humanistic conception of the academic training of communicators, which is aimed at preserving the centrality of critical thinking, ethics, and decision-making.

4.2.3 Reinvention of the teaching role

The third axis focuses on the role of teachers and explains how AI is perceived as a process that directly challenges teachers, who are aware of the need to transform their role. "It is a challenge for teachers to reinvent ourselves." This finding suggests a reconfiguration of the academic role, moving from the transmission of content to functions of mediation, pedagogical design, learning support, among other activities. In other words, teachers emerge as key strategic players in the challenge of AI literacy in university classrooms, which must focus on the meaningful appropriation of technology, capable of articulating pedagogy, innovation, and ethical reflection.

4.2.4 Gradual institutionalization

The last axis focuses on formal curricular changes. Those interviewed state that these changes advance at a slower pace than pedagogical practices. "Changing the mesh takes longer." This gap reveals a gap between innovation driven from the classroom and academic governance processes. In this sense, the institutionalization of AI is configured as a gradual and disputed process, in which the transformations must emerge from the microcurricular level and only later could they be consolidated at the structural level.

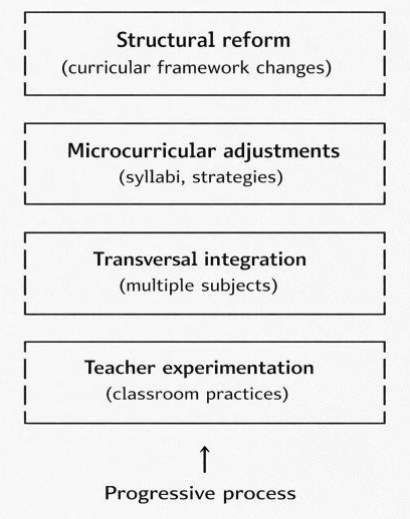
Table 5 shows a comparative synthesis of the views of the interviewees around these four axes analyzed, showing that transversality and the conception of AI as a tool appear as the most consistent patterns.

Table 5. Presence of themes per interviews

Interview	Transversality	AI as support	Teaching reinvention	Curriculum reform
E1	✔	✔	—	—
E2	✔	✔	—	✔
E3	✔	✔	✔	✔
E4	✔	—	✔	✔
E5	✔	✔	✔	✔
E6	—	—	—	✔
E7	✔	✔	—	✔

Based on the analysis, a model for the progressive integration of AI into communication degree programs is proposed, representing the four levels.

Figure 3. AI progressive integration model



The model represents an upward evolutionary process of AI incorporation that begins, as shown in Figure 3, with teaching experimentation at the classroom level, progresses toward cross-curricular integration in multiple subjects, is subsequently consolidated through curricular adjustments in syllabi and pedagogical strategies, and finally culminates in structural reforms of the curriculum. This proposal illustrates the coexistence of different levels of integration and highlights the gradual, non-linear, and contextual nature of the process.

5. Discussion

The research findings show that most communication students have low or moderate levels of familiarity with AI applied to strategic communication management. These results confirm the existence of asymmetric adoption of emerging technologies, since, despite the advancement, growth, and availability of tools for strategic organizational processes, installed capacity, understood as AI skills, usage criteria, and governance, is not developing at the same level (Duan et al., 2019; Weller & Lock, 2025). This confirms the existence of a critical gap in the knowledge and use of AI in strategic communication, which not only automates tasks but also reconfigures decisions on segmentation, reputational analysis, personalization, social listening, among other strategic-level activities (Galloway & Swiatek, 2028; Shabangu, 2024).

Likewise, from the low level of the AI Literacy Index (2.33), we can infer the quantitative indicator of a broader phenomenon, as there is a significant gap between the instrumental potential of AI and its effective professional appropriation. However, this research evaluates familiarity with the use of AI tools, which, as noted in previous studies (Long & Magerko, 2020; Ng *et al*., 2021; Chiu *et al*., 2024), this does not equate to the acquisition of a skill, since knowing a technological tool and having used it occasionally does not guarantee mastery in terms of understanding its limitations, biases, reliability, or the ability to justify decisions assisted by these tools.

Regarding the generational gap in AI literacy, the findings confirm international evidence reporting higher levels of literacy in younger cohorts, consistent with their more recent educational trajectories and greater exposure to digital environments (Yang et al., 2025; Hornberger et al., 2025), although advanced levels remain in the minority, as evidenced in the sample studied. This information provides insight into how informal learning tends to strengthen the usability of tools, but not necessarily the more advanced dimensions such as critical thinking, which is so necessary for communication management in organizations. In practice, its relevance focuses on high-impact decisions that require the application and evaluation of models, ethics, transparency, and effective human-machine collaboration (Chiu *et al.*, 2024; Xu *et al*., 2025).

With regard to gender, relatively similar patterns are observed, with slight variations. This result suggests that limitations in AI literacy are less due to individual demographic differences and more to structural factors related to training, institutional access, organizational policies, innovation culture, opportunities for supervised practice, etc. This view is consistent with the findings of other studies that indicate that the implementation of AI in the fields of public relations and communication is conditioned by organizational dynamics, such as lack of leadership and governance, diffuse distribution, among others, rather than by isolated demographic variables (Weller & Lock, 2025; Harris & Jhon, 2025).

