
Digital technologies and subjectivities of education professionals: a critical study on the education of education professionals in Spain and Chile

Tecnologías digitales y subjetividades de las profesionales de la educación: un estudio crítico sobre la formación de profesionales de la educación en España y Chile

Tecnologias digitais e subjetividades das profissionais da educação: um estudo crítico sobre a formação de profissionais da educação na Espanha e Chile

Gustavo Herrera-Urizar¹

 <https://orcid.org/0000-0003-3546-8976>

Carla Juárez Martínez²

 <https://orcid.org/0009-0009-1221-6099>

Souly Rebecca Cisternas-Negrete³

 <https://orcid.org/0009-0006-4597-2569>

Abstract: This article critically examines the impact of digital technologies on the configuration of the subjectivities of education professionals during their university education in Spain and Chile. A qualitative approach was employed through structured interviews with 32 students enrolled in education-related degree programs at public universities. The analysis identifies five fundamental dimensions: everyday engagement with digital tools, imaginaries about the educational profession, pedagogical meanings of technologies, perception of artificial intelligence, and future professional projections. The findings reveal a field of tensions between technological fascination and critical awareness, innovation and precarization, agency and standardization. Drawing on biopolitical and psychopolitical theoretical frameworks, the study problematizes the effects of algorithmic rationalities on education and underscores the need for situated, critical digital literacy.

¹ Doctor en Políticas y Gestión Educativa (UPLA, Chile) y Doctor en Filosofía Contemporánea y Estudios Clásicos (Universitat de Barcelona). Profesor Lector del Departamento de Didáctica y Organización Educativa, Facultad de Educación, Universitat de Barcelona. E-mail: gustavo.herrera@ub.edu

² Máster en Psicopedagogía, Universitat Oberta de Catalunya. Graduada en Pedagogía, Universitat de Barcelona. E-mail: cjuarema7@alumnes.ub.edu.

³ Licenciada en Ciencias de la Educación y Egresada de Pedagogía en Filosofía, Pontificia Universidad Católica de Valparaíso. E-mail: soulycist@gmail.com.

Recommendations are provided to reimagine the education of education professionals as a space of resistance and emancipatory pedagogical construction in the face of growing educational techno-governmentality.

Keywords: Digital technologies. Subjectivity of education professionals. Education professionals training. Critical digital literacy.

Resumen: Este artículo examina críticamente el impacto de las tecnologías digitales en la configuración de las subjetividades de las profesionales de la educación durante su formación universitaria en España y Chile. Se empleó un enfoque cualitativo mediante entrevistas estructuradas a 32 estudiantes matriculadas en titulaciones del ámbito educativo en universidades públicas. El análisis identifica cinco dimensiones fundamentales: interacción cotidiana con herramientas digitales, imaginarios sobre la profesión educativa, significados pedagógicos de las tecnologías, percepción de la inteligencia artificial y proyecciones profesionales futuras. Los resultados revelan un campo de tensiones entre fascinación tecnológica y conciencia crítica, innovación y precarización, agencia y estandarización. A partir de marcos teóricos biopolíticos y psicopolíticos, el estudio problematiza los efectos de las racionalidades algorítmicas en la educación y destaca la necesidad de una alfabetización digital crítica y situada. Se proporcionan recomendaciones para reimaginar la formación de profesionales de la educación como espacio de resistencia y construcción pedagógica emancipadora frente a la creciente tecno-gubernamentalidad educativa.

Palabras clave: Tecnologías digitales. Subjetividad de las profesionales de la educación. Formación de profesionales de la educación. Alfabetización digital crítica.

Resumo: Este artigo examina criticamente o impacto das tecnologias digitais na configuração das subjetividades das profissionais da educação durante sua formação universitária na Espanha e Chile. Utilizou-se abordagem qualitativa com entrevistas estruturadas a 32 estudantes matriculadas em licenciaturas do âmbito educacional em universidades públicas. A análise identifica cinco dimensões fundamentais: interação cotidiana com ferramentas digitais, imaginários sobre a profissão docente, significados pedagógicos das tecnologias, percepção da inteligência artificial e projeções profissionais futuras. Os resultados revelam um campo de tensões entre fascínio tecnológico e consciência crítica, inovação e precarização, agência e padronização. A partir de marcos teóricos biopolíticos e psicopolíticos, o estudo problematiza os efeitos das racionalidades algorítmicas na educação e destaca a necessidade de alfabetização digital crítica e situada. Proporcionam-se recomendações para reimaginar a formação de profissionais da educação como espaço de resistência frente à crescente tecno-governamentalidade educacional.

Palavras-chave: Tecnologias digitais. Subjetividade das profissionais da educação. Formação de profissionais da educação. Alfabetização digital crítica.

