Docências universitárias, ciberformação e constituição do ser docente: caminhos e percursos investigativos[1]

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Resumo
O artigo apresenta resultados de duas teses e objetivam entender os processos de formação no ensino superior, seja em um enfoque da profissionalização docente mediadas pelas Tecnologias Digitais de Informação e Comunicação (TDIC) ou a busca ontológica da constituição do ser docente por meio dos processos de ciberformação. Qualitativas e multirreferenciais as pesquisas, têm metodologias distintas, uma articulada à fenomenologia e a outra articulada à metodologia da conversa e à arqueogenealogia. O Estudo/pesquisa buscou elementos de consolidação da cultura digital, o fortalecimento de uma nova cultura formativa e profissionalizante mediada pelas tecnologias e o entendimento de que enunciados e discursos docentes constituem do ser docente nas docências universitárias. Os resultados sinalizam que há deficiência no letramento digital, programas formativos deficitários nas IES pesquisadas e que processos de ciberformação podem fazer emergir princípios que promovam a emancipação e a conscientização tecnológica crítica do ser docente e dos sujeitos na contemporaneidade.

Palavras-chave: Cultura Digital. Docências Contemporâneas. Formação Docente. Profissionalização Docente.

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University teaching, cyberformation and the constitution of being a teacher: research paths and routes

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Abstract

The article presents the results of two theses and aims to understand the processes of cyberformation in higher education, whether from a perspective of teacher professionalization mediated by Digital Information and Communication Technologies (DICT) or the ontological search for the constitution of the being a teacher through the processes of cyberformation. The research is qualitative and multi-referential and has different methodologies, one linked to phenomenology and the other articulated with the methodology of conversation and archaeogenealogy. The study/research looked for elements of consolidation of the digital culture, the strengthening of a new formation and professionalizing culture mediated by technologies and the understanding of what teaching enunciation and discourses constitute of being a teacher in university teaching. The results indicate that there is a deficiency in digital literacy, deficient formation programs at the Higher Education Institutes surveyed and that cyberformation processes can bring out principles that promote emancipation and critical technological awareness of being a teachers and subjects in contemporary times.

Keywords: Digital Culture. Contemporary Teaching. Teacher Training. Teacher Professionalization.

Docencia universitaria, ciberformación y constitución del ser docente: vías e itinerarios de investigación

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Resumen

El artículo presenta los resultados de dos tesis que tienen como objetivo comprender los procesos de formación en la educación superior, ya sea desde la perspectiva de la profesionalización docente mediada por las Tecnologías Digitales de la Información y la Comunicación (TIC) o búsqueda ontológica de la constitución del ser docente a través de procesos de ciberformación. Cualitativas y multirreferenciales, cuentan con diferentes metodologías, una vinculada a la fenomenología y otra a la metodología de conversación y arqueogenalogía. El estudio/investigación buscó elementos de la consolidación de la cultura digital, fortalecimiento de una nueva cultura formativa y profesionalizante mediada por tecnologías y la comprensión de que los enunciados y discursos constituyen el ser docente en la enseñanza universitaria. Los resultados indican una deficiencia en la alfabetización digital, programas de formación deficientes en las IES encuestadas y que procesos de ciberformación pueden conducir al surgimiento de principios que promuevan la emancipación y la conciencia tecnológica crítica de los docentes y sujetos en la época contemporánea.

Palabras clave: Cultura Digital. Enseñanza Contemporánea. Formación del profesorado. Profesionalización docente.

Introduction

Since the COVID-19 pandemic, we have been experiencing the peak of an unprecedented ecological, ethical, aesthetic, political, and economic crisis in our societies. This crisis has made it evident that we must pay closer attention to our inconsistencies and vulnerabilities to move forward in our journey on planet Earth. Faced with the vital need to survive and carry out basic activities, this crisis has prompted us all to adopt new stances and integrate new social determinants, such as wearing masks, social isolation, remote work, increased reliance on mobile resources, the regulation of natural resource use, hybrid education, among others. These changes have reshaped modes of survival, interaction, communication, as well as the creation, appropriation, and dissemination of knowledge, significantly impacting the propositions of knowledge and learning within the field of the Humanities in general and Education in particular. The pandemic has passed, but it left indelible marks on our lives and societies. Even in the face of this historical moment shaped by digital culture[4] and its political, economic, and social biases, reflecting on education and the unfolding possibilities for action and coexistence within formative environments that extend into the social sphere is, undoubtedly, one of the most significant tasks for research in the Humanities and, consequently, for everyone involved in education. If, like our lives, culture grows and flourishes and today it is deeply intertwined with technological means we might consider that culture and the digital realm have become integral parts of our existence, marking the current era of digital culture. Yet, is this culture understood by all? What are the implications of digital culture for the formation and emancipation of individuals?

In light of these questions, we emphasize the importance of the doctoral research presented in this article. Essential to the field of education research, these studies have been conducted in dialogue with investigations carried out by the Research Group on Networked Learning (GRUPAR). They reflect the research and experiences of the authors of this article as well as other group members, highlighting their collective contributions to this critical field of study.

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[4] - Several authors research and present the concept of cyberculture or digital culture. For this analysis, we prioritize the theoretical perspectives of Pierre Lévy (1999), Lucia Santaella (2003), and André Lemos (2008), who view cyberculture as a convergence between contemporary sociocultural aspects and new information and communication technologies. Thus, we understand digital culture as contemporary culture interwoven with information and communication technologies, "[...] a universal culture without totalizations, [which] requires the engagement of individuals to actualize a process of knowledge creation and production, the result of comprehensive education" (VIEIRA NETO; BRUNO, 2023). Although Bortolazzo (2016) refers to other concepts associated with digital culture, such as cyberculture (LÉVY, 1999) and the information or digital age (CASTELLS, 2009), this study adopts the term "digital culture." This choice reflects the seamless integration of the digital into people's cultural lives in our current moment, making it the designation that best represents our context.

