Rethinking digital literacy with AI: experiences and meanings in secondary education. Salta-Argentina

Pensar la alfabetización digital con IA: experiencias y sentidos en el nivel secundario. Salta-Argentina

Pensar a alfabetização digital com IA: experiências e sentidos no ensino secundário. Salta-Argentina

María Rosa Chachagua
Universidad Nacional de Salta
Argentina

Cintia Rosalía Ortega Portal
Incopos-Conicet-Universidad Nacional de Salta
Argentina

Abstract: This article presents initial findings from the CIUNSa Research Project No. 2897/0 Type A, titled "A study on AI and the integration of digital technologies in secondary and higher education in the city of Salta: public policies, inequalities, and challenges (2024-2027)." Within this framework, we analyze experiences and perceptions related to AI among secondary school students in Salta during 2025, aiming to reflect on Media and Information Literacy from pedagogical, ethical, and political dimensions. Drawing from a critical perspective on technology (Feenberg, 2005), we propose a mixed-method approach based on surveys, problematizing the role of digital technologies in the classroom and the pending role of state policies.

Keywords:
Artificial intelligence, technologies, uses, education, Salta

Resumen: Este artículo presenta avances iniciales del proyecto de investigación CIUNSa Nº 2897/0 Tipo A, titulado "Un estudio sobre la IA y la integración de las tecnologías digitales en el nivel educativo medio y superior de la ciudad de Salta: políticas públicas, desigualdades y desafíos (2024-2027)". En este marco, analizamos experiencias y sentidos en torno a la IA en estudiantes de nivel secundario de Salta durante 2025, con el objetivo de reflexionar sobre la Alfabetización Mediática e Informacional desde dimensiones pedagógicas, éticas y políticas.

Desde una perspectiva crítica de la tecnología (Feenberg, 2005), proponemos un abordaje mixto a partir de encuestas, problematizando el rol de las tecnologías digitales en el aula y las políticas estatales aún pendientes.

Palabras clave:
Inteligencia artificial, tecnologías, usos, educación, Salta

Resumo: Este artigo apresenta os avanços iniciais do projeto de pesquisa CIUNSa Nº 2897/0 Tipo A, intitulado "Um estudo sobre a IA e a integração das tecnologias digitais no nível educacional médio e superior na cidade de Salta: políticas públicas, desigualdades e desafios (2024-2027)". Nesse contexto, analisamos experiências e sentidos em torno da IA entre estudantes do ensino médio de Salta durante o ano de 2025, com o objetivo de refletir sobre a Alfabetização Midiática e Informacional a partir de dimensões pedagógicas, éticas e políticas. A partir de uma perspectiva crítica da tecnologia (Feenberg, 2005), propomos uma abordagem mista baseada em questionários, problematizando o papel das tecnologias digitais na sala de aula e as políticas estatais ainda pendentes.

Palavras-chave:
Inteligência artificial, tecnologias, usos, educação, Salta

1. Introduction and Background

Artificial intelligence (AI) refers to computational systems capable of interacting with the environment through functions traditionally considered inherent to human intelligence, such as speech recognition, visual perception, and autonomous decision-making (Luckin et al., 2016). Since its origins in the 1950s, AI has undergone sustained evolution, with exponential growth beginning in the 2000s, driven by access to large volumes of data and advances in machine learning algorithms (Mijwil, 2015). Currently, its applications span multiple fields, including education, where its potential to transform pedagogical practices, promote personalized teaching approaches, and redefine the links between knowledge, technology, and subjectivity is being explored.

In this sense, AI poses several challenges for the social sciences due to its multifaceted nature and profound implications for various aspects of human life. According to Costa et al. (2023), AI is not simply a technology, but rather a meta-technology — a general-purpose technology that operates and regulates other technologies (Floridi, 2011). This implies that AI is embedded in the complex sociotechnical systems that shape our society, influencing the economy, politics, and culture in a pervasive way.

The emergence of AI in education has generated significant transformations in teaching and learning practices. From data analysis to facial recognition, AI has become a cross-cutting tool that redefines modes of pedagogical interaction (BID, 2022). In this context, the CIUNSa research project No. 2897/0 Type A, entitled "A study on AI and the integration of digital technologies in secondary and higher education in the city of Salta: public policies, inequalities, and challenges (2024-2027)," aims to investigate how secondary and higher education teachers and students in Salta integrate these technologies, and what public policies support or limit these processes.