Introduction

Digital transformation deeply impacts education, particularly in the training of education professionals, where logics of efficiency collide with critical subjectivation within the context of datafication. Digital technologies, understood as apparatuses (*dispositifs*) of power, are neither neutral nor merely instrumental. Their integration into educational environments produces a series of effects on the organization of knowledge, curricular design, assessment practices, and, crucially, the subjectivities of education professionals in training. As Foucault (2009) notes, apparatuses are complex assemblages that articulate discourses, knowledge, practices, and technologies in line with governmental rationalities. From this perspective, analyzing the presence of platforms, algorithms, and digital environments in teacher education demands a critical inquiry into how pedagogical knowledge intertwines with the logic of digital capitalism.

In this context, the entry of major technology corporations into educational systems has profoundly transformed the conditions under which training occurs. Parcerisa et al. (2023) have documented how Big Tech's discourses on public education operate as legitimization strategies that render their commercial interests invisible under a rhetoric of pedagogical innovation. Similarly, Herrera-Urizar et al. (2024) warn that educational platforms owned by large tech corporations may compromise the free development of childhood by subordinating pedagogical logic to commercial interest, raising urgent questions about educational sovereignty and the autonomy of education professionals.

Within this framework, this article aims to explore how students training as education professionals in Spain and Chile perceive and experience the integration of digital technologies in their formative process, with special emphasis on the subjectifying effects of such encounters. The analysis starts from the premise that technologies do not only mediate access to content or didactic interaction; they also configure affective, ethical, and political dispositions within a hyper-connected society. This perspective demands attention not only to the benefits these tools may offer—such as increased access, personalization, or learning dynamism—but also to the tensions associated with algorithmic control, digital surveillance, and the automation of assessment processes.

To address this, the article develops a theoretical framework that combines biopolitics (understood as the government of life and bodies) with contemporary psychopolitics, which penetrates the emotional, cognitive, and affective dimensions of the subject (Han, 2014). This perspective allows for an understanding of how digitalized education operates as a technology of governmentality over the subjectivities of education professionals, promoting an ideal of the educator as efficient, flexible, responsible, and adaptable to a technologized environment. From this critical stance, the article also draws on contributions from authors such as Selwyn (2020) and Selwyn et al. (2025), who have problematized the uncritical incorporation of technology in schools and advocated for a critical look at the possible futures of digitalized education, as well as the contributions of pedagogues like Marina Garcés (2017), who call for an ethics of presence and openness in the face of algorithmic rationality.

This study explores how students in education professional training programs in Spain and Chile perceive and experience digital technologies, focusing on the subjectifying effects on their developing professional identity. Through structured interviews with 32 participants from public universities, five dimensions are analyzed: everyday digital subjectivity, perceptions of the digital educational role, pedagogical meanings of technology, tensions with AI and datafication, and the transformation of educational work. Drawing from biopolitical and psychopolitical frameworks, algorithmic rationalities in education are problematized, and critical digital literacy is proposed as a form of resistance. The expected contributions include a deeper understanding of how digital

technologies shape the subjectivities of education professionals in training, with implications for the design of more critical and emancipatory university programs.

Conceptual framework

Digital Technologies, Subjectivity and Power

Analyzing the impact of digital technologies on the training of education professionals requires going beyond instrumental discourses that reduce technology to a functional tool. Critical research has underscored that technologies participate in the configuration of power, knowledge, and subjectivation relations, especially when integrated into educational institutions such as schools and universities (Foucault, 2018; Selwyn, 2020). As Foucault (2018) points out, "the school becomes a kind of apparatus of perpetual examination that accompanies the entire operation of teaching" (p. 217); with the aid of advanced technologies, students may become subject to constant surveillance. In this sense, it is essential to recover the notions of *apparatus (dispositif)*, *governmentality*, and *subjectivity* to interrogate the rationalities inscribed in the design and use of digital platforms, automated assessment systems, or algorithmically mediated learning environments.

Recent studies have introduced the concept of *algorithmic futuring* to define how digital infrastructures anticipate and model the subjectivities of education professionals through predictive and value-oriented logics (Williamson et al., 2020). In parallel, research situated in the Ibero-American context has documented how educational digital platforms generate tensions between their pedagogical potential and their ethical and equity implications (Jacovkis et al., 2024; Massó-Guijarro et al., 2024). These studies show that the educational community perceives the integration of digital platforms with ambivalence: they value their accessibility and versatility, but express concerns regarding privacy, pedagogical autonomy, and equity of access.

