# Digital Teaching Narratives: An Ethnographic Perspective On Accounting Education In Tourism In Virtual Contexts

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### **Abstract:**

The article explores virtual educational ethnography as a methodological approach to analyze social and educational interactions in digital environments, highlighting its relevance in social sciences. The global emergency caused by COVID-19 accelerated the adoption of Information and Communication Technologies (ICTs) in education, which imposed new challenges in teaching-learning in different areas of knowledge. From a qualitative and interpretative approach, supported by virtual ethnography, the strategies, perceptions and adaptations of accounting teachers belonging to tourism programs in Colombia, who migrated to virtuality as a result of confinement, are analyzed. It is concluded that it is necessary to adapt pedagogical practices to new technological dynamics, which, although they impose challenges such as affective disconnection and limited student participation, can also constitute valuable tools to guarantee meaningful learning in students and redefine the role of teachers as experience designers and emotional mediators. **Keywords:** virtual ethnography, ICTs, digital education, accounting, adaptability.

## INTRODUCTION

Ethnography has occupied a fundamental place in educational research, providing theoretical and methodological tools that allow us to understand, from a situated perspective, the complex dynamics that configure school and university spaces. Its emphasis on participant observation and the interpretation of meanings has been key to the analysis of pedagogical practices, social relations, institutional discourses, and cultural configurations that influence the construction of knowledge (Atkinson, Coffey, & Delamont, 2001; Vasilachis, 2006). However, this methodological tradition was developed in a context where face-to-face was the structuring axis of educational processes, which implied the physical presence of the researcher in the study scenarios.

With the progressive advance of digital technologies and, more forcefully, as a response to the educational crisis resulting from the global health emergency, there was a forced migration to non-face-to-face modalities. This drastic shift towards virtuality not only transformed the resources and means used in teaching, but also profoundly altered the forms of interaction, the modes of organization of academic time, and the devices for accompaniing learning (Bozkurt & Zawacki-Richter, 2020). In this new scenario, traditional methodologies face the challenge of rethinking themselves in order to address educational phenomena that no longer occur in a tangible classroom, but in environments mediated by technologies, algorithms, and remote communication platforms (Jones & Haythornthwaite, 2021).

It is in this context that educational ethnography in virtual environments is inscribed, an emerging approach that maintains the comprehensive and interpretative spirit of classical ethnography, but that reconfigures its strategies in the face of the dynamics of digital interaction (Hine, 2000; Domínguez et al., 2007). This adaptation does not only consist of transferring techniques to a different medium, but also of problematizing the way in which meanings are constructed, links are established and meanings are negotiated in mediated environments.

technologically. It also raises ethical and epistemological questions about the legitimacy of remote observation, the participation of the researcher in non-physical spaces and the nature of the data obtained through screens, chats, forums or video calls. This study takes as its object of analysis the teaching of accounting in academic tourism programs, a combination little explored in the field of educational research, which reinforces its value as a fertile field for inquiry. In this scenario, accounting education, traditionally associated with technical and operational practice, is stressed by its transfer to the digital environment, where both content and teaching strategies are redefined. In turn, training in tourism requires the development of competencies applied in real contexts, which is altered by technological mediation and the distance between teachers and students.

Beyond examining the mere virtualization of the contents, this work focuses on unraveling the pedagogical, communicative and symbolic framework that sustains the teaching of accounting in tourism programs taught in virtual mode. It seeks to understand how teaching practices are transformed, how the meanings of learning are negotiated in virtuality and what implications this has for the integral formation of students. This perspective is crucial, since the lack of research attention to this field has contributed to a lack of deep understanding of its dynamics, which has a direct impact on the quality of educational practice (Moscoso, 2019).

From a qualitative and interpretative approach, the experiences of the actors involved, their pedagogical decisions, the modes of online interaction and the meanings that emerge in digital teaching environments are explored. The objective is not only to describe what can be observed on screen, but to illuminate the structural, methodological and cultural transformations that redefine the educational act in the contemporary context. In short, this research is committed to making visible an educational reality under construction, marked by uncertainty, but also by the possibility of reconfiguring teaching from new ways of inhabiting knowledge.