Starting from the premise that we are currently enmeshed and interconnected in a culture permeated by the digital "the contemporary culture composed of a universal without totalizations and mediated by networked technologies" (VIEIRA NETO, 2013) and that culture encompasses all human actions and movements within a society, it can be inferred that individuals are creating knowledge and shaping themselves as subjects immersed in this digital culture. This culture is characterized by

> [...] the aspiration to construct a social bond, which would not be founded on territorial links, institutional relations, or power dynamics, but rather on gathering around common interests, play, and open processes of collaboration. The appetite for virtual communities reflects an ideal of human relations that are deterritorialized, transversal, and free. Virtual communities are the engines, the actors, the diverse and surprising life of the universal through contac (LÉVY, 1999, p. 130).

The immersion we refer to pertains to the historical period of the last 30 years. By the late 1990s, Lévy (1999) already indicated that

> One thing is certain: we are living in one of those transitional periods where the entire old order of representations and knowledge is shifting to make way for imaginaries, modes of knowledge, and styles of social regulation that are still barely stabilized [...] a new style of humanity is being invented (LÉVY, 1999, p. 17).

This new style of humanity relates to the incorporation of technologies into the most diverse sectors of societal life, a shift marked by the transition from the 1980s to the 1990s. A readily observable aspect of this technological integration lies in the pursuit of digitized information, which has become increasingly prevalent, surpassing traditional print media due to the speed of processing. Previously, accessing knowledge often required waiting for the publication of a book or journal, or the delivery of printed materials via postal services. In less than 20 years, however, we have witnessed the construction of vast digitized repositories, made available within seconds. Nevertheless, as became evident during the pandemic, social inequality has highlighted persistent challenges in how people access and appropriate this mode of information retrieval. In particular, issues regarding the ability to discern between true and false information (commonly referred to as "fake news") have emerged, given the vast universe of possibilities within virtual spaces. In the context of formative processes in education, we underscore several implications arising from the social conditions imposed during the pandemic, many of which continue to affect the post-pandemic era:

> On one hand, due to the conditions of social isolation, students found themselves needing to adopt digital and networked technological resources, utilizing Virtual Learning Environments (VLEs), platforms, and applications that, for many, were

> University teaching, cyberformation and the constitution of being a teacher: research paths and routes either unfamiliar or difficult to access (taking into account technological resources, equipment, and/or networks and connections). On the other hand, universities, administrators, and educators faced the lack of adequate and necessary professional training for the critical and creative use of digital technological resources. This included the absence of sufficient equipment in educational institutions and, in some cases, the inability to access networks and connections (wi-fi, internet) (VIEIRA NETO; BRUNO, 2023, p. 4).

Another noteworthy aspect is that there has never been such an abundance of courses[5] e and training on digital literacy[6] as in recent years, particularly during the pandemic. Parallel to this, there has been a growing demand for these trainings, regardless of people's age group. As the availability of such opportunities increases, so does the pursuit of acquiring these essential skills for integration into the environments fostered by digital culture across the various spaces individuals inhabit.

The increase in course offerings, coupled with the growing social and digital inequalities in society, revealed, both during and after the pandemic, a significant educational challenge in university teaching. This challenge stems from "the lack of implementation of principles, methodologies, and teaching procedures specific to open and hybrid online teaching" (BRUNO, 2021), which are essential for teaching and learning in the context of digital culture (VIEIRA NETO; BRUNO, 2023, p. 4).

Within this demand generated by digital culture, a new type of autonomous user has emerged in cyberspace. According to Santaella (2003), these users independently seek out information to meet their needs. The inhabitants of this vast virtual space exhibit reading skills distinct from those accustomed to linear reading. The author identifies this new type of reader, arising from the digital world, as an immersive reader. Through hyperlinks, this reader engages in "a nomadic activity of wandering from one place to another, piecing together fragments that are connected through an associative logic and personalized, non-transferable cognitive maps" (SANTAELLA, 2003, p. 175).

Santaella delineates not only the cognitive profile of this new reader but also of hypermedia users, who exhibit reading skills vastly different from those applied by readers of traditional printed texts, such as books, magazines, or newspapers. She categorizes the latter as "contemplative/meditative" readers. Beyond these two types the immersive and contemplative she also identifies the "mobile/fragmented" reader. This reader emerges from the world in motion, dynamic, born of the Industrial Revolution and the rise of large urban centers: the "man in the crowd." These readers engage in ephemeral, hybrid, and fragmented readings, such as the short WhatsApp

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[5] - When we refer to courses, we are not only discussing in-person offerings but, more importantly, online offerings from both formal and informal institutions.

[6] - There are various meanings attributed to the term digital literacy. We identify digitally literate individuals as those who are able to "navigate" technologies in their daily lives, such as smartphones, banking services, and similar tools.

snippets that rely more on symbols, like emojis, than words, thereby strengthening visual communication.

This mobile reader, according to Santaella, has reinforced visual communication. Images have grown and assumed a proportion in urban spaces never seen before. She believes that the diversity of electronic media has significantly contributed to the emergence of this type of reader. Importantly, one type of reader does not exclude the other, despite the historical sequence of their emergence. Nevertheless, alongside the rise of the immersive reader, there is a veiled reality of pseudodemocratization in access to digital technologies.

Although we are witnessing a movement toward establishing a new culture, Brazil's context regarding access to digital inclusion still requires considerable progress to ensure equality across social classes. This assertion was recently validated by research conducted in Brazilian households.

A study by the Brazilian Internet Steering Committee (CGI.br - NIC.br, 2023) revealed a growing gap in internet access among social classes, despite an overall increase in connectivity. According to the research, "84% of households in the country equivalent to 64 million in absolute numbers are connected to the internet, an increase of four percentage points compared to 2022 (80%)" (COMITÊ Gestor da Internet no Brasil - CGI.br - NIC.br, 2023). This growth, however, has been driven primarily by increased connectivity among lower-income households in classes C, D, and E.

The "TIC Domicílios" study, conducted since 2005, aims to "map access to information and communication technologies in permanent households across the country and their use by individuals aged 10 or older." The 2023 edition, conducted between March and July, included data from 23,975 households and 21,271 individuals (CGI.br - NIC.br, 2023).

Another significant finding concerns the number of individuals not using the internet, which dropped from 36 million in 2022 to 29 million in 2023. Among non-users, 24 million reside in urban areas, 17 million identify as Black or mixed race, and 17 million belong to lower-income classes (D and E), highlighting the digital exclusion in urban peripheries. Additionally, 24 million non-users have only an elementary education, and 16 million are aged 60 or older, surpassing the total number of non-users across all other age groups.