Biopolitics optimizes populations (Foucault, 2009); digital platforms produce self-regulated subjects through surveillance and datafication (Williamson, 2017; Agamben, 2011). In teacher education, these forms of governmentality manifest in curricula that promote "digital teaching competence," the centrality of normative repositories, and the increasing use of digital performance monitoring systems. This produces a type of subjectivity defined less by pedagogical reflection or professional judgment and more by the capacity to respond to digital standards and validate one's own efficacy according to externally imposed metrics.

Psychopolitics and the Internalization of Control

Psychopolitics seduces through self-optimization (Han, 2014), colonizing the interiority of education professionals in training through platform visibility and algorithmic feedback (Zuboff, 2020). Digital psychopolitics molds professional self-perception, defines what it means to be a "good educator," and limits the possibilities for dissent. Self-assessment tools, automated feedback systems, and educational rankings foster continuous comparison that generates anxiety, dependency, and self-regulation. This rationality not only transforms practices but also affects emotions, relationships, and desires among students in training, replacing self-reflection with the approval or rejection of anonymous evaluators.

Data subjects emerge from algorithmic measurement (Cheney-Lippold, 2017); education professionals in training perform digital competence in response to systemic demands, but also resist through re-appropriation. Macgilchrist (2019) emphasizes the importance of redefining the division of labor between humans and machines: educators must prioritize values and capacities that AI cannot replicate, such as ethics, critical thinking, and creativity.

From this perspective, experiences with mobile phones, platforms, or artificial intelligence can be read not only as forms of control but also as spaces where affection, belonging, and critical possibilities are articulated. The subjectivity of education professionals, as a contested category, can be understood as a site of negotiation between the mandate of efficiency and the desire for pedagogical transformation. Authors such as Marina Garcés (2017) and bell hooks (2021) have stressed the need to recover the ethical and political dimensions of teaching, reclaiming the classroom as a public space for dialogue, care, and emancipation against the algorithmic logic of quantification.

Finally, several authors have highlighted the importance of explicitly incorporating algorithmic literacy into teacher education programs as a critical pedagogical tool. According to Moylan and Code (2024), equipping future educators with algorithmic literacy skills means enabling them to understand, evaluate, and question how algorithms affect pedagogical processes and educational decision-making, thereby retaining professional agency in the face of increasing automation.

Methodology

Approach, Design and Epistemological perspective

This study is framed within a critical qualitative perspective that seeks to understand, through the voices of education professionals in training, how digital technologies impact their processes of subjectivation during university education. Rather than adopting a positivist or functionalist stance on the technological phenomenon, the study relies on an interpretive, situated, and dialogic conception of

educational research (Denzin & Lincoln, 2018). In this framework, knowledge is not viewed as a neutral representation of the world, but as a social construction intersected by relations of power, subjectivity, class, territory, and technology, within the specific context of teacher education across comparative settings.

The methodological design is exploratory-interpretive in nature, utilizing a comparative approach between the contexts of Spain and Chile. Structured interviews with open-ended questions were chosen, allowing for standardized data collection without sacrificing the expressive richness and singularity of each narrative. As argued by Minayo (2012) and Flick (2022), structured interviews with open-ended questions enable the exploration of shared meanings and cultural divergences while respecting the participants voices.

Participants and Selection criteria.

The sample consisted of 32 university students (20 from Spain and 12 from Chile) enrolled in teacher education and pedagogy degree programs: Early Childhood Education, Primary Education, Social Education, and Pedagogy in the Spanish case; and Philosophy Pedagogy and Early Childhood Education (*Educación Parvularia*) in the Chilean case. All participants had direct experience with digital technologies throughout their formative process and shared the defining trait of constructing—from within their respective degrees—a professional subjectivity oriented toward the educational field in contexts of increasing digitalization.

The inclusion criteria were as follows:

- Being enrolled in a university degree program within the field of education.
- Having completed at least one year of training.
- Having identifiable experiences with digital technologies applied to their education.

A purposive sampling strategy (Patton, 2015) was used, seeking diversity in educational trajectories, disciplinary programs, and geographic territories. This choice aimed to recover a critical and situated perspective, as proposed by Haraway (1995), incorporating the relational and contextual dimension of technological experience. The study is based on the premise that the subjectivity of education professionals is not a universal datum, but a situated, negotiated, and historically constructed process, shaped by institutional conditions, platform logics, and pedagogical imaginaries that differ according to context.