In this article, we specifically address the preliminary results obtained from surveys conducted among students at two public educational institutions in Salta City. These surveys constitute a first empirical approach that enables us to identify perceptions, uses, and challenges associated with the use of digital tools and AI in specific educational contexts, providing key input for the critical analysis of public policies on this topic.

The rise of AI in education poses urgent challenges for the development of public educational policies, particularly in contexts marked by structural inequalities, such as those found in the city of Salta. In this context, it is essential to investigate how high school students appropriate—or fail to do so—these technologies, under what conditions they do so, and what tensions emerge between the promises of innovation and institutional realities. This work follows this line, seeking to provide empirical evidence that allows us to rethink public policies from a critical perspective.

Furthermore, it should be noted that the team we have been working with has a sustained track record in these topics, through successive projects funded by CIUNSA and CONICET, as well as undergraduate and graduate theses that have addressed the relationship between technology, education, and inequalities in the province of Salta. In particular, the team has conducted research on public policies implemented during the pandemic and in its aftermath,

highlighting national and provincial programs focused on digital inclusion, educational reconnection, and teacher training. Likewise, studies have been conducted on virtualization experiences at the National University of Salta, educational radio stations, youth and digital citizenship, education in contexts of confinement and rural areas, and access to ICTs from a gender perspective. This background establishes a solid precedent and enables us to situate the present study within a line of critical continuity committed to the democratization of knowledge and educational transformation at the regional level.

Some questions that emerge from this problematization are: What should be the role of the State in integrating AI in education? Should it consolidate itself as an agent of development of "advanced" digital tools to reach all students as a public good that guarantees their right to education? Moreover, in this sense, what role is the private sector playing? Regarding specific uses, we ask: How can AI be integrated into the educational system? What do teachers and students think about this possible integration? What challenges and tensions? What communication and educational challenges, tensions, or possibilities do they raise within the education system?

This article begins with a general outline of the theoretical framework that supports the research. Next, we discuss the integration of artificial intelligence into student practices, along with a critical reflection on current public policies in Salta. In the following section, we provide an exploratory and general overview of the initial findings obtained from the surveys. Finally, we present the conclusions and offer some reflections on digital literacy.

2. Theoretical Framework

The relevance of this study is both theoretical and contextual. First, we propose approaching the integration of digital technologies in education from a communication and education perspective. We understand that these are not neutral or merely instrumental phenomena, but rather as social practices influenced by power relations, cultural meanings, and political disputes. From a contextual perspective, the study is situated in the city of Salta, which enables a situated interrogation of the dynamics of technological appropriation, the material and institutional conditions that enable or restrict them, and the actual scope of public policies in contexts marked by structural inequalities.

2.1 Technology as a Social Practice

The theoretical mapping begins from a critical perspective, that is, from the understanding that technologies are not neutral or one-dimensional objects. Following Feenberg (1991, 2005), we understand that technological practices are configured in the framework of social and historical relationships that subjects weave with artifacts. Along these lines, Zukerfeld (2014) argues that digital technologies are products of material and symbolic processes that mobilize knowledge objectified in devices, platforms, and content, as well as norms, values, languages, and intersubjective representations. Raymond Williams (1992) reinforces this view by considering that all technology is a social creation, influenced by the production conditions of its context of emergence. The notion of appropriation, as defined by Thompson (1998), refers to the process by which social groups interpret and give meaning to cultural artifacts. Winocur (2007) deepens this idea by pointing out that technological appropriation occurs from a specific habitus, in dialogue with previous experiences and specific symbolic capital. In this sense, understanding the appropriations of technologies involves analyzing the needs, expectations, abilities, and anxieties that individuals project onto them (Chachagua, 2019), as well as the meanings they construct around their use. This perspective is key to making more precise diagnoses of the real possibilities for development and digital inclusion (Winocur, 2007).

2.2 Communication/Education as a Transdisciplinary Approach and Media and Information Literacy

When discussing Communication/Education, we adopt a perspective that does not seek to unify the two disciplines, but instead recognizes the power of a transdisciplinary approach constituted through the critical exchange of theoretical and methodological frameworks (Da Porta, 2004). As Huergo (1999) point out, the use of the slash in Communication/Education implies a commitment to recovering processes of connection, expression, and liberation, recognizing the historical, sociocultural, and political contexts in which problems and theoretical productions emerge. This perspective enables us to analyze the production of subjectivities (education) and meanings (communication) as inseparable dimensions of social practices, while also serving as tools for critical intervention in the field of public policy (Morabes y Martínez, 2019).