However, this does not imply that the Brazilian reality allows us to claim that all Brazilians are fully included in the digital world or culture. This highlights the persistent issue of social inequality in the country. There are significant discrepancies not only nationwide but also within the same city or between cities. Research revealed that in São Caetano (SP), the rate of home internet access reaches 74%, comparable to Japan. Conversely, in Aroeiras (PI), the rate is effectively zero. In a city like Rio

de Janeiro, while the affluent beachside neighborhood of Barra da Tijuca boasts an access rate of 94%, comparable to Sweden and Iceland, the nearby favela of Rio das Pedras has a rate of only 21%.

It is worth noting that this new study provided even more specific insights regarding residential areas and modes of internet access, mapping all 5,556 municipalities in Brazil. Another critical aspect concerns internet navigation: while navigating the web is essential, so too is education. The study found that 31% of internet users struggle with effective navigation.

Adding to these challenges is the fact that the new cultural model, mediated by technology, is driving significant changes in human production. It is reshaping conditions of existence, interpersonal relationships, communication methods, information dissemination, and even the ways of thinking and living, forming a new social foundation both in Brazil and globally.

These transformations lead us to understand that we are living at the peak of an era of profound socio-historical-cultural and politico-economic changes. These changes are marked, as Han (2017) pointed out, by the immunological paradigm. Amid technological transformations that began at least half a century ago, the immunological discourse "[...] infiltrated every social domain, inscribing a blindness: through defense, it repels all that is foreign" (HAN, 2017, p. 8). As a result of this process, it becomes evident that we have grown accustomed to perceiving ourselves and others as devoid of the capacities to create and act dimensions of freedom in Greek public life. This relegates us to the mere condition of animal laboring: a human being who "requires no presence of others but works in complete solitude" (ARENDT, 2019, p. 27).

Thus, on one hand, we witness an intense tension between individual and collective will, exacerbated by the pressures of the labor world. In this context, the processes of life, rooted in natural order, diverge from the onto-epistemological and ethical conditions of individuals, becoming understood merely in terms of their labor condition. On the other hand, individuals are becoming slaves to themselves, losing their essence as "human beings." This is because "the positivity of power is far more effective than the negativity of obligation" (HAN, 2017, p. 25), and the excess of performance drives individuals toward illness. Additionally,

> Surveillance capitalism has been unilaterally claiming "[...] human experience as free raw material for translation into behavioral data" (ZUBOFF, 2020, p. 18), thereby rendering individuals captive to algorithmic logic and dynamics. This phenomenon exacerbates mechanisms of social control, deeply entangled with the compromises of democratic states in perpetuating human misery. Such conditions deprive us of "[...] any secure means to preserve, and especially to achieve, becomings, including within ourselves" (DELEUZE, 1992, p. 213), thereby hindering our ability to become conscious, self-aware subjects (VIEIRA NETO; BRUNO, 2023, p. 5).

Thus, the existence of individuals with demands for digital inclusion stems from the premise that, as in Brazil, there are still cases of both educational and/or functional illiteracy. Digital illiteracy, in turn, has been growing significantly. This category may include literate individuals who, due to a lack of training or even interest, find themselves digitally excluded. The challenge lies in determining how to reduce this gap and foster not only inclusion but also access to high-quality, sustainable, and transformative formative processes. When this issue collides with a lack of political will, the outlook becomes bleak, as ensuring equal access to digital technologies must be a priority for any country aiming to compete in the global economy.

Regarding schools' engagement with digital culture, American scholar Buckingham (2008) describes the phenomenon as a "digital divide," highlighting the disconnect between the world within schools and life outside them. He argues that children's experiences with digital technologies shape their popular culture, which schools fail to absorb. According to him, these two realms are not aligned in their use of technology. Knowledge originating from non-school environments challenges the institution that, for centuries, has held the monopoly on knowledge.

Buckingham observes that many children are participating in an increasingly diverse and commercialized media culture a culture that some find difficult to understand or control. He identifies a "kind of paranoia about losing control over what happens when popular culture enters the school space" (BUCKINGHAM, 2008, p. 4), asserting that the "new digital divide simply reflects a broader historical disjunction between young people's everyday leisure culture and school culture" (*Ibidem*). These observations resonate with the Brazilian context.

In light of these considerations, we contextualize the objectives of the studies and research presented in this article. Research 1 aims to map institutional programs for teacher training across all Brazilian Federal Universities and assess the extent to which they incorporate ICTs as pedagogical resources. This mapping has been conducted in 70% of these institutions. Research 2 seeks to create an ontology of the present, enabling an understanding of the discursive practices that constitute the teaching profession and the cybertraining processes emerging from contemporary university teaching. This research aims to promote the emancipation and critical awareness of individuals. Given the investigative prerogatives, which are significant for rethinking and designing new theoretical and methodological approaches to teaching and learning, we recognize the importance of disseminating

the scientific findings from Research 1 and Research 2. This dissemination, facilitated through this esteemed journal, will be discussed further in the next section.

Materials and methods

Qualitative and multireferential studies/research, which allow for plural and contradictory perspectives (ARDOINO, 2005), aimed to explore, in Research 1, the elements that consolidate digital culture and strengthen a new formative and professional culture mediated by technologies within Higher Education Institutions (HEIs). In Research 2, the focus was on understanding an ontology of the present for the teaching profession, analyzed through the statements and discourses of educators resulting from cybertraining processes in university teaching.

In Research 1, the methodological path was inspired by phenomenology, seeking to uncover the meanings revealed by universities regarding their faculty training processes. The phenomenon was situated within the formative actions of these institutions.