The results of the study show how teachers deployed diverse strategies, from the creation of audiovisual content to the construction of learning communities mediated by digital platforms. However, they also faced challenges such as affective disconnection, limited student participation and lack of visual feedback, which profoundly reconfigured their pedagogical role. These tensions are analyzed from a critical perspective in the discussion of the article, where it is argued that the transition to virtuality should not be limited to a technical transformation, but requires a comprehensive review of didactic, affective, and cultural mediations in higher education.

# 1. BACKGROUND

Ethnography has traditionally been a powerful tool for exploring social practices in the educational setting, providing a deep understanding of student-teacher interactions in natural environments (Hammersley & Atkinson, 1995). However, with the accelerated expansion of ICTs driven in part by the global confinement due to the pandemic, a shift towards virtual learning environments has been generated. The virtual teaching-learning process is carried out in the virtual environments of the internet, functioning as an

educational modality, and is guided by Information and Communication Technologies (Varguillas & Bravo, 2020). This has driven the need to adapt research methodologies to new digital spaces, as shown by studies carried out on online teaching (Hine, 2000; Bozkurt & Zawacki-Richter, 2020).

In this context, virtual educational ethnography emerges as a qualitative methodology that allows researchers to investigate the teaching processes on digital platforms. According to Mercado (2012), virtual ethnography facilitates the study of social interactions in online environments, allowing the observation and analysis of educational dynamics in real time. This approach is particularly relevant in the study of accounting teaching in tourism programs, where the transversality of accounting knowledge has gained importance in recent years (Moscoso, 2019).

This approach is particularly relevant to this study, as it allows researchers to inquire into the interactions and understand, from the perspective of the actors themselves, the digital teaching narratives that emerge from the teaching of accounting in tourism programs in Colombia. Here, the transversality of accounting knowledge has gained importance in recent years, and its teaching in virtual mode, a field little explored, offers fertile ground for the investigation of these teaching experiences.

Ethnography in the educational field and more recently in ICT-mediated education. "It delves into the aspects of the context, the processes, the subjects and their interactions; therefore, it is framed in the paradigm of qualitative research, which from the perspective of Montero-Sieburth M. is more than a methodology, since it addresses a position regarding knowledge, its production and its use" Maturana and Garzón (2015, p. 199).

Particularly when the interest of a research is located in a socio-virtual space, there are studies such as the one coordinated by Galindo and Monsiváis (2018) who establish that one of the ways to approach the object of study is virtual ethnography, because this research method allows an approach to the new social environments linked to the technological contributions that have impacted people's daily lives. In this same sense, the research of Mercado (2012) entitled Online qualitative research using virtual ethnography, shows us how virtual ethnography allows a detailed study of relationships in virtual spaces, in which the internet is the daily interface of people's lives and a meeting place that allows the formation of communities, stable groups and the emergence of new ways of relating. Christine Hine, in her work carried out in 2000, 2005a, 2005b and 2008, addressed for the first time the conceptualization, contextualization and relevance of virtual ethnography focused on studies with a double approach to the phenomenon of the Internet: as a culture and a cultural artifact, seeking to subtract questions that until then seemed of little importance due to the presence in which most of the social processes in question were carried out, if not all of the social processes in question. but a marked immersion in the world of the Internet began to be seen, trying to show how our beliefs about the Internet can have important consequences on the individual relationship we have with technology and on the social relationships we build through it.

In trying to subtract from questions related to how do users come to understand the capabilities and possibilities of the Internet? What are the implications of its use? What do they interpret of it as a means of communication and who do they perceive as an audience? How does the Internet affect the organization of social relations in time and space? Is that organization different from that of "real life"? And if the subtraction is affirmative, how do users reconcile the virtual and the real? What are the consequences of the Internet on the senses of authenticity and authorship? How are identities performed and experienced, and how is authenticity judged? Is "the virtual" experienced as something radically different and separate from "the real"? Is there a dividing line between online and offline life?

Hine (2000) explores these issues through an ethnographic study of a particular case in which the internet was the central element. In this context, he managed to establish two different ways of seeing the internet; the first, argues that the Internet represents a place where a culture is gestated: cyberspace, and the second, as a cultural artifact, a product of culture, in short: a technology that has been generated by specific people, with contextually situated and defined objectives and priorities and, also, shaped by the ways in which it has been commercialized, taught and used Hine (2000, p. 19).