Along these lines, we must ask ourselves: what place does the teaching of digital technologies occupy in educational settings? What public policies are implemented to enable their genuine integration? In this regard, we adopt a position on Media Information Literacy (MIL) as a set of essential skills for promoting critical thinking in a constantly evolving digital context (UNESCO, 2023). In this way, we adhere to other early perspectives on the issue of media in the school environment, such as Buckingham's (2006), who pioneered the introduction of terms like Media Education. This author invited us to question the merely instrumental use of technology, considering students' knowledge and cultural consumption. Furthermore, he promoted a participatory and critical stance among teachers regarding its use. The inclusion of technologies in the classroom has been the subject of multiple discussions, from a focus on "technologies for education" in recent decades to a positioning around articulating experiences linked to the media and the school environment, based on the recognition of the difference between the two and an appreciation of their possible integrations" (Nakache, 2000, p. 9). Even with great efforts, we believe that instrumental perspectives on the binomial (trinity) of communication, technologies, and school continue to exist (Huergo, 2007). It is necessary to understand the importance of MIL from perspectives that make the educational/communicative role of digital technologies more complex, in line with the educational, cultural, and political issues they entail.

Therefore, we consider digital literacy as a universal citizen right, intertwined with instrumental, ethical, and social dimensions, driven by a quest for the democratization of knowledge. In the words of Landau et al. (2007):

> It encompasses an instrumental dimension, linked to the mastery of tools and information in digital media, an ethical dimension related to access to and the public and private uses of information, and a social dimension focused on the most immediate contextual needs and the democratization of access to and the production of information. (p. 9)

In Argentina, since approximately 1990, a series of public policies have been implemented to integrate technologies into the classroom. However, it was not until 2010, with the creation of the Conectar Igualdad Program, based on the 1:1 model (one computer per student), that access to digital literacy for teachers and students was conceived from a universal perspective. Some programs were subsequently promoted, but with less impact (Chachagua, 2021). We currently find ourselves in a context of setbacks in addressing MIL, mainly due to the promotion of state initiatives (Ortega Portal y Chachagua, 2024).

2.3 AI in Education: Promises, Tensions, and Challenges

Now, the challenge is to consider how to propose policies for incorporating artificial intelligence technologies into educational settings. We know that AI presents itself as a new node of tension and opportunity. Defined as "computational systems designed to interact with the world using capabilities that we normally think of as human" (Luckin et al., 2016), AI has advanced significantly thanks to the development of machine learning and the massive availability of data (Pedró et al., 2019). Its impact on education is increasingly visible, from the use of data analytics and adaptive platforms to facial recognition systems and the automation of pedagogical processes (Jara & Ochoa, 2020). However, this progress is not without controversy. As Tuomi (2018) warns, it is necessary to critically debate the pace and depth of this transformation, as well as its ethical, pedagogical, and political implications.

Learning personalization is one of the most highlighted opportunities (Li & Wong, 2023; UNESCO, 2019; Zawacki-Richter et al., 2019). It involves adapting content, pace, and strategies to each student's prior knowledge, interests, and goals (Bulger, 2016). Serrano and Moreno García (2024) caution that this promise must be critically examined, avoiding recycled discourses that fail to transform actual practices. "It is about respecting the fundamental principles of teaching and learning, enabling the majority of students to follow their own learning path, considering their prior knowledge, preferences, motivations, or goals" (Serrano & Moreno García, 2024, p. 4).

Adaptive learning, driven by algorithms and data analysis, enables content and difficulty to be adjusted in real-time according to student performance. Wang et al. (2023) define it as “a method that continuously modifies content, difficulty, and resources based on student interactions and progress, supposedly ensuring personalized learning that fosters individual effectiveness and development” (Wang et al., 2023, cited in Serrano and Moreno García, 2024, p. 4). This approach offers advantages such as attention to diversity, immediate feedback, and early detection of difficulties, but also poses challenges in terms of infrastructure, teacher training, and equity.

2.4 Ethics of AI in Education

The ethics of AI in education is a key dimension. The use of this technology requires legal frameworks that guarantee its fair, inclusive, trustworthy, and transparent use. According to

UNESCO (2023), the link between AI and education is manifested in three key dimensions: learning with AI (through its use in classrooms), learning about AI (understanding its technologies and foundations), and preparing for AI (developing critical citizenship aware of its impacts). In this sense, ethics should not be an afterthought, but rather the foundation upon which educational policies and systems are built.