Aligned with the chosen methodological inspiration, the research does not present definitive conclusions but instead constructs findings. As Garnica (1997) highlights, understanding is never final, as it resists confinement and remains open to continuous reinterpretation.
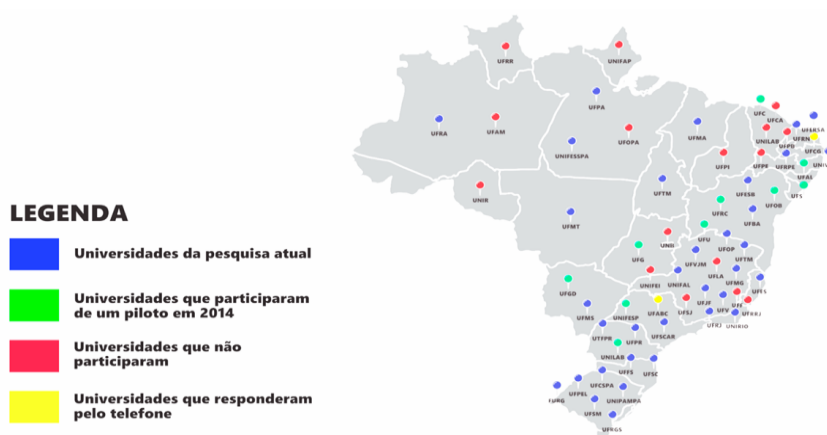
A bibliographic review revealed a significant gap: the role and training of university faculty remain underexplored topics. Only 36% of the materials identified address faculty training in higher education. Moreover, there is a notable lack of studies focusing on "institutional actions for faculty training" or examining faculty practices and their immersion in digital culture. Table 1 presents the scope of this research:

Table 1- Number of HEIs Researched by Region.

REGIÃO	N. de IES por região	N. IES – piloto 2014	N. IES – questionário 2016	N. IES – Entrevista Parte 1 – 2017/ 2018	N. IES – Entrevista Parte 2 – 2018
Centro-oeste	6	2	3		
Norte	9		3		
Sul	10	1	10	1	
Nordeste	18	4	7		2
Sudeste	20	3	12	5	1
TOTAIS	63	10	35	6	3

Source: Author1 (Research 1)

Figure 1 - Participating HEIs in Research 1 by Region of the Country.

LEGENDA

- **Universidades da pesquisa atual**
- **Universidades que participaram de um piloto em 2014**
- **Universidades que não participaram**
- **Universidades que responderam pelo telefone**

Source: Author1 (Research 1)

It is worth highlighting that the research found, from the pilot project conducted in 2014 to its conclusion in 2018, that: there was an increase in faculty participation, the continuation of courses on management, and the emergence of new training demands. In Research 2, from a methodological standpoint, the study employed a combination of conversational methodology with Foucauldian archaeogenealogy. The aim was to analyze the enunciative units of faculty discourse produced in the field by the research participants, referred to here as Qualified Informants (QI). The study sought the origin (*Herkunft*), the provenance of the historical events shaping the teaching profession, creating an ontology of the present a critical pursuit of understanding ourselves, and in this case, of understanding ourselves as teachers. Through faculty discursive practices, pathways were uncovered to understand the processes of cybertraining in university teaching, promoting the emancipation and critical awareness of individuals. As pointed out by Vieira Neto and Bruno (2023), the research has,

> The multireferential approach, which "consists of implementing plural and contradictory perspectives to better understand an object, a research subject, a difficulty, or a problem" (Ardoino, 2005, p. 22), integrates seamlessly with the conversational methodology. This methodology posits that "[...] conversations express attempts at rapprochement and mobilization of the lived relationships of these individuals [...], insofar as [it relies] on the political attitude of thinking *with* them rather than *for* and *about* them" (Ribeiro; Souza; Sampaio, 2018, p. 52).
> Additionally, it aligns with the Foucauldian archaeogenealogical methodology, which enables the emergence of "[...] a complex bundle of relations that function as a rule: [which] prescribes what must be correlated in a discursive practice so that it refers to this or that object, employs this or that enunciation, uses this or that concept, and organizes this or that strategy" (Foucault, 2008, p. 86) (VIEIRA NETO; BRUNO, 2023, p. 08).

The analysis of the data produced in the field, by listening to the statements made by the Qualified Informants (QIs), revealed the enunciations of faculty discourse within the discursive formations of teaching. These were delivered in the field by 29 Qis professors from higher education institutions offering teacher education programs in contemporary universities across four continents (America, Africa, Europe, and Asia). Dialogues were conducted in Portuguese, English, Spanish, and French, ensuring the necessary rigor and reliability in handling and cross-referencing the field data with the theoretical framework of the research, as illustrated in Figure 2.

Figure 2 - Field research map.

Source: Vieira Neto (2023, p. 08) (Research 2)

The recruitment process was conducted in three stages of nomination: (a) first Qualified Indication (QI), nominated by Brazilian university professors; (b) second QI, nominated by professors from the first QI; and (c) third QI, nominated by professors from the second QI. This process resulted in a total of 29 online conversations with participants from Brazil (6), Colombia (4), Chile (1), Uruguay (1), Ecuador (1), Mexico (1), the United States (4), Portugal (3), Spain (2), Africa (5), and Asia (1). The QIs met the following recruitment criteria: (a) involvement in teacher education programs; (b) demonstration of innovative and distinctive pedagogical practices (as perceived by their peers in the field); and (c) alignment with contemporary and contextually relevant pedagogies associated with cyberculture. Recruitment was carried out through two types of contact: (a) phone or WhatsApp, and (b) email. Participants received detailed information about the research via an Official Invitation and the Free and Informed Consent Form (FICF). The online conversations were conducted

12

using Google Meet, fully recorded, and guided by the Field Research Instrument, which included 16 prompts to initiate dialogue.

The field provided clues and various meanings for the events and formative processes experienced by the QIs.

Analysis and Results

In Research 1, it was found that all Higher Education Institutions (HEIs) comply with Law 12772/2012, which mandates public higher education institutions to implement actions for welcoming faculty members during their probationary period and to promote formative actions. However, this finding reveals both a contradiction and a pressing question: what can be said when the data show that there are still institutions in Brazil that disregard this legal prerogative? Although fewer than 10% of institutions fall into this category, their existence indicates non-compliance with the law. Despite the law being enacted in 2012, and the inquiry conducted in 2016, no changes had occurred in this regard. It is essential to consider the broader context many of these institutions were navigating, which involved political challenges. The research identified that higher education is undergoing a transition from a culture of the "all-knowing," doctrinaire professor, whose pedagogical practices are centered on the linear reproduction of content, to a faculty member who lives and produces within digital culture. This transition has once again highlighted the urgent need for university faculty training, a demand that became even more pronounced during and after the pandemic.

Deve-se ter claro que instituir ações de formação docente num espaço como as Universidades Públicas já poderia ser compreendida como espécie de rompimento com a ideia de que a formação do pesquisador stricto sensu já seria suficiente para tais atos pedagógicos. Entretanto, sabemos que formar/tornar-se professor/a implica assumir uma educação emancipadora.