Twenty-three years have passed since this first experience from the virtual leveraged on the use of ethnography as a type of research, thus, as defined by Dominguez et al. (2007) rather than forming a corpus of research practices and analysis already established, what is presented under the slogan virtual ethnography shows a wide range of lines of experimentation that respond to the multiple methodological challenges derived from a process of change.

It is recognized that after these first studies, a second wave of ethnographic studies began that would arrive with a diversification of approaches and the exploration of methodological combinations, among which are recognized the reticular ethnography of Howard (2002) that combines with the analysis of social networks, the mediated ethnography of Beaulieu (2004), or the netnography of Kozinets (2002) (Magallanes & Zanotti, 2017).

A third group of studies has been framed by the different technological advances that have been occurring since 2004, the year of the creation of Facebook as a social network that allowed expanding social interaction mediated by the Internet, making the Internet reach 1000 million users in 2005. Subsequently, the appearance of the iPhone in 2007 led to its greater popularity of the mobile web, which would go even more viral in 2009 with the birth of WhatsApp. These technological advances allowed the relationships mediated by the Internet to be enriched with other visual and multimedia resources. Similarly, new tools and collaborative interaction environments give rise to new challenges and lead to a rethinking of ethnographic approaches.

These technological advances not only redefined social interaction, but also promoted new possibilities in the educational field, allowing the exploration of multimedia formats and the consolidation of collaborative spaces. Throughout this evolution, adaptability has been consolidated as a transversal and fundamental axis, not only in the reconfiguration of ethnographic methodologies to address these new digital environments, but also in the intrinsic capacity of teachers to resignify their pedagogical practices in the face of the challenges imposed by virtuality. Thus, Information and Communication Technologies (ICTs), although they imposed challenges in teaching-learning, also became valuable tools to guarantee meaningful learning in students, enabling new forms of interaction and collaboration that virtual ethnography seeks to study in depth.

Other studies identified methodological challenges in the social sciences in the face of new forms of mediated interaction on social networking sites, highlighting the impact of technologies such as web 2.0 and mobile connectivity. Within this framework, contributions have been made to digital ethnography, addressing ethnographic logic, the authenticity of results and the critical analysis of virtual phenomena. In addition, concepts such as post-truth in industrial design are reviewed, and the impact of social networks on the media is explored.

Virtual ethnography is presented as a useful interdisciplinary method to study social practices mediated by technology, considering the epistemological challenges that arise when transferring traditional approaches to digital environments. The studies analyze phenomena such as migrant communities, cyberspace, and social relations in networks

such as Facebook, proposing concepts such as cybersocioanthropology and multi-situated ethnography to understand emerging interactions and sociabilities.

In education, the use of methodologies such as netnography in teacher training and educational design processes is reflected, especially in the context of ICT. MOOCs, open educational resources and learning communities are highlighted as examples of educational migration to digital spaces. Virtual ethnography also allows us to study communities such as the Pro Ana, providing data on their discursive practices.

In recent years, the teaching of accounting has faced a profound transformation due to the irruption of virtual modalities forced by the pandemic. González and Ruiz (2023), in a study carried out in Latin American contexts, identify how accounting teachers had to rethink both their methodological strategies and their forms of evaluation. The authors highlight that, although pedagogical innovation processes were observed, such as the implementation of audiovisual resources and interactive tools, institutional shortcomings were also evident, especially in terms of teacher training and technological support. These findings reinforce the need to analyze accounting teaching not only from a technical dimension, but also from its pedagogical and emotional implications.

In the same vein, Vázquez and Martínez (2022) carry out a critical review of the use of simulators in accounting education, concluding that these tools, although potentially valuable, require careful pedagogical design so as not to become mechanical or decontextualized resources. Their analysis points out that many simulators adopted during virtuality lack adequate didactic integration, which can limit their effectiveness in the development of real professional skills. This reflection is key to rethinking educational technologies not as automatic solutions, but as devices that must be mediated by reflective teaching practices.