This topic is receiving increasing attention from researchers worldwide (Boddington, 2017; Coeckelbergh, 2021; Floridi, 2022), as well as from international organizations, academic institutions, and technology corporations. Currently, much of the effort is focused on developing ethical codes that enable the identification and operationalization of the values and principles that should guide the responsible development and use of AI. In recent years, multiple initiatives have emerged in various countries, with proposals aimed at establishing regulatory frameworks, recommendations, and ethical standards. However, this abundance of codes has been highlighted as a potential obstacle, as it can lead to confusion and fragmentation in the interpretation of ethical principles (Danaher & Sætra, 2022; Floridi & Cowls, 2021). Despite this, many of these documents share fundamental principles—such as fairness, transparency, accountability, and privacy, among others—albeit with emphases and nuances that respond to diverse cultural, social, and political contexts. This partial convergence suggests the possibility of moving toward global ethical frameworks that, without losing local sensitivity, promote AI governance centered on human rights and the common good (Alonso Rodríguez, 2024).

2.5 Inequalities and Digital Citizenship

This work recognizes that we are facing distinct and diverse inequalities when discussing the integration of digital technologies in the educational field. Therefore, we approach inequalities linked to the use of technologies from a relational and multidimensional perspective (Reygadas, 2004). We understand that this is not only related to access, but also to the impact of other diverse inequalities (ethnic, class, status, gender, disconnection, among others) that affect the exercise of the right to education. Thinking about digital inequalities as the confluence of multiple asymmetries is possible if we understand that MIL is influenced by diverse actors: "governments, non-governmental organizations, educational institutions, large technology companies, including social networks, search engines, and video platforms" (Bacher, 2024, p. 15).

At the same time, and based on the premise that artificial intelligence is not a neutral computational tool, it is essential to consider the different elements involved in its analysis. AI should be understood as "systems integrated into social, political, cultural, and economic worlds shaped by humans, institutions, and imperatives that determine what they do and how they do it" (Crawford, 2022, p. 13, cited in Bacher, 2024).

Like Bacher (2024), we understand that "AMI is presented as an essential tool for promoting human rights and strengthening citizen participation in a diverse region" (p. 11). In this regard, it facilitates the promotion of human rights. It democratizes access to information and knowledge production to the extent that individuals and groups can actively participate to advocate for change in their communities. This perspective is related to the approaches that various international experts have been putting forward regarding the concept of media and information literacy, no longer solely as a set of technical skills, but also including a cognitive and socio-emotional dimension and the ability to solve problems in the digital environment (Martínez-Bravo et al., 2020, as cited in Ilomäki et al., 2023). Some authors prefer to refer to Critical Digital Literacies (CDL) (Ilomäki et al., 2023), as they allow us to understand the set of digital competencies that include both individual and collaborative aspects of learning.

The CDL framework promotes knowledge of the principles of digital technology and the ability to act as producers and creators of content, not only for the school environment, but also through the meaningful use of digital services and tools in everyday life and at work. As Ilomäki et al. (2023) point out:

> Critical digital literacies entail a range of complex skills, competencies and dispositions which include: understanding the principles of digital technology and being able to act as producers and makers; using the digital services and tools in a meaningful way in one's daily life and for studying and work; working with digital technology in a creative way, alone and in collaboration with others, including online collaboration; understanding the use and implications of digital data, such as for learning, e-commerce or offering services; under-standing the role of digitality in various issues in society and culture, such as democracy, in-fluencing or activism; understanding the principles and ethics of online communication and collaboration; knowing how to participate online and understanding an individual's responsibilities for everyone's well-being, and understanding issues relating to digital presence and identity, knowing how to protect oneself and taking responsibility not to participate in harmful or even illegal online activities. (p. 17)

The CDA perspective also explores the importance of understanding the ethical principles of online communication and collaboration, as well as the management of identity and digital security.

Accordingly, it becomes more than pertinent to position ourselves in terms of digital citizenship as a fundamental dimension of MIL.[1] In the context of school education. Ilomäki et al. (2023) analyzed policy documents related to critical digital literacies from 2016 to 2020 in international organizations such as the European Commission, UNESCO, UNICEF, and the European Union. The study examines how digital citizenship is a central dimension of these documents, which prioritize the future. In addition to addressing the skills, knowledge, and attitudes necessary for responsible and critical participation in the digital society—including legal, ethical, consumer, and equity aspects—the documents place particular emphasis on a critical understanding of the relationships between power and social constructions in the digital environment.