One notable finding observed across two phases of the research concerns the follow-up actions undertaken by universities after faculty training programs. In the initial mapping conducted in 2016, it was found that 71% of institutions did not carry out any follow-up actions for faculty members who had participated in continuing education programs during their probationary period. However, in the second phase of the research, through interviews, when asked about follow-up actions, it was noted that half of the HEIs had started implementing evaluation processes immediately after the conclusion of the courses. Developing programs of this magnitude, which involve a significant number of

individuals, is neither a simple nor a routine task. Adding to this complexity is the fact that professors often teach multiple subjects simultaneously.

Another important finding was that more than 70% of HEIs conduct training actions involving ICTs, delivered both in-person and remotely. This indicates significant progress toward the appropriation of knowledge and confirms the perspective of several authors cited in this study, who argue that contemporary teaching should integrate and incorporate ICTs. Training in and through digital tools is increasingly seen as an essential attribute for promoting pedagogical practices that are engaging for students who are deeply embedded in digital culture.

When addressing the topic of university faculty training, there is no consensus among the authors reviewed regarding what is necessary for such training. While some focus on the concept of *skills*, listing specific abilities such as the appropriation of ICTs as essential for faculty members, others emphasize *knowledge* as the foundation for effective teaching. Moreover, there remains a gap in faculty training within higher education for the incorporation or digital literacy - of ICTs into their teaching practices.

To further highlight this tension within the field of university faculty training, Vasconcellos and Sordi (2016, p. 412) underscore the key challenges faced by training programs. These challenges will be explored further in subsequent sections:

> [...] The ongoing struggle to resist regulatory policies that run counter to an education aimed at social quality, the implementation of institutional policies that ensure the consolidation and continuity of such programs regardless of the individuals currently advocating for and structuring them, and the emphasis on a university pedagogical training grounded in ethical and political principles of human emancipation are all critical priorities. A key strategy to address these challenges, which we wish to highlight, is the construction of networks linking existing programs. These networks would aim not only to facilitate the exchange of experiences but also to promote collaborative learning and shared training. Such an approach prioritizes the strengthening of groups and the establishment of institutional policies.

The highlighted point underscores the importance of networks, which some institutions have already identified as a viable alternative to address part of their demands. Whether through peer-led actions or as a response to budget cuts that have made hosting events with external guests unfeasible, these networks have proven to be valuable. Another issue revealed by the thesis pertains to the public selection processes for university faculty positions. If the primary purpose of such selection processes is to recruit educators for university teaching, shouldn't the calls for applications more effectively address teaching practice? Is a teaching demonstration or didactic exam alone sufficient to evaluate pedagogical competencies? Who is responsible for addressing this gap?

14

The study found that many programs are currently implementing adjustments, whether by assigning greater weight to the teaching demonstration in the evaluation criteria or by valuing candidates' memorials to better understand their academic and professional trajectory. These modifications, in the medium and long term, may result in the selection of candidates whose academic teaching trajectories are genuinely recognized and appreciated.
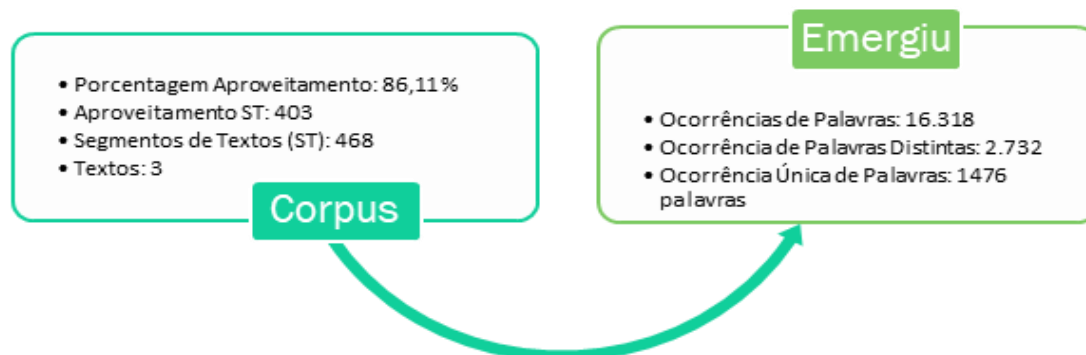
Finally, another critical point concerns the number of institutional programs for teacher training. According to Veiga et al. (2012, p. 13): "[...] we must admit that very few HEIs have an institutionalized Teacher Training Program to promote professional development." However, the data presented by the author have shifted, as evidenced by my research, which reports a significant advance over six years. I found that 70% of Brazilian Federal Public Universities out of 37 HEIs surveyed, 31 (86%) are already implementing continuing education initiatives for their faculty members.

Nevertheless, it is worth noting that the practice of researching their own initiatives has been developing slowly. Between the two phases of this investigation, only three universities invested in producing studies about their programs.

In Research 2, an analytical focus was applied through online conversations conducted with seven (7) Qualified Informants (QIs) in Portuguese, Spanish, and English. Based on the field data, a textual corpus on *being a teacher* was created, translated into Portuguese, and subjected to systematic analysis of the online conversations using IRAMUTEQ (*Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires*), an open-source software for qualitative data analysis. From this sample, one (1) enunciative unit of faculty discourse with the highest co-occurrence was selected for analysis.

The initial statistical analysis of the textual corpus on *being a teacher*, performed with IRAMUTEQ, produced the following variables, as presented in Figure 3:

Figure 3 - Command line and variables in the textual corpus of analysis.