On the other hand, from the methodological approach, Gutiérrez and Soto (2020) address the challenges involved in carrying out ethnography in virtual environments during periods of confinement. Her work highlights that virtuality does not eliminate the possibility of conducting rich and deep qualitative research, but it does require new forms of relationship with the field, as well as a redefinition of traditional categories such as "participant observation" or "researcher presence". This contribution is fundamental for this study, since it allows legitimizing the observation of virtual classrooms, forums and video calls as valid ethnographic scenarios, as long as their specificity is recognized and the ethical dilemmas they pose are addressed.

Finally, the growing use of netnography is observed, as well as its potential to explore lifestyles, cultural practices and their integration into new models of teaching and communication, highlighting the interaction between technology and culture as a central axis of analysis in current research.

### 1.1. DEVELOPMENT OF DIGITAL ETHNOGRAPHY IN EDUCATION:

Ethnography has traditionally been a powerful tool for exploring social practices in the educational setting, providing a deep understanding of student-teacher interactions in natural environments (Hammersley & Atkinson, 1995). This methodology is based on participant observation, prolonged immersion in the field and the interpretation of the meanings that the subjects attribute to their actions within a specific context. In the educational field, it has made it possible to examine both teaching processes and relational dynamics, pedagogical discourses and forms of cultural resistance.

During the 1990s, with the rise of the Internet and the formation of virtual communities, a new methodological trend known as digital ethnography began to take shape. Christine Hine (2000), considered a pioneer in this field, proposed the adaptation of traditional

ethnographic methods to digital environments. In his work Virtual Ethnography, he argues that the researcher can study online cultures with the same interpretative rigor as in physical scenarios, recognizing the Internet both as a space where social practices are constructed, and as a cultural artifact that reflects values, ideologies, and power structures (Hine, 2000). At the beginning of the twenty-first century, this perspective was adopted in the field of education. Researchers such as Leander and Sheehy (2002) began to apply digital ethnography methods to analyze the social practices of young people in technology-mediated environments. Their study of adolescent identities in chat rooms identified how subjectivities are configured in hybrid spaces that combine the physical and the virtual, opening up new possibilities for understanding educational processes in digital environments (Leander & Sheehy, 2002).

Subsequently, Robert Kozinets (2010) formalized the concept of "netnography", an adaptation of traditional ethnography for the systematic study of online communities. Its methodological proposal is based on participant observation, textual analysis and active interaction with participants in digital spaces. Kozinets (2010) states that netnography is not only useful for studying consumer behavior on digital platforms, but also for understanding educational, cultural, and social phenomena that emerge in these spaces.

These contributions consolidated the theoretical and methodological foundations of virtual educational ethnography, which has evolved as a powerful and flexible approach to investigate teaching practices, learning experiences, and social interactions in technology-mediated environments. This type of ethnography is not limited to recording the observable, but also allows us to interpret the meanings that teachers and students attribute to their experiences, exploring subjective dimensions such as identity, pedagogical agency, sense of belonging, and emotionality. It is precisely this capacity that makes it particularly suitable for the capture and analysis of digital teaching narratives, offering a deep understanding of how educators adapt and resignify their role in these new educational environments

In summary, the evolution from traditional ethnography to virtual ethnography has been a response to the profound transformations that contemporary societies have undergone in the digital age. This transition has allowed educational research to adapt to the new teaching-learning scenarios, enriching its capacity for analysis and interpretation and strengthening its contribution to the critical understanding of the current educational reality. In addition, it has highlighted how Information and Communication Technologies (ICTs), although they pose significant challenges, are also valuable tools to guarantee meaningful learning in students, enabling new forms of interaction and collaboration that virtual ethnography seeks to study in depth. The relevance of these methodologies is crucial for contexts such as Colombia, where the accelerated migration to virtuality, as a result of the COVID-19 pandemic, has required an urgent methodological adaptation to understand the changes in teacher-student interaction and the very sense of academic community.

### 1.2. BOOM AND CONSOLIDATION:

During the 2010s, digital ethnography experienced a significant boom and consolidation in the educational field. This was driven by the growing understanding that the Internet, beyond being a tool, constitutes a space where culture is gestated and a cultural artifact in itself, as conceptualized by Christine Hine (2000). The contributions of Robert Kozinets (2010) with the formalization of netnography, as an adaptation of traditional ethnography for the systematic study of online communities, were also crucial.