Cobo (2019) had previously proposed that digital citizenship allows the educational community to review the dynamics of teaching and learning with technology, considering adequate performance in multiple digital environments in terms of participation, respect, exchange, collaboration, and coexistence with others. Likewise, he shares previously presented guidelines, as noted by Ilomäki et al. (2023), focusing particularly on respectful online behavior and participation in digital civic practices (Jones and Mitchell, 2015, cited in Cobo, 2019).

To this end, Cobo (2019) proposes a content-container-context model, from which he proposes informed and critical digital citizen participation. The interaction between what is learned (content), how it is learned (container), and where/how it is learned (context) contributes to the subject's ability to construct new socially relevant knowledge.

3. Methodology

As previously mentioned, this work is grounded in a critical perspective on technology (Feenberg, 2005), which views the integration of digital technologies as deeply situated social, cultural, and political practices. Far from a technocentric perspective, we aim to problematize the inequalities, tensions, and possibilities that arise from the use of AI in educational settings.

The methodological approach adopted is a mixed-methods approach, understood as a research strategy that allows for the articulation of diverse forms of data construction (Creamer, 2017) through the triangulation of qualitative and quantitative methods (Forni & De Grande,

[1] Note that we primarily use the term Media and Information Literacy (MIL), although we also refer to Digital Literacy (DL) and Critical Digital Literacies (CDL), in order to encompass and account for the multiple conceptualizations, updates and debates existing on the subject in question.

2020). This responds to the need to capture the complexity of technological appropriation processes in education, particularly in the context of AI applications, by combining the breadth of quantitative data with the interpretive depth of qualitative approaches.

Within this framework, we conducted surveys as the first step in this research. We hope to conduct semi-structured interviews in a second phase to explore the results in more depth. While surveys are a technique inherent to quantitative research, we decided to interpret their results from a qualitative-interpretative perspective (Thompson, 1991; Sautu et al., 2005). Thus, we employed a collective case study design (Stake, 1998), which involves comparing multiple institutional cases, not for statistical generalization purposes, but rather to gain a deep understanding of the particularities and variations of the phenomena studied. This strategy allows us to identify both regularities and significant differences between institutions.

The surveys designed and implemented for this study aim to reveal the meanings, uses, and conditions of access to digital technologies and artificial intelligence in education from the perspective of students at public institutions in the city of Salta.

Two hundred twenty surveys were conducted, addressing three main dimensions: access to devices and the internet, the meanings constructed around AI, and the specific uses of these tools in the learning process. We asked students if they had heard of AI, how they perceived it in schools, what tools they used, how often, and for what activities. We also asked them about the difficulties they faced and their suggestions for better integrating these technologies in their institutions.

3.1 Validation and Analysis Procedures

To ensure the validity of the instrument, a pilot test was conducted at an institution not included in the main study. The purpose was to adjust the wording of the questions, verify the relevance of the dimensions, and ensure student understanding. The surveys were reviewed by members of the research team on several occasions and administered with teacher support to facilitate informed participation.

Data analysis was conducted at two levels:

- Quantitative: Descriptive statistical tools (frequencies, percentages, simple cross-referencing) were used to identify general patterns in the access, use, and

perception of AI. These data enable a comparative overview across institutions and the identification of significant gaps.

- Qualitative: Open-ended responses were coded thematically through content analysis, following inductive criteria. Emerging categories linked to the meanings attributed to AI, user experiences, and proposals for improvement were identified. This analysis was conducted with the support of specialized software (Atlas. Ti), which made it possible to systematize the discourses and visualize relationships between categories.

Triangulation between the two approaches allowed for a comparison of results and enriched interpretation, taking into account both the material conditions and the symbolic and pedagogical dimensions that mediate the incorporation of AI into the Salta education system.

3.2 Institutional Context

The work was carried out in two educational institutions:

- Secondary School No. 5024 Sargento Cabral: Located in Villa Mitre, it offers three class shifts (morning, afternoon, and evening).
- Secondary School No. 5169: Located in Barrio Siglo XXI, in the southwest area of Salta, it offers classes in the afternoon.

We collaborated with two public secondary schools in Salta, situated in neighborhoods affected by socio-structural issues. One of them is located in the southeast area of the city, where the highest population density is concentrated. The other institution is located in Villa Mitre, a neighborhood that, while not officially registered as a vulnerable area, borders other neighborhoods with high levels of precariousness, home to more than a thousand vulnerable families. These areas share characteristics such as irregular land tenure, a lack of basic services, and living conditions marked by social exclusion.

At both educational institutions, we have been working on various research/extension projects, as well as undergraduate and graduate theses, for several years. Furthermore, due to their geographical location and the multiplicity of stakeholders involved, with different backgrounds, ages, and socioeconomic situations.