TABLE 1: Participants profile

(Continued)

Identifier	Type of Training	Age	Country
Participant 1	Bachelor's in Early Childhood Education	20	Spain
Participant 2	Bachelor's in Early Childhood Education	19	Spain
Participant 3	Bachelor's in Early Childhood Education	20	Spain
Participant 4	Bachelor's in Early Childhood Education	21	Spain
Participant 5	Bachelor's in Pedagogy	22	Spain
Participant 6	Bachelor's in Primary Education	22	Spain
Participant 7	Bachelor's in Pedagogy	25	Spain
Participant 8	Bachelor's in Early Childhood Education	37	Spain
Participant 9	Bachelor's in Pedagogy	24	Spain
Participant 10	Bachelor's in Social Education	21	Spain
Participant 11	Bachelor's in Primary Education	22	Spain
Participant 12	Bachelor's in Early Childhood Education	19	Spain
Participant 13	Bachelor's in Early Childhood Education	22	Spain
Participant 14	Bachelor's in Early Childhood Education	22	Spain
Participant 15	Bachelor's in Pedagogy	25	Spain
Participant 16	Bachelor's in Primary Education	22	Spain
Participant 17	Bachelor's in Social Education	23	Spain
Participant 18	Bachelor's in Social Education	21	Spain
Participant 19	Bachelor's in Pedagogy	24	Spain
Participant 20	Bachelor's in Social Education	22	Spain
Participant 21	Philosophy Pedagogy	20	Chile
Participant 22	Philosophy Pedagogy	23	Chile
Participant 23	Philosophy Pedagogy	30	Chile

(conclusion)			
Participant 24	Philosophy Pedagogy	26	Chile
Participant 25	Early Childhood Education (<i>Parvularia</i>)	24	Chile
Participant 26	Philosophy Pedagogy	29	Chile
Participant 27	Philosophy Pedagogy	28	Chile
Participant 28	Philosophy Pedagogy	23	Chile
Participant 29	Philosophy Pedagogy	22	Chile
Participant 30	Early Childhood Education (<i>Parvularia</i>)	31	Chile
Participant 31	Philosophy Pedagogy	28	Chile
Participant 32	Philosophy Pedagogy	23	Chile

Source: Compiled by the authors.

Instrument: Structured Interviews with Open-Ended Questions

The data collection instrument consisted of a structured interview administered via digital forms, composed of seven open-ended questions related to the following topics:

1. The participant's personal relationship with their mobile phone or device.
2. The influence of the device on daily life.
3. Perceptions of the educational contributions of digital technologies.
4. Assessment of how faculty/instructors use these technologies.
5. The transformative potential of digital technologies and Artificial Intelligence for the future of education.
6. Desired changes in the integration of technology into educational practices.
7. The potential impact of these technologies on the work and role of future education professionals.

The study examined the subjective, ethical, political, and affective dimensions of digital technologies in teacher education. Interviews were conducted anonymously and voluntarily, taking into account the differences in digital infrastructure between the two countries.

Analysis Strategy: Dimensions, Categories, and Thematic Coding.

The interview analysis was conducted through inductive thematic coding, following Braun and Clarke's (2006) proposals for reflexive thematic analysis. After a comprehensive reading of the

responses, units of meaning were identified and grouped into five analytical dimensions and fifteen emerging categories. Coding was performed manually by the research team in two phases: initially differentiating by country and, subsequently, through a comparative approach to identify convergences and divergences.

TABLE 2: Analytical Dimensions and Emerging Categories

Dimension	Associated categories
1. Everyday digital subjectivity	Emotional bond with the device – Intensive use – Dependency – Time management
2. Perception of digital educational role	Evaluation of faculty use – Visibility – Expectations of modernization
3. Pedagogical sense of technology	Contributions to learning – Accessibility – Contextual limitations
4. Tensions with AI ⁴ and datafication	Algorithms, control, and surveillance – Ambivalence toward automation
5. Transformation of educational work	New competencies – Redefinition of the professional role – Risk of dehumanization

Source: Compiled by authors

These dimensions allow for an analytical approach that goes beyond a mere description of perceptions of technology, exploring how such perceptions shape ways of being, acting, and feeling as future education professionals within a digitalized environment. A critical hermeneutic perspective was adopted, integrating elements of thick discourse interpretation with an axiological and political lens on the emerging meanings.

Results

The interview analysis identified five key dimensions that structure the relationship between digital technologies and the subjectivation of education professionals in training. Each dimension articulates emerging categories that express how participants experience, problematize, and resignify their relationship with digital devices, the educational profession, and contemporary educational scenarios.

⁴AI: Artificial Intelligence

Everyday Digital Subjectivity

This first dimension refers to how students configure their daily relationship with the mobile phone, understood not merely as a tool but as an affective and identity-related object that regulates time and emotion. This relationship has direct implications for training processes: previous research in Catalan and Chilean university contexts has documented how mobile phone use in classrooms generates tensions between the learning possibilities it offers and the dynamics of distraction and dependency it can provoke (Pozos-Pérez et al., 2023). Ambivalent discourses predominate, oscillating between acknowledged dependency and perceived utility.