With this base, the methodology turned to the study of digital learning platforms, such as Massive Open Online Courses (MOOCs). Research, such as that carried out by Veletsianos

and Dron (2013), made it possible to understand the experiences of students in distance education environments, highlighting factors such as motivation, autonomy and social interaction. Ethnographic research thus offered a valuable perspective to capture the nuances of these non-face-to-face learning experiences and began to lay the foundations for the understanding of the subjective dimensions and digital teaching narratives that would later acquire greater relevance in educational research."

The arrival of the COVID-19 pandemic in 2020 was a global turning point, dramatically accelerating the adoption of online education and demanding an urgent methodological adaptation of ethnography. This transformation intensified the use of digital approaches to study social and educational interactions in environments fully mediated by technologies, algorithms, and remote communication platforms.

Virtual educational ethnography was thus consolidated as a critical tool for understanding the dynamics of teaching and learning in these new contexts. Research such as that of Bozkurt and Zawacki-Richter (2020) showed how virtual environments required not only a redefinition of traditional categories of research, such as 'participant observation' or the 'presence of the researcher', but also a profound adaptability on the part of teachers to account for changes in interaction, evaluation, and the very sense of academic community. In the current context, characterized by the hybridity between face-to-face and digital, virtual educational ethnography has established itself as a key methodology for analyzing connected learning environments, allowing us to explore how educational experiences are configured in a permanently connected world where the boundaries between the physical classroom and digital spaces are increasingly blurred (Jones & Haythornthwaite, 2021).

This consolidation underscores that Information and Communication Technologies (ICTs), although they imposed significant challenges such as affective disconnection, limited student participation and lack of visual feedback, were also valuable tools to guarantee meaningful learning in students, enabling new forms of interaction, collaboration and innovative learning. This aspect is crucial for education in Colombia, as this study demonstrates, and for understanding the adaptability of pedagogical practices in fields such as the teaching of accounting in tourism programs, where the ability to resignify the teaching role is fundamental."

This approach is particularly relevant to the teaching of accounting in tourism programs, a little-explored field that requires the development of competencies applied in real contexts, which is altered and redefined by technological mediation and distance. Digital ethnography, in this field, allows us to critically investigate how interactions, discourses and pedagogical practices are articulated in virtual environments, offering valuable inputs for the design of more meaningful, reflective virtual learning environments adapted to the needs of the student of the twenty-first century.

### 2. METHODOLOGY

# 2.1. METHODOLOGICAL APPROACH

This study is part of a qualitative interpretative approach, aimed at understanding how accounting teachers in university tourism programs experienced and managed the transition to virtual environments during the COVID-2019 health emergency. The qualitative paradigm allows us to explore experiences from the perspective of the subjects, paying special attention to the meanings, contexts and social processes that shape educational action. This approach is essential to understand the adaptability of pedagogical practices in the face of the challenges imposed by virtuality, a central aspect that the study seeks to reveal.

From an epistemological perspective, qualitative research is not based on a single model, but admits multiple traditions and methodological strategies. According to Atkinson et al. (2001), this diversity is a strength, as it facilitates the holistic understanding of complex phenomena such as virtual education. For Denzin and Lincoln (cited in Vasilachis, 2006), the qualitative approach is a form of inquiry that combines multiple methods, with an emphasis on meaning, social interaction, and situated interpretation.

# 2.2. RESEARCH DESIGN: VIRTUAL EDUCATIONAL ETHNOGRAPHY

In coherence with these principles, virtual educational ethnography was chosen as the main methodological design. This approach allows us to study teaching practices in digitally mediated contexts, maintaining the interpretative richness of traditional ethnography, but adapted to the logics of the virtual environment.

Virtual ethnography, defined by Hine (2000), is a methodological strategy that enables the study of social phenomena that take place in digital spaces. This adaptation of classical ethnography allows us to explore the ways in which meanings, relationships and practices are constructed in environments mediated by information and communication technologies.

In the educational field, this approach is relevant to analyze how teaching-learning processes are transformed in contexts such as virtual classrooms, asynchronous platforms, videoconferences and social networks. In particular, virtual educational ethnography allows us to capture the symbolic, emotional and organizational dynamics that run through online teaching, being especially suitable for unveiling digital teaching narratives and their adaptability to virtuality.