4. Results

The results are organized around three dimensions: internet access, and the meanings and uses that school-aged youth in Salta are developing in relation to artificial intelligence.

The majority of students who participated in the survey were between 16 and 18 years old, indicating they were in their final years of secondary school. Almost all reported having access to the internet and some technological device, and only a small group—less than 8%—reported not having such access. At the same time, many stated that the devices they use are their own, and about a third reported having received computers through state programs such as Conectar Igualdad or Juana Manso.[2] This opens the door to reflecting on the real scope and continuity of these public policies.

Regarding students' understanding of AI, nearly 90% reported having heard of the topic, indicating a significant presence in their daily lives. When we asked them how they think AI is manifested in the educational field, the most frequent responses pointed to virtual assistants, chatbots, or applications that correct texts. However, a significant lack of knowledge also emerges because they do not know or are not sure exactly where AI fits into educational practices.

We were also interested in knowing how they feel about using these tools. Here, the responses were more diverse: half of the respondents were enthusiastic about their use, while 11% expressed concern, 12% said they were indifferent, and 26% said they had no opinion on the matter. This range of emotions reflects the complexity of the link between technology and subjectivity in the classroom.

Regarding the usefulness of AI in education, 85% consider it practical or very useful, while 15% perceive it as somewhat or not applicable at all. However, looking to the future, opinions are divided: 55% believe AI can bring about significant changes in education, while 45% do not. Of those who do believe there can be changes, they were asked how they imagine those changes. Five axes are proposed: changes in the way we study, impact on learning and

[2] Juana Manso was a Federal Plan implemented during 2020, in the context of the pandemic. This plan sought to establish a coordinated framework that would integrate the implementation of a federal digital platform, the provision of devices at the secondary level, the promotion of free software, data protection, the development of the national industry, and the production of quality open educational resources. However, it failed to consolidate or prosper.

thinking, transformations in the teaching role and educational materials, ambiguous or contradictory assessments, and transformative potential beyond the classroom.

A large portion of students indicate that the use of AI makes searching for and understanding content more flexible, as its potential makes information more accessible, saves time, and speeds up the completion of practical tasks. However, some warn that this ease of use can lead to becoming accustomed to less effort and developing more passive or dependent habits.

One of the students says, "I see it as them preferring to use that rather than read." Here, we observe a concern about the superficiality of learning processes, where the immediate access that AI allows may displace the effort required to read and construct meaning. Along these lines, another student comments, "It will generate a change in students, because many use artificial intelligence and when it comes to presenting or defending a project, they do not know how to express themselves or do not know the topic they are talking about, etc." In this case, the concern about the loss of autonomy and understanding of educational content is also reinforced. This perspective somehow suggests that "technology dependence" could weaken communication and argumentative skills.

On the other hand, a student says that educational change will come about "(...) when teachers are no longer needed." This statement responds to a more deterministic or dystopian view of digital technologies: "They will replace us." From another perspective, a student points out that "it is easier because it helps us understand things we do not know." Here, we observe a positive perception of AI as a tool to support the understanding of educational content. Finally, another student indicates that AI can "...improve education, work, and change society." This quote also projects a hopeful and transformative perspective of AI in education.

Most of the students surveyed indicate that they are already incorporating AI tools into their academic lives: 69% report using them occasionally, while 18% say they do so frequently. This indicates that the use of AI has become a common practice among students. When asked what they use it for, the most frequent responses were: searching for information, improving or correcting texts, and generating summaries. Regarding the most frequently mentioned applications, ChatGPT, Copilot, and Gemini stand out, which have become key tools for supporting study, writing, and organizing ideas. We also asked them about the difficulties they encounter when using AI in the educational field. The main barrier cited by students was that

their schools do not allow its use or that their teachers disagree with it. Some also point out that they are unsure how to use it effectively or that they distrust the reliability of the information.

In this regard, when we asked about how to improve the use of AI in schools, the majority of students suggested that its use should be permitted with a clear educational focus. One student stated, "Teachers should let us use it to understand topics." This highlights the need to establish conditions and limits to avoid excessive or thoughtless use of AI. "It should be used responsibly and not as a cheat," another student stated, referring to the importance of promoting clear "rules." Others value the use of AI, especially in complex subjects: "It could explain topics in better words so we understand them." Finally, several students propose integrating AI into pedagogy, meaning that they can use it critically and leverage it for group work, thematic research, or content creation.