In the Spanish context, several participants expressed an intense relationship with their devices: "My phone has become a personal object with emotional value. It helps me disconnect from reality, but sometimes it consumes more time than it should" (Participant 3). "I think I'm quite hooked on my phone. I get anxious when I don't have it near me, even though I know that's not healthy" (Participant 4).

From Chile, similar perceptions emerged, though frequently framed in terms of access and necessity: "I use it all day, especially for studying and communicating. Sometimes I realize I can't be without it, but it's also what allows me to learn and stay connected" (Participant 24).

This relationship configures a fragmented subjectivity, suspended between productivity, escapism, and self-control, echoing Han's (2014) notion of the "achievement subject" (*sujeto del rendimiento*). Furthermore, this attention economy—where the mobile operates as an emotional regulator—resonates with Zuboff's (2020) concept of surveillance capitalism, in which affective data and usage habits become measurable assets for the digital market.

Perceptions of the Digital Educational Role

The second dimension captures the students' assessments of how their instructors integrate digital technologies. In general, responses from Chilean participants tended to be more critical: "Many professors only use technology to take attendance or upload PDFs. There is no real pedagogical integration" (Participant 22). "Sometimes I feel that some professors are afraid of technology, and it shows in how they avoid it in class" (Participant 28).

In the Spanish case, the evaluations were more mixed: "It depends on the professor. Some do very creative things with apps or interactive presentations, but others stick to the usual methods" (Participant 9).

The figure of the digitalized educator emerges as a desirable model of professionalism, associated with constant updating and pedagogical creativity. As suggested by Moylan and Code (2024), bridging this gap requires not only technical training but also critical algorithmic literacy.

Pedagogical sense of Technology

This dimension explores how future education professionals represent the contributions and limitations of digital technologies in teaching and learning processes. In both countries, many students highlighted the didactic value of technology: "They can become very valuable tools for motivating children and adapting to different learning styles" (Participant 5).

However, structural limitations were also recognized: "Technology is useful, but if there is no internet or not all students have access, it becomes exclusionary" (Participant 8).

Key categories emerging here include accessibility and contextual limitations, questioning the idea of digital neutrality and exposing structural inequalities that affect technological equity. Participants expressed a critical awareness of the technocratic uses of digital tools and the fallacy of technological solutionism.

Tensions with Artificial Intelligence and Datafication

A particularly revealing dimension was the perception of AI and algorithmic systems in education. Responses were markedly ambivalent, expressing enthusiasm for task automation but also concern about surveillance, dehumanization, and the erosion of professional judgment.

"I think AI can help speed up grading, but I'm afraid it will end up replacing our voice as educators" (Participant 7). "Sometimes I wonder if in the future robots will teach classes and teachers will only supervise. I don't like that idea" (Participant 29).

These responses reflect an emerging awareness of algorithmic governmentality (Rouvroy & Berns, 2013), whereby educational knowledge begins to be modeled through opaque computational logics. The challenge, therefore, lies not in representing AI as a threat, but in reaffirming the educator's role as a guarantor of ethics, creativity, and pedagogical relationships that no AI can replicate.

Transformation of Educational Work

The final dimension analyzes how students project the changes that digital technologies and AI may bring to their future roles as education professionals.

"I am concerned that the teacher's work will become more technical, more like office work, and less about human connection" (Participant 14). "I would like technology to be a support, not a burden. I'm afraid they will require us to do everything with machines and the educational meaning will be lost" (Participant 30).

These statements reveal a reconfiguration of the professional role, where the educator of the future appears caught between pedagogical creativity and technological functionalization. This

dimension reflects a contested subjectivity of education professionals, where the ethical vocation for education coexists with structural uncertainty in a constantly evolving environment.

Discussion

The results reveal a complex configuration of the subjectivity of education professionals in training, shaped by digital technologies and marked by tensions between dependency and agency, fascination and suspicion. These tensions express processes of subjectivation within the frameworks of biopolitical and psychopolitical paradigms (Foucault, 2008; Han, 2014).

Everyday Digital Subjectivity: Between Desire and Self-Surveillance

The first dimension reveals how the mobile device has ceased to be a mere tool and has become an affective extension of the self. This transformation aligns with what Han (2014) terms psychopolitics, where control no longer operates on bodies through repression, but on the mind through seduction, constant exposure, and emotional self-management. The subjectivity of education professionals in training—characterized by constant connectivity, affective capture, and compulsive self-monitoring—poses a structural challenge to university programs in the field of education. The data reveal how future educators experience a fragmented sense of self, suspended between logics of productivity and the desire for presence. Training programs must, therefore, create spaces that recover temporality, embodied experience, and reflective practice as antidotes to the accelerationist rationality inscribed in digital platforms.