# 2.3. INFORMATION COLLECTION TECHNIQUES

Two main techniques were used, selected for their suitability for capturing digital teaching narratives and understanding pedagogical adaptability in virtual environments:

a) Semi-structured interviews Eight virtual interviews were conducted with accounting professors linked to tourism programs in Colombian universities. The selection of participants focused on teachers with experience in teaching accounting in tourism programs and who had transitioned to virtuality as a result of the COVID-19 confinement. The aim was to include a diversity of teaching experiences in universities in the country, which enriched the perspective on the strategies and adaptations implemented. The interviews were carried out through the Google Meet platform, with an average duration of 60 minutes, and were recorded and transcribed with informed consent.

The questions explored the pedagogical strategies used, the use of digital tools, perceptions of student participation, and the emotions associated with the online teaching experience. These interviews allowed teachers to directly articulate their experiences and reflections, constituting a primary source for the understanding of their digital teaching narratives.

b) Floating observation in virtual environments Non-intrusive observations were carried out in synchronous virtual sessions and asynchronous spaces such as forums and LMS platforms (Moodle, Classroom). "Floating observation" in the virtual context, as an ethnographic approach, implies an open and diffuse attention on the part of the researcher, without a predefined focus, which allows capturing patterns of interaction, emerging dynamics and the general atmosphere of the digital environment without a constant and explicit direct participation of the observer.

This technique is especially useful for exploring virtual ethnographic scenarios, as Gutiérrez and Soto (2020) point out, by redefining the notion of "participant observation" in non-physical environments. The observations were made in a sustained manner during the

period of the second semesters of 2021 and 2022, a period that aligns with the dates of the interviews and the context of accelerated virtualization. This observation complemented the interviews by identifying patterns of interaction, resources used, methodologies applied, and characteristics of the virtual environment, corroborating and enriching the digital teaching narratives collected.

Regarding ethical considerations for virtual observation, the protection of the privacy and anonymity of the participants was prioritized. Educational spaces were observed that, although virtual, had a degree of openness for academic purposes or where consent for the general observation of pedagogical practices was managed at the institutional level. In the case of asynchronous forums or chats, it was ensured that the data collected was treated anonymously, without identifying students or other non-direct participants. The ethical dilemmas of remote observation were addressed by recognizing the specificity of these scenarios and the importance of researcher discretion, as stated in the literature on virtual ethnography.

# 2.4. ANALYSIS OF INFORMATION

The analysis was carried out through inductive thematic categorization, following the principles of open coding of grounded theory. This approach was ideal for extracting and constructing digital teaching narratives, as it allowed the identification of recurrent patterns, tensions and variations in the observed pedagogical practices, as well as the "meanings" and subjectivity that emerge from the teachers' discourse.

The categories and topics were constructed from the data, enabling a deep understanding of the experiences and adaptations of teachers in the face of virtuality. The findings were interpreted in the light of the theoretical framework and the institutional context of the teachers. The triangulation between interviews and observations allowed validating the findings and giving solidity to the interpretative analysis, ensuring a multifaceted understanding of digital teaching narratives.

#### 3. RESULTS

The findings of this virtual ethnographic study reveal the complex and multifaceted adaptability of accounting teachers in tourism programs in Colombia to forced migration to virtual education. The digital teaching narratives collected through interviews and floating observation show both a deployment of innovative pedagogical strategies and the confrontation of structural and emotional limitations and challenges.

# 3.1. PEDAGOGICAL STRATEGIES AND ADAPTATIONS FOR TEACHERS IN VIRTUALITY

The transition to virtual education, accelerated by the global COVID-19 emergency, prompted teachers to deeply resignify their pedagogical practices and to integrate a wide spectrum of digital tools. This adaptation not only guaranteed academic continuity, but also led to the emergence of new digital teaching narratives focused on enhancing meaningful learning. As has been proposed in this work, virtual ethnography is consolidated as a methodology that allows us to understand digital culture and the impact of ICT on educational processes, offering valuable perspectives to understand and plan contemporary education.