Corpus
- Porcentagem Aproveitamento: 86,11%
- Aproveitamento ST: 403
- Segmentos de Textos (ST): 468
- Textos: 3

Emergiu
- Ocorrências de Palavras: 16.318
- Ocorrência de Palavras Distintas: 2.732
- Ocorrência Única de Palavras: 1476 palavras

Source: Vieira Neto (2023, p. 10) (Research 2)

In a second stage of analysis, the Descending Hierarchical Classification (DHC) method categorized three (3) Categorical Units of Analysis (CUAs): CUA 1 - Intersubjectivity; CUA 2 - Virtuality; CUA 3 - Cyberformactivity. In CUA 1, the focus of this analytical excerpt, we identified 58 (fifty-eight) co-occurrences of the word "teacher," which was confirmed through the similarity analysis. This analysis resulted in three (3) blocks of co-occurrences based on the enunciative units of faculty discourse, as presented in Figure 4:

Figure 4 - Analysis Similarity and co-occurrence between words.
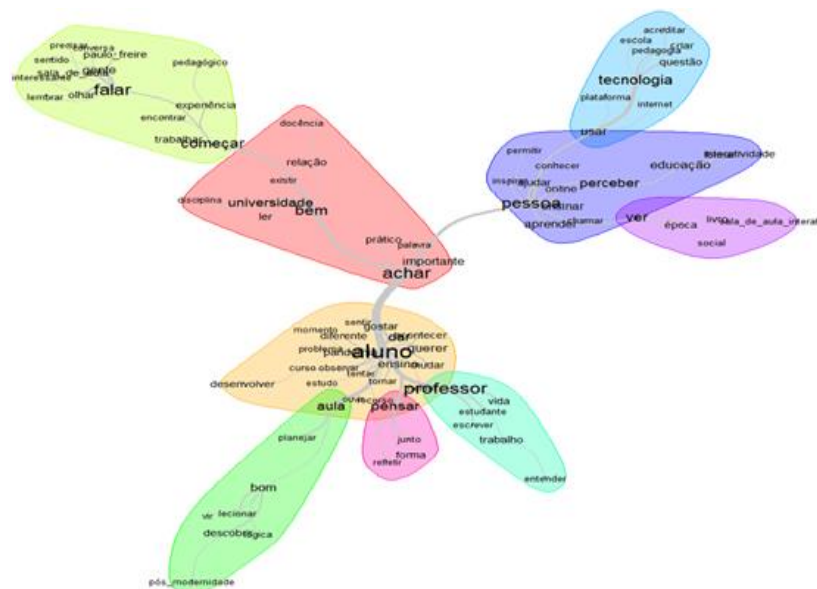
Source: Vieira Neto (2023, p. 10) (Research 2)

As we can observe, the similarity analysis confirmed the categorization of the three (3) CUAs (CUA 1 - orange halo; CUA 2 - dark blue halo; and CUA 3 - pink halo). The flow of the tree-like

16

rooting in Figure 4 demonstrates that CUA 1, Intersubjectivity, is the main class, from which the branches of CUAs 2 and 3 emerge. Within CUA 1, the co-occurrence analysis revealed that the word "teacher" appears 58 (fifty-eight) times.

In this analytical excerpt, it will be demonstrated that the enunciative unit of faculty discourse, "teacher," is a constitutive part of the discursive formation of teaching, as presented below.

Discussion and Development

In Research 1, the phenomenon under study faculty training actions in HEIs was understood and placed in a state of suspension through the application of the phenomenological method as an inspiration:

> […] which suggests a back-and-forth movement. It facilitates the intertwining of ideas, thoughts, studies, and knowledge that continuously seek to unveil what emerges from lived experiences, reality, and the world as experienced. Phenomenology advocates for a constant renewal, introduces a problematization, and remains in a state of aspiration allowing itself to be practiced and recognized as a style, as a movement (ROJAS; BARUKI-FONSECA, 2009, p. 1).

It is worth highlighting that phenomenology helps us understand that going into the field requires shedding any preconceived notions, establishing that *epoché* is fundamental that is, "suspending prior beliefs, a reduction of any a priori theory or explanation" (GARNICA, 1997, p.113).

In the initial phase of the research (2016), it was possible to identify the faculty training initiatives that public HEIs were offering their educators. Subsequently, in another phase (2017/2018), some of these initiatives were explored in greater depth, culminating in an assessment of the status (2018) of certain HEIs that had participated in a pilot study in 2014 with a similar theme to this research. As a methodological procedure, mapping via field research was employed in each stage of data production. Mapping, in this context, involves documenting a specific moment in time, differing from a *state-of-the-art* approach, which presents a historical trajectory of a given fact or phenomenon under study. Mapping, in contrast, is akin to a snapshot of the moment in question, serving as a record of what is currently being done by HEIs. The techniques employed for this mapping process were, (a) mapping through questionnaires; and (b) mapping through interviews.

For data analysis, regardless of the technique used, a qualitative approach was applied. This approach "is based on discussing the connection and correlation of interpersonal data, on the co-

participation of informants' situations, analyzed from the meanings they assign to their actions (Michel, 2005, p. 33).

Table 2 presents a synthesis of the units of meaning, open categories, and assertions identified. Following that, Figure 5 illustrates this analytical excerpt.

Quadro 2 – Unit of meaning/open categories/assertions.

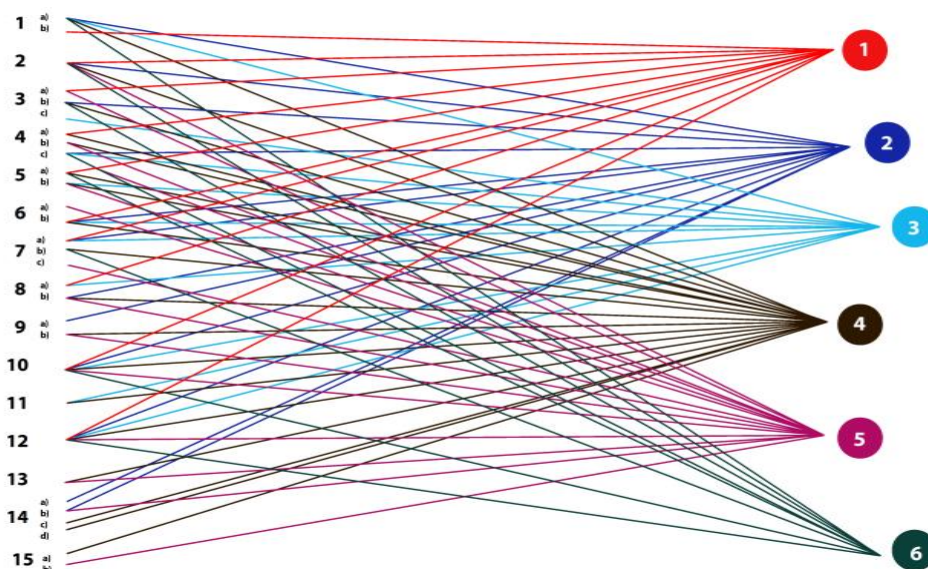| Open category	Unit of meaning	assertions.
Higher Education Institutions and Their Singularities	1. Time in HEI a) less than 10 years b) more than 10 years	a) IES 2, IES 3, IES4, IES 6 b) IES1 and IES 5
	2. Acts as TAE in Management	IES 1, IES 2, IES 4 and IES 6
	3. Actions as Institutional Policy: a) Yes b) no c) Unsure	a) IES 1, IES 5 b) IES 2, IES 4 and IES 6 c) IES 3
	4. Actions Undertaken: a) via demands b) through Specific Projects c) In Other Ways	a) IES 1, IES 4 b) IES 4, IES 5 c) IES 2, IES 3 and IES 6
Teacher Training in Higher Education	5 Type of Adherence a) Mandatory for Probation b) Voluntary	a) IES 1, IES 4 and IES 6 b) IES 3, IES 4 and IES 5
	6 Type of Participation (or Inclusion?) a) Only Faculty and Graduate Students b) Everyone (Faculty, TAE, Students)	a) IES 5 b) IES 1, IES 2, IES 3 and IES 4
	7 Type of Participation by the Faculty of Education a) On Demand as a Partner b) Active Participation	IES 1, IES 2 and IES 3 IES 4 and IES 6 IES 5
	8 Evaluation type: reaction	IES 2, IES 4 and IES 5