The Digital Educational Role: Imaginaries of Modernization and Deficit

The perception of the educational role mediated by technologies reveals a dual imaginary: on one hand, the figure of the innovative, connected, and creative education professional; on the other, that of the obsolete or overwhelmed teacher. This polarization is not merely technical: it constructs axiological meanings about what a "good educator" should be in the digital age. From a Foucaultian perspective, we may be facing a regime of truth in which techno-competence is valued as a sign of professionalism, displacing other forms of pedagogical knowledge (Foucault, 2009). The technification of the educational role responds to a logic of governmentality aimed at normalizing subjectivities that are adaptable, flexible, and permanently updated, regardless of the professional's trajectory, context, or pedagogical tradition.

However, as the participants narratives show, this promise is marked by inequalities, frustrations, and resistance. Rivera-Vargas et al. (2024) have documented in the Ibero-American

context how educational platformization generates critical nodes in teacher professionalism, eroding pedagogical autonomy and replacing professional judgment with the management of corporate interfaces. The lack of critical training in the pedagogical use of technology is not simply a technical gap, but a symptom of an integration model focused on devices rather than processes. As Macgilchrist (2019) warns, dominant discourses on educational innovation tend to obscure structural conditions, material inequalities, and alternative ways of teaching.

Pedagogical Sense: Between Motivation and Exclusion

The third dimension shows a widespread recognition of the pedagogical potential of digital technologies, particularly regarding student motivation and methodological diversification. However, this assessment is intersected by an acute awareness of material limitations, access gaps, and contextual tensions. Previous research in the Catalan context has shown that, despite the recognized potential, the educational community identifies substantive concerns about privacy, equity in access, and the reduction of pedagogical autonomy in the face of corporate platforms (Massó-Guijarro et al., 2024; Jacovkis et al., 2024). These findings are consistent with the discourses of the participants, who point out that mere possession of devices is insufficient without a pedagogical purpose and structural support for meaningful access.

When students denounce poor connectivity, insufficient training, or administrative overload, they highlight the limits of decontextualized technology. As Haraway (1995) asserts, situated knowledge is a necessary condition for emancipatory technological practices. Thus, judgment on technology is not made in the abstract, but from the embodied, territorialized, and affective experience of being an education professional in training. This challenges technocratic ICT integration policies, which tend to measure success in terms of coverage rather than epistemic justice (Fricker, 2017).

Ambivalence toward AI: Between Algorithmic Fascination and Dehumanization

One of the most disruptive dimensions of the study concerns the impact of Artificial Intelligence in education. The responses reflected a subjectivity marked by ambivalence: fascination with personalization, efficiency, and automation, but also fear of dehumanization, the loss of professional judgment, and algorithmic bias. These tensions align with what Rouvroy and Berns (2013) define as algorithmic governmentality: a form of power that operates through prediction, correlation, and statistical normalization, reconfiguring the very conditions of pedagogy.

From the perspective of critical studies on education and technology, Selwyn et al. (2025) note that the field has transitioned from a critique centered on infrastructure toward a concern for the subjectivities emerging at the intersection of algorithmic rationalities and educational practices. Their

reflections emphasize that the futures imagined by educational technology are not neutral: they are traversed by corporate interests, measurement logics, and an impoverished conception of what it means to learn and teach. This perspective resonates strongly in the participants' discourses, as they articulate a subjectivity that defends the right of education professionals to think, doubt, feel, and make mistakes—dimensions that cannot be programmed.

The Future of Educational Work: Technopolitical Professionalism or Digital Precarity

The professional projections of the students reveal a contested terrain of subjectivation: on one hand, a hopeful subjectivity that sees technology as an ally for creative and relational pedagogy; on the other, an anxious subjectivity that anticipates overload, algorithmic control, and progressive dehumanization of the educational role. This tension outlines the contours of a new figure: the precarious techno-professional, forced to constantly adapt to shifting platforms and opaque systems, often without pedagogical autonomy or ethical recognition.

Crucially, this anxiety expresses a structural condition of the contemporary subjectivity of education professionals in training, shaped by the platformization of education (Selwyn, 2020; Rivera-Vargas et al., 2024), the algorithmization of assessment, and the erosion of professional judgment. Faced with this horizon, critical digital literacy and algorithmic awareness are not optional competencies, but conditions of possibility for an emancipatory educational identity in the 21st century.