During this period, platforms that were of marginal use in the academic field, such as Google Classroom, began to become widespread, while others already consolidated, such as Moodle, were revalued and enhanced, becoming fundamental pillars for content

management and online assessment. Teachers, in their quest to maintain the pedagogical link and training quality, adopted an ecosystem of diverse tools. For example, interactive platforms such as Kahoot, Nearpod, Socrative, and Quizizz were positioned as key resources for teaching, formative assessment, and feedback, facilitating learning from interactive and dynamic approaches. These tools allow the deployment of innovative pedagogical strategies that stimulate concentration, active participation and experiential learning, promoting collaborative work and the development of critical skills, in line with a socio-constructivist vision of learning.

A professor interviewed illustrates this technological appropriation: "(...) Now with the virtual theme the exercise is done more on a platform, I have been using virtual classrooms for several years, not only because of the pandemic, the truth is that I have been using virtual classrooms for 5 or 6 years, I use virtual classrooms in accounting so that they can practice on their own, so that they read and now with this I use some platforms to make the readings more pleasant: Actively Learn, Nearpod or Kahoot. All of these help to make it more dynamic, but it is always like that, a theoretical and practical topic" (Professor, online interview, November 17, 2021).

Beyond management and evaluation platforms, digital teaching narratives also revealed a marked trend towards the production and use of audiovisual resources as pedagogical support tools. Teachers created YouTube channels to offer content in more accessible, dynamic and flexible formats. This strategy allowed students to access the materials at the most convenient time, and to review the explanations as many times as necessary, favoring autonomous and flexible understanding.

The implementation of these audiovisual resources was frequently articulated with the flipped classroom model, where synchronous time was dedicated to resolving doubts, deepening concepts and applying knowledge in practical exercises of payroll management, hotel costs, auditing in the tourism sector and financial analysis. In this way, the visual resource became an input that enhanced interaction and improved comprehension during online meetings. As one teacher puts it: "(...) the boy must come to enter my channel, and here on my channel we have more or less 40 training videos, in all the contexts of the subjects that I handle (...) the boy must arrive at the class with that video already seen, what do I do in the class? What questions are there? that we didn't understand? How do we go deeper? because it is that it results from the things that I prefer to do in my classes, it is to use the class as such, to do exercises and not to wear myself out in theory" (Teacher, online interview, October 11, 2021).

At the same time, teacher adaptability was manifested in the creation of virtual learning communities led by the teachers themselves through the use of social networks. Platforms such as Facebook made it possible to create groups by subject, where tasks were shared and advice was offered through live broadcasts. Likewise, instant messaging applications such as WhatsApp were consolidated as key channels for the distribution of content, the sending of reminders and academic accompaniment, weaving student support networks.

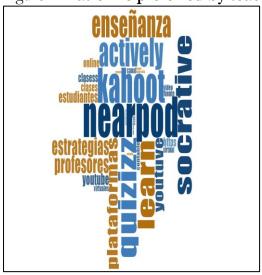
This practice, documented through virtual educational ethnography, evidences the ability of teachers to resignify their role and transform their pedagogical practice, integrating digital media that enrich the learning experience and respond to the demands of contemporary education.

In short, a new educational paradigm has been consolidated in which emerging technologies are not presented as external elements to pedagogy, but as integral components of it, transforming digital platforms into spaces for the construction of meaning and collaborative learning. Among the most prominent platforms are Moodle and

Google Classroom for fundamental content management and assessment, while for synchronous communication and class streaming, Google Meet and Zoom were used. Additionally, interactive tools such as Kahoot!, Nearpod, Socrative, and Quizizz were key resources for dynamic teaching, formative assessment, and feedback. For audiovisual content and asynchronous learning, YouTube became an essential medium for the creation of channels with tutorial videos and the promotion of the flipped classroom. Finally, for instant communication and the construction of virtual communities, WhatsApp and Facebook played a crucial role in the distribution of content, reminders and advice. Figure 1 illustrates how teachers have integrated a diverse ecosystem of tools into their virtual educational practice, reflecting their adaptability and the various digital strategies

Figure 1 Platforms preferred by teachers

used.



Source: Authors' elaboration based on Nvivo qualitative information analysis software.