Categoria aberta	Unidade de significado	Asserções
	9 Virtual Learning Environment (VLE): a) Facilitates Adherence	IES 2, IES 4 IES 5

Presença das TICs no ensino superior	b) Meets Expectations	
	10 Courses on the Use of ICTs	All
	11 Increased Demand for Distance Education (EAD)	IES 3 and IES 4
	12 Open Access Policies	All
	13 Digital Culture as a Process	IES 4 and IES 5
	14 Challenges a)　Absence of institutional policies b)　ack of incentives and investments c)　lack of awareness among old teachers and location of some campuses	IES 2 IES 2 and IES 5 IES 4

Source: author1 (Research 1)

Figure 5 – Network of units and meanings.

Source: author1 (Research 1)

To synthesize all the statements cited in Table 2, Figure 5 represents a design constructed and thought through the lens of this table on "Units of Meaning/Open Categories/Assertions." It is important to note that this layout allows for a more aesthetic and refined visualization compared to the representation of a matrix, as shown in the table. According to Bicudo (2000, p. 95), this method

of presenting the Nomothetic Matrix... [You can continue this sentence by specifying Bicudo's perspective on the visual representation of matrices, or what his work suggests about presenting data in a more refined and comprehensive manner.

> [...] It allows you to immediately grasp the movement of reduction, in which the articulations between individuals and open categories appear. It's more aesthetic because it presents a graphic that unifies straight lines and dots, which can be colored, connecting the base to broader points of convergence.

The network of meanings is a representative image of a given reality—specific, singular, and unique. It is an aspect explored in phenomenology, where it becomes possible to present elements extracted from the subjects' statements as meaningful and relate them to these subjects. Therefore, the image is the result of this reality I present with these subjects. In this way, each researcher, when working from this perspective, can construct their own image based on the elements obtained. However, to arrive at an image that is considered more representative of the portrayed reality, multiple attempts must be made until a layout is achieved that the researcher deems presentable:

> The network of meanings is not made up of points, made up of concepts, which interconnect to form the web. But each node of the network expresses the lived experience that comprises circles or whirlpools within which each element is representative of all the others and brings like vectors that connect it to them (BICUDO, 2000, p. 97-98).

I must say that the first time I encountered an image of "networks of meaning" was from Bicudo's (2000) book, which depicted a work by his graduate student. I confess I had difficulty understanding the meaning of that image, which looked more like a web. From this dissatisfaction, I sought out other sources. That's when I came across the thesis of researcher Pesce (2003), who had used phenomenology. With these two references in hand, the problem still hadn't been solved. The question was: how did these people manage to produce such images? How were they able to link the units of meaning with their categories? These questions were only resolved after some time of maturation two months in my case during which I transcribed the statements and began analyzing the results. It was during this period that the moment of "epiphany" occurred: a fleeting instant of understanding: "It is a fundamental factor of self-awareness and one's position in the world, or in a particular social group" (MACEDO, 2013, p. 112).

However, from the first attempt to the final image, I produced five different versions in which I tried shifting variables and changing colors until I obtained the final image. This was only possible

after sitting down with a professional in the field to choose the colors that would best allow for visualization.

I believe that for someone reading and encountering the image for the first time, it may seem simple. However, for someone who has lived through and tried to follow this methodological journey, they will better understand the frustrations and uncertainties that arise in deciding and defining that "this is the one," and not "that one," which best represents what is meant to be represented.

In Research 2, the analysis of faculty discourse practices showed that being a teacher is shaped by the recollection and awareness of emotional language (BRUNO, 2021), co-constructed through lived experiences and the everyday experiences in university teaching, fostering new processes of cyberformation in contemporary universities.

As stated by IQ1, memories, when relived, make the subject want to repeat them, fostering the constitution of being a teacher as it is:

IQ1 - Bogotá: "Well, when I was a child, like I think many children want to be teachers, it crossed my mind. [But]... in relation to the memory I have, I would say I visualized this very clearly when I was at university, specifically focusing on university teaching. I am here because I am passionate about it... it affects me, yes".

However, memories can also raise alerts and consolidate other paths of the experienced reality, demonstrating awareness, as if by "crooked lines," of unanticipated paths that daily actions still manage to promote, thereby contributing to the constitution of being a teacher, as stated by IQ6:

IQ6 - Salvador: "[...] So, I didn't have the desire, when I was a child, like many children do, to be a teacher. I had other aspirations, I wanted to be an optometrist, I wanted to be a doctor, anything but a teacher. [...] Becoming a teacher and being a teacher was something that was built from this maternal guidance and then from the choices I made consciously".

The process of constituting the teacher identity through memories and experiences that provoke awareness expresses emotional experiences that lead us to action, triggering changes that shape us as subjects in ourselves. As Bruno (2021, p. 48) states, "From the occurrence of a particular event, the individual, consciously or unconsciously, assigns a value to it; that is, this event can have either a positive or negative value for the individual."