5. Discussion

In presenting the theoretical framework for this work, we emphasize the importance of adopting a Critical Digital Literacy approach that acknowledges students' existing knowledge and takes into account the structural characteristics of educational systems. Regarding this, the data reveals a gap between what students think about AI and what they understand as a traditional educational practice. We then take as a starting point the question: How is AI integrated into the practices of students and teachers?

One of the most recurring questions that often arises when considering the inclusion of technology in the classroom is how teachers will utilize it, beyond simply addressing the interests of their students. In the case of AI, what we observed is that those with the most knowledge about it tend to be students; in the research we conducted, more than 80% indicated that it is a significant part of their daily lives. This problematization is also reflected in the voices of young people, who state that they use AI tools as a guide to solve specific tasks without teacher intervention. However, they express some fear of being discovered when doing so.

Regarding what we share, some authors have expressed that technophobic views still exist among teachers regarding the use of specific digital technologies (Cabero Almenara, 2016). Alternatively, in a context of uncertainty regarding how to use AI, it is not at all minor to return to the famous metaphor of apocalyptic or integrated, coined by Eco (2011). The truth is that,

beyond teachers' positions, it is necessary to consider the spaces that are enabled for their training and development in relation to emerging technologies.

In Argentina, in the post-pandemic context, we find ourselves facing a situation of hollowing out of public policy, particularly with Conectar Igualdad. Godoy (2019) suggests that from 2015 to 2019, the program underwent several changes. It was renamed the National Comprehensive Digital Education Plan (PLANIED) and then Learn Connected, with a strong focus on robotics. Furthermore, the focus shifted from the secondary level to preschool and primary education. This also strongly impacted the training of teachers at this level regarding the inclusion of technologies in the classroom. During the pandemic, teachers experienced the experience of connecting with ICTs through self-taught learning, as state initiatives failed to meet current demands (Ortega Portal, 2020).

At the same time, there are other interesting issues to discuss based on the findings. If we follow what UNESCO (2023) suggests about the link between AI and education, we should consider AI from three dimensions: 1. How learning is achieved with AI (through its use in the classroom); 2. How to learn about AI (understanding its technologies and foundations); and 3. How to prepare for AI (developing critical citizenship and awareness of its impacts). From what students share, we see that they have not yet recorded experiences using AI in the classroom, nor do they reflect critically on its use. If they are learning about the second dimension, they are approaching it from a somewhat ambiguous perspective.

About half believe that AI can bring about significant changes in education, and a similar proportion indicated that they are enthusiastic about its use. At the same time, 26% said they have no opinion on the matter. At the same time, they identify AI only as virtual assistants, chatbots, or text-correcting apps, revealing a lack of knowledge about other forms and fields in which it manifests itself. Here, we could revisit another discussion regarding the false illusion of believing that younger generations are technologically proficient, as we once coined the term "digital natives." Otherwise, we must consider how students learn about digital technologies in school. Therefore, there is a need to consider how MIL experiences can be enabled in the classroom to strengthen digital skills.

We prefer to think about connecting students with AI from a proactive perspective, such as digital citizenship. In this sense, we agree with Cobo (2016, 2019) that reflecting on "digital competence" necessitates a set of cross-cutting aspects. Today, a broader and more diverse range

of skills is required to navigate digital environments. These include aspects such as digital identity management, digital citizenship, understanding the rules of life in virtual environments, assuming responsibilities and rights, privacy management, regulating online time, and the ability to negotiate knowledge in virtual spaces, among others.

Fifteen years after the launch of the Conectar Igualdad Program in Salta, we can report significant progress and ongoing challenges. When this policy was introduced, access to personal devices, such as netbooks, was minimal among the working class. However, years after the implementation of this public policy, that number has increased, according to data from the National Survey on Access and Use of Information and Communication Technologies (ENTIC)[3] conducted by INDEC (National Institute of Statistics and Census). We can say that this public policy, at the time, managed to reduce the access gap, but not completely close it. This panorama invites us to reflect on the importance of continuity and the real impact of public policies. While achieving full "digital equality" in material terms (access) is challenging due to the rapid pace of technological advancement, we observed a more widespread and diverse ecosystem. For example, when we conducted fieldwork in the selected schools, it was surprising to see many students with their own netbooks, most of which were from Conectar Igualdad or Juana Manso, state programs, although not recognized as such by the students. What is a state program? What does it mean to have benefited from a state program? These were some of the questions that emerged during the surveys. This suggests some misinformation about the arrival and delivery of these devices. Furthermore, students noted that, although computers are present in the classroom, their use is often more closely tied to personal entertainment than to the specific tasks proposed by their teachers. Herein lies the persistent challenge, which we already mentioned in the golden years of Conectar Igualdad: simply distributing technological devices is not enough; it is necessary to ensure their pedagogical appropriation (Chachagua, 2019). Public policies must move toward a deeper integration of digital technologies, accompanied by training and the critical and responsible use of these technologies. Discussing digital inclusion implies not only access to devices but also the development of skills from an ethical and transformative perspective.