Conclusions

This article aimed to explore how digital technologies shape the subjectivities of education professionals during their university training in Spain and Chile. The findings confirm that this configuration is neither a neutral nor a merely technical process: platforms, algorithms, and artificial intelligence systems operate as apparatuses (*dispositifs*) of subjectivation that mold professional imaginaries, affective dispositions, and the critical capacities of future educators. Across the five dimensions analyzed, a transversal pattern emerges: participants simultaneously experience digital seduction and suspicion, dependency and resistance, the promise of innovation, and the fear of dehumanization. This tension is not individual or psychological, but structural: it reflects the contradictions of university training that incorporates corporate technologies without sufficiently problematizing the rationalities of power that permeate them.

The comparison between the Spanish and Chilean contexts further demonstrates that these tensions take situated forms: Chilean participants expressed greater criticality toward faculty use of technology, while Spanish participants exhibited greater affective ambivalence regarding the mobile device. These differences point to the relevance of territory, pedagogical tradition, and material

conditions as factors that modulate digital subjectivation processes, confirming the need for a situated and comparative approach to understanding the phenomenon of educational platformization in Latin American and Iberian contexts.

This study presents several limitations that must be considered when interpreting its findings. First, the sample—though diverse in terms of degrees and territories—consists of 32 purposively selected participants, which limits the possibility of statistical generalization. This is an exploratory-interpretative study whose value lies in analytical depth rather than sample representativeness. Second, the use of structured interviews administered via digital forms may have restricted the emergence of more complex narratives that might have surfaced in semi-structured interviews or focus groups. Third, the study focuses exclusively on students' perceptions, excluding the voices of university faculty and institutions, thereby offering a partial perspective of the phenomenon. Finally, the cross-sectional nature of the design prevents capturing the evolution of digital subjectivities throughout the formative process, which constitutes a significant limitation given the dynamic nature of subjectivation processes.

The results of this study open several lines for research and action. From a research standpoint, it would be valuable to develop longitudinal studies to track how the subjectivities of education professionals evolve throughout initial training and into the first years of professional practice. Likewise, it is pertinent to expand the comparative approach to other Ibero-American and European educational systems, incorporating the voices of teacher educators and institutional management teams. The development of more participatory methodological instruments—such as biographical interviews, focus groups, or visual methods—could enrich the understanding of digital subjectivation processes in formative contexts.

From the perspective of educational policy and curricular design, the findings directly challenge training institutions. The uncritical integration of corporate platforms into university programs is not a technical decision: it is a political decision with subjectifying effects. Reimagining these programs as spaces for critical construction requires incorporating algorithmic literacy as a transversal axis, promoting reflection on the rationalities of digital capitalism, and recovering the relational, ethical, and situated dimensions of pedagogy. Ultimately, the data points to the urgency of rethinking the training of education professionals not as technical preparation for a digitalized market, but as a process of constructing critical subjectivities capable of inhabiting, questioning, and transforming the educational environments of the 21st century.

References

AGAMBEN, G. **¿Qué es un dispositivo?** Buenos Aires: Adriana Hidalgo, 2011.

- BRAUN, V.; CLARKE, V. Using thematic analysis in psychology. **Qualitative Research in Psychology**, v. 3, n. 2, p. 77-101, 2006. DOI: 10.1191/1478088706qp063oa.
- CHENEY-LIPPOLD, J. **We are data**: algorithms and the making of our digital selves. New York: New York University Press, 2017.
- DENZIN, N. K.; LINCOLN, Y. S. (org.). **The SAGE handbook of qualitative research**. 5. ed. Thousand Oaks: SAGE, 2018.
- FLICK, U. **An introduction to qualitative research**. 6. ed. London: SAGE, 2022.
- FOUCAULT, M. **Vigilar y castigar**: nacimiento de la prisión. Buenos Aires: Siglo XXI, 2018.
- FOUCAULT, M. **Seguridad, territorio, población**: curso del Collège de France (1977-1978). Madrid: Akal, 2008.
- FOUCAULT, M. **Nacimiento de la biopolítica**: curso del Collège de France (1978-1979). Madrid: Akal, 2009.
- FRICKER, M. **La injusticia epistémica**: el poder y la ética del conocimiento. Barcelona: Herder, 2017.
- GARCÉS, M. **Nueva ilustración radical**. Barcelona: Anagrama, 2017.
- HAN, B-C. **Psicopolítica**: neoliberalismo y nuevas técnicas de poder. Barcelona: Herder, 2014.
- HARAWAY, D. **Ciencia, cyborgs y mujeres**: la reinvención de la naturaleza. Madrid: Cátedra, 1995.
- HERRERA-URÍZAR, G.; BLANCO-NAVARRO, M.; LOZANO-MULET, P.; NEUT-AGUAYO, P. ¿Interés comercial o pedagógico? Las plataformas educativas de las Big Tech y el libre desarrollo de la infancia. **REICE: Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación**, v. 22, n. 2, p. 67-84, 2024. DOI: 10.15366/reice2024.22.2.004.
- hooks, b. **Enseñar a transgredir**: la educación como práctica de la libertad. Madrid: Capitán Swing, 2021.
- JACOVKIS, J.; PARCERISA, L.; HERRERA-URÍZAR, G.; FOLGUERA, S. ¿A quién educan las plataformas digitales? Equidad y ética educativa en un contexto de postpandemia. **Education in the Knowledge Society (EKS)**, v. 25, e30444, 2024. DOI: 10.14201/eks.30444.
- MACGILCHRIST, F. Cruel optimism in edtech: when the digital data practices of educational technology providers inadvertently hinder educational equity. **Learning, Media and Technology**, v. 44, n. 1, p. 77-86, 2019. DOI: 10.1080/17439884.2018.1556217.
- MASSÓ-GUIJARRO, B.; HERRERA-URÍZAR, G.; FOLGUERA-ÁLVAREZ, S.; ALONSO-CANO, C. Potencialidades y desafíos del uso de plataformas digitales educativas desde las voces de la comunidad educativa catalana. **EDUTEC: Revista Electrónica de Tecnología Educativa**, n. 87, p. 43-55, 2024. DOI: 10.21556/edutec.2024.87.3023.
- MINAYO, M. C. de S. **O desafio do conhecimento**: pesquisa qualitativa em saúde. 12. ed. São Paulo: Hucitec, 2012.