The results also show that students consider the use of AI in strategic communication management to revolve around three essential activities, weighted as follows: 1) Decision-making, 2) Data analysis, and 3) Measurement. In other words, AI is perceived as a strategic resource for decision-making, which coincides with other studies (Duan *et al*., 2019) that consider these emerging technologies to be key facilitators for transforming large volumes of data into actionable knowledge and for improving the accuracy, efficiency, and confidence in all reasoned decision-making processes (Kovari, 2024). Likewise, the importance given to data analysis and measurement, albeit to a lesser extent, confirms that respondents recognize and value the need to evaluate results and monitor processes as a basis for decision-making. This is in line with studies by Weller y Lock (2025), Neri *et al*. (2025); Gubala & Meloncon (2022), who highlighted the impact of automation, analytics, and data visualization on strategic planning, management, and evaluation.

Future communication professionals assign high strategic value to AI in relation to functions directly associated with decision-making, such as data analysis, process automation, and strategic planning support. As noted above, the averages of the variables analyzed are above 4.2 and show low dispersion of responses, confirming a consensus position that suggests AI is perceived as a functional and strategic tool, rather than being pigeonholed solely as a technological resource. This finding is consistent with approaches that conceive of AI as a central element in contemporary decision-making contexts, where its value lies in its ability to process large volumes of information and reduce uncertainty (Duan *et al*., 2019; Kovaro, 2024).

The pattern of results shows that students value AI primarily for its ability to analyze data and support informed decisions, as well as for its contribution to process automation and optimization, which shows that it is perceived as a resource for improving efficiency and effectiveness in decision-making processes. The slightly lower rating of items associated with segmentation suggests a cautious and critical attitude toward the accuracy of algorithmic systems, consistent with current approaches to AI literacy (Long & Magerko, 2020; Ng *et al*., 2021; Chiu *et al*., 2024).

The results derived specifically from interviews with directors show that AI literacy is promoted in university classrooms through progressive and cross-cutting integration processes within curricula, rather than through formalized curricular structures. The incorporation of AI content and practices in subjects such as strategic planning, journalism and data research, multimedia production, and digital marketing, among others, is a common pattern with previous studies that indicate that AI literacy in higher education tends to emerge first from specific experiences before becoming established as an institutional competency (Barrios & Caraza, 2025: Ng *et al*., 2021; Yang *et al.*, 2025). Along the same lines, the findings are consistent with frameworks that conceive of AI literacy as a multidimensional construct linking technical knowledge, critical understanding, and contextual application (Chiu *et al.*, 2024; Long & Magerki, 2020; Hackl *et al*., 2025). Furthermore, it is suggested that familiarity with AI tools, from a managerial perspective, is in its early stages, with dependence on teaching innovation initiatives.

Directors/coordinators conceptualize AI as a tool that primarily supports strategic decision-making rather than a substitute for professional judgment, which converges with studies that emphasize the importance of human-machine collaboration for assertive decision-making processes (Duan *et al*., 2019; Kovari, 2024; Xu *et al*., 2025). In the field of strategic communication, positive assessments of AI are reported, conditional on ethical and critical control by professionals (Duque-Rengel & Puertas-Hidalgo; 2024; Shabangu, 2024; Weller & Lock, 2025). However, the gap identified by academic leaders in communication programs coincides with other research indicating that institutional educational planning is in a transitional phase and reinforces the need to move toward curricular models that are more consistent with the demands of today's labor market.

6. Conclusions

The findings of the research allow us to conclude that AI literacy aimed at data analysis and strategic decision-making is not yet fully consolidated. Although students consistently recognize the value of this emerging technology as a support for decision-making in the field of communication, there is a dissonance between the high valuation of AI and their low operational familiarity with it. This confirms the existence of a training gap in university classrooms, which limits the transition from exploratory/instrumental use to the strategic integration of AI in communication processes. Consequently, it is evident that the appropriation and empowerment of these technologies does not depend solely on their accessibility, but on the intentional development of skills that articulate three key areas: technical understanding, critical thinking, and contextual application.

The study also showed the contrast between student perceptions and the views of communication program administrators, who agreed that universities in Ecuador are in a transitional stage, where AI is beginning to be integrated based on specific experiences, but without a robust curricular institutionalization. This reality reinforces the urgent need to move towards training models that explicitly

integrate AI literacy as part of the structural components of communication training. In this context, it is ultimately concluded that only through coherent curriculum planning will it be possible to strengthen the profile of the communicator required in today's rapidly evolving technological environment.

Although this study provides a realistic overview of the subject under investigation, it has limitations, notably its cross-sectional design and predominant use of self-perception measures, which may interfere with the establishment of causal relationships and may also lead to bias in the interpretation of results. Therefore, it is recommended that future research consider longitudinal designs that allow for the observation of the evolution of AI skills over time, as well as the development of comparative studies between countries, which provide a globalized view of the issue in the field of communication.

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