[3] https://www.indec.gob.ar/uploads/informesdeprensa/entic_10_15.pdf

6. Conclusions

This article aims to explore digital literacy in relation to AI, drawing on the experiences and perceptions of secondary school students in the city of Salta, Argentina, in 2025, based on initial findings from ongoing research. Based on previous problematizations and as a result of participating in a research project by the Research Council of the National University of Salta and other institutions, such as CONICET, we noted that other structural asymmetries, including educational, socioeconomic, and political ones, conditioned the inclusion of technologies in the city's secondary schools. Therefore, considering the incorporation of AI into educational practices also implies recognizing that its genuine inclusion is influenced by preexisting inequalities, which condition both access and the real possibilities of its pedagogical use.

What the study reveals is that digital literacy regarding AI in some cities in northern Argentina, such as Salta, presents significant outstanding gaps. As Bacher (2024) argues, it is essential to promote multi-stakeholder initiatives to identify, foster coordination, and make visible actions related to media literacy in the region. In the case of Argentina, digital inclusion policies in schools appear discontinuous, diffuse, and uncertain.

Regarding digital skills, the Salta students surveyed mostly use AI, although they are unaware of its potential. In other words, widespread use remains for basic functions such as searching for information or generating summaries. In some ways, we can say that they are missing out on the magnitude of possibilities offered by these tools.

One of the relevant characteristics of critical digital literacies is understanding the principles of digital technology and the ability to act as producers and creators of content. We can affirm, therefore, that students in the city of Salta present approximations regarding knowledge of AI, but not a critical problematization of it.

At the same time, it appears that we are regressing or finding ourselves in the initial stages of digital citizenship, as evidenced by the fear manifested in the experiences of using artificial intelligence in the classroom. In the words of Cobo (2019), the first strategies for promoting digital citizenship skills focused on the risks and security issues associated with internet use.

Among their main fears or resistances is the prohibition by teachers and educational institutions on using it due to concerns about plagiarism or unreliable information. This leads young people to use it in a "hidden" manner, impeding its pedagogical integration and limiting

opportunities for critical and supported learning. This is no coincidence; whenever a "new" technology enters the classroom, it usually sparks resistance. This has happened with educational television, computer labs, the Conectar Igualdad netbooks, cell phones, and now with AI. These situations reflect deep tensions between traditional teaching models and "new" ways of accessing knowledge. Rather than prohibiting it, the current challenge is to develop pedagogical frameworks that enable its ethical, creative, and situated use from our research project, we believe that integrating AI into education does not mean replacing the role of teachers, but rather enriching it, supporting young people in the development of critical digital skills that allow them to inhabit the present and build the future with autonomy and responsibility.

Although there are some state proposals[4] Regarding the integration of AI at the secondary level, we believe that biases persist in the way these technologies are approached from cultural, social, economic, gender, and other perspectives. This contributes to the widening of inequalities and limits the capacity to consider the role of technologies critically.

In contrast, we maintain that it is essential to consider approaches such as those proposed by critical digital literacy, which mainstream teaching practices and align with a situated approach that addresses contexts, in pursuit of developing more just and democratic societies in Latin America (Bacher, 2024). Furthermore, they should promote digital citizenship, starting with the production and creation of content, emphasizing the meaningful use of digital services and tools in everyday life and at work, and a critical understanding of power relations and social constructions in the digital environment (Ilomäki et al., 2023).

Finally, we support AMI as a fundamental human and citizen right, but we believe that its development cannot be conceived in contexts of precariousness or a shrinking state. Ensuring access and critical training requires sustained, comprehensive public policies.

[4] The Argentine Program for Educational Innovation with Artificial Intelligence (Paideia) is a national initiative that is expected to begin implementation this year. Its main objectives include teaching computational thinking and the development and application of AI (https://www.argentina.gob.ar/capital-humano/educacion/paideia/inteligencia-artificial-paideia). However, it does not yet specify lines of action or approaches for teaching by and between teachers and students.

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