MOYLAN, R.; CODE, J. Algorithmic futures: an analysis of teacher professional digital competence frameworks through an algorithm literacy lens. **Teachers and Teaching**, v. 30, n. 3, p. 319-337, 2024. DOI: 10.1080/13540602.2023.2263732.

PARCERISA, L.; JACOVKIS, J.; RIVERA-VARGAS, P.; HERRERA-URÍZAR, G. Corporaciones tecnológicas, plataformas digitales y privacidad: comparando los discursos sobre la entrada de las BigTech en la educación pública. **Revista Española de Educación Comparada**, n. 42, p. 221-239, 2023. DOI: 10.5944/reec.42.2023.34417.

PATTON, M. Q. **Qualitative research e evaluation methods**. 4. ed. Thousand Oaks: SAGE, 2015.

POZOS-PÉREZ, K.; HERRERA-URÍZAR, G.; RIVERA-VARGAS, P.; ALONSO-CANO, C. Use of mobile phones in classrooms and digitalisation of educational centres in Barcelona. **Education Sciences**, v. 13, n. 1, p. 21, 2023. DOI: 10.3390/educsci13010021.

RIVERA-VARGAS, P.; JACOVKIS, J.; HERRERA-URÍZAR, G.; CALDERÓN-GARRIDO, D. Plataformización educativa y profesionalidad docente: tensiones y nudos críticos. **EDUTEC: Revista Electrónica de Tecnología Educativa**, n. 87, 2024. DOI: 10.21556/edutec.2024.87.3107.

ROUVROY, A.; BERNIS, T. Gouvernamentalité algorithmique et perspectives d'émancipation. **Réseaux**, v. 177, n. 1, p. 163-196, 2013. DOI: 10.3917/res.177.0163.

SELWYN, N. **Should robots replace teachers?** AI and the future of education. Cambridge: Polity Press, 2020.

SELWYN, N.; RIVERA-VARGAS, P.; HERRERA-URÍZAR, G. Critical studies on education and technology: paths taken and futures imagined. A dialogue with Neil Selwyn. **Revista Izquierdas**, n. 54, p. 1-13, 2025. Disponível em: <http://www.izquierdas.cl/images/pdf/2025/54/MonoI2Esp.pdf>. Acesso em: 4 abr. 2025.

WILLIAMSON, B. **Big data in education**: the digital future of learning, policy and practice. London: SAGE, 2017.

WILLIAMSON, B.; BAYNE, S.; SHAY, S. The datafication of teaching in Higher Education: critical issues and perspectives. **Teaching in Higher Education**, v. 25, n. 4, p. 351-365, 2020. DOI: 10.1080/13562517.2020.1748811.

ZUBOFF, S. **La era del capitalismo de la vigilancia**: la lucha por un futuro humano frente a las nuevas fronteras del poder. Barcelona: Paidós, 2020.

Recebido: 16/04/2026

Aceito: 07/05/2026

Received: 04/16/2026

Accepted: 05/07/2025

Recibido: 16/04/2026

Aceptado: 07/05/2026