The process of recognizing oneself by looking back and reminiscing allows the individual to understand that we walk in pairs, with steps supported by others, consolidating our effective histories as part of a broader ontological process of human formation and, in our case, the constitution of the teacher identity, as stated by IQ16:

IQ16 - Campina Grande: "I don't see the teacher as just a teacher, who graduated from an institution and that's all. They are the result of an entire culture, of family education, of a whole life history connected to their country. It is all of this that makes up this person, who later becomes the teacher, properly speaking".

This indicates our current condition of understanding ourselves as embodied subjects (NAJMANOVICH, 2001), a conscious body "that knows our peculiar physiology, our biological experience, our differential sensitivity are fundamental [...] [for the subject to engage] in a creative dynamic of oneself and the world with whom they are in constant exchange" (Ibid., p. 23). It is a lived and experiential body, a multidimensional body in constant transformation because we are alive, we relate, and we construct ourselves through effective histories. Thus, we are beings of memories, experiences, encounters, and stories that help constitute the teacher identity and, consequently, promote new principles of formation, as Hooks reminded us:

> When I gave my first class in the undergraduate course, I drew inspiration from the example of the inspiring Black women who taught at my elementary school, from Freire's work (2019), and from feminist thought on radical pedagogy. I had a passionate desire to teach in a way that was different from what I had known since high school. The first paradigm that changed my pedagogy was the idea that the classroom should be a place of enthusiasm, never boredom (HOOKS, 2013, p. 16).

We also found, through the statement of IQ2, that the formative spaces and environments that enhance the constitution of the teacher identity and the subjects resulting from faculty authorship and faculty/student co-authorship along with the actions and cyberformative processes carried out by them, play a crucial role:

IQ2 - Rio de Janeiro: "[...] The pleasure, [in the classroom], was not directed towards, let's say, the teachers who indulge in giving beautiful lessons, making good speeches. [...] So, I never valued this type of class where you're dazzled by the master's oratory. For me, a good class wasn't about the master's good oratory. A good class was one that provoked my authorship, co-authorship, where we had a horizontal relationship with colleagues and with teaching".

The promotion of faculty authorship and faculty/student co-authorship is one of the fundamental principles for the constitution of the teacher identity within university teaching, as well as in what we are calling and understanding as cyberformation: the potential for conscious and emancipatory subjectivation of the teacher identity in the face of formative and technological processes, within both in-person and online formative teaching environments. Cyberformation "is

22

how the teacher fosters relationships (with themselves, with others, and with the environment) and co-authorships that raise awareness and emancipate the subjects" (VIEIRA NETO; BRUNO, 2023, p. 15), as stated by IQ20, IQ8, and IQ:

> ***IQ20 - Cairo****: "*So, there was a moment in my life when I promised myself that the most important thing I would do in my life would be to continue learning always and, then, always share what I learned with others. So, obviously, teaching is just one way to do that".

> ***IQ8 - Mexico City****:* "But I think being a teacher for me is a privilege. Because you can interact with different people and be an influence in their lives in some way".

> ***IQ7 - Tampa****:* "For me, the idea of learning from each person's life experiences impressed me a lot. I think this has always made me think of learning as a process that can truly lead to emancipation, and you have the critical tools to think about this critical pedagogy".

Thus, the condition of being a teacher and a creator of cyberformation processes within contemporary university teaching emerges amid the cybercultural processes that integrate into our lives. Only by understanding this process and living emancipated and engaged in the cybercultural social sphere can we overcome the challenges imposed by the logic of positivity, surveillance capitalism, and the social control relations that oppress individuals in the digital culture, preventing them from "being more" (FREIRE, 2019) in "authentic practice" (Id., 2019). For, "the oppressed [...] need to recognize themselves as humans, in their ontological and historical vocation to Be More. [...] If the moment is one of action, this will become authentic praxis if the knowledge resulting from it becomes the object of critical reflection" (FREIRE, 2019, p. 72-73).

Final considerations

Therefore, the studies/research presented in this article have highlighted that society in general, and especially sectors involved with public policies in the country, have been neglecting the fundamental issues of the work that groups of researchers/educators are building in favor of an education that values the formative quality of democratic educational processes, the development of the ontological, epistemological, and ethical dimensions of human beings, and the consequent conditions of autonomy, freedom, justice, and happiness for individuals—conditions that are inherent to politically engaged and emancipated subjects in contemporary society.

It was observed, on one hand, that (1) formative demands are frequent and constantly emerging as new technologies are highlighted. Higher education faculty, as actors in a given society, are both

protagonists and participants, receiving a generation of young people immersed in digital culture, but not necessarily digitally literate. It will be the responsibility of faculty to have the sensitivity to welcome this generation and guide them in the appropriation of this knowledge, while also recognizing their own limitations in this regard and seeking ways to maintain their professional development in this new context. On the other hand, (2) it is necessary that, within the formative environments for faculty in contemporary universities, discursive practices and teaching actions create "cyberformation processes that awaken transformative, transgressive digital thoughts and practices, accompanied by critical technological awareness and ethical, political, and aesthetic notions that allow the subjects involved to liberate themselves and become autonomous to experience the potentials of cyberculture" (VIEIRA NETO; BRUNO, 2023, p. 16).

Indeed, it is fundamental for the transformation of cyberformative and professional processes that university teaching surpasses formative models based on banking education (FREIRE, 2019) and implemented by technobanking, which reflects the entire education model that uses digital technologies in an instrumental way, detrimental to the creation of emancipatory cyberformation processes for individuals.

In these terms, Research 1 and 2 engage in dialogue and seek clues to understand HEIs, their formative processes, and whether the phenomenon of emancipatory subjectivation arising from cyberformation processes is occurring in the present day.

For now, we understand that we must learn, as Freire (2019) wished, to "be more," a result of cyberformation processes, of "authentic praxis" (Ibid., 2019), of engaged pedagogies (HOOKS, 2013), and of open teaching (BRUNO, 2021) in contemporary university teaching environments, so that we can increasingly promote autonomy, awareness, and the emancipation of the teacher identity and individuals for effective and contemplative life in cyberculture.

The path to be traveled may be long, arduous, and full of questions, but it will certainly be thought-provoking and revealing.

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