# 2.2. CHALLENGES AND LIMITATIONS IN THE IMPLEMENTATION OF VIRTUAL EDUCATION

Despite the remarkable display of adaptability and digital strategies by teachers, the implementation of virtual education was also marked by significant limitations and challenges, which clearly emerged in the digital teacher narratives and observations.

One of the main challenges identified was the tendency of some teachers to move their physical classroom to their homes, replicating the traditional model (board, scoreboard) and using basic tools such as Zoom or Google Meet to broadcast their classes. This stance, while ensuring continuity, limited the harnessing of the pedagogical potential of emerging technologies and the exploration of more transformative digital teaching narratives.

In addition, the research documented various obstacles associated with virtual teaching-learning processes from the perspective of interaction and connection. Teachers perceived difficulties on the part of students to concentrate, low interaction manifested in cameras turned off, and the sudden disconnection of students at key moments of the sessions. These situations made it difficult to timely diagnose gaps in learning and limited the possibility of providing personalized support, compromising the effectiveness of the training process.

"Affective disconnection" emerged as a critical dimension. The difficulty in establishing empathetic bonds and reading gestures in the virtual environment was pointed out by teachers as one of the main shortcomings, affecting not only the quality of the training

process but also the well-being of educational actors. In this sense, the shortcomings of the student body often went unnoticed, hidden behind the screen, which demanded new strategies to maintain attention and ensure the understanding of the contents.

In summary, although the advances in technological integration in accounting teaching in tourism programs were important, there are still challenges associated with teacher training, digital infrastructure and the need to overcome merely expository pedagogical models. Addressing these challenges will be key to consolidating a quality, sustained and transformative virtual education, capable of responding to the demands of a changing and technologically mediated environment.

### 4. DISCUSSION

The findings of this study, obtained through digital teaching narratives, reveal the complexity of the transition to virtuality in the teaching of accounting in tourism programs in Colombia, as well as the remarkable ability of teachers to adapt to resignify their pedagogical practices in the face of an adverse and unexpected context. In line with previous research highlighting educational transformation (Bozkurt & Zawacki-Richter, 2020; Veletsianos & Dron, 2013), it is confirmed that accelerated virtualization demands more than technical skills: it requires flexibility, creativity, and a deep willingness to rebuild the educational experience.

One of the main contributions of this research is the visibility of the innovative strategies that emerged from the teaching base, such as the production of audiovisual content and YouTube channels, the adoption of flipped classroom models, and the integration of interactive and management platforms such as Kahoot, Nearpod, Moodle and Google Classroom. These practices not only show remarkable pedagogical agency and adaptability, but also an emerging understanding of the possibilities offered by the digital environment to enrich learning, as suggested by studies on pedagogical innovation in Latin American contexts (González & Ruiz, 2023).

However, digital teacher narratives also revealed the presence of structural tensions and constraints that hinder the transformative potential of virtual education. Among them are the absence of specific institutional training for virtuality, the persistent technological gaps between teachers and students, and the difficulty in transcending predominantly expository pedagogical models, which affects the consolidation of truly significant didactic proposals. Simulators, although valuable, can become mechanical resources if they lack careful pedagogical design (Vázquez & Martínez, 2022), and the lack of adequate didactic integration limits their effectiveness in a virtual environment. Added to this is a crucial and often underestimated dimension in official discourses on digital education: affective disconnection. The teaching narratives pointed out the difficulty in establishing empathic bonds, interpreting gestures and generating authentic and deep interaction in the virtual environment, perceived as one of the main shortcomings. This aspect, as Jones and Haythornthwaite (2021) point out, affects not only the quality of the training process, but also the socio-emotional well-being of all the educational actors involved.

The virtual teaching experience, particularly in a specific context such as that of accounting for tourism in Colombia, challenges traditional notions of the teaching role. As evidenced by digital teaching narratives, teachers are no longer limited to being a transmitter of knowledge; His role expands to become a designer of active learning experiences, a critical curator of digital content, and a fundamental emotional mediator in complex and uncertain scenarios. This multifaceted role is a clear manifestation of the adaptability demanded by virtuality.

In this framework, virtual educational ethnography proved to be an exceptionally robust methodological tool to capture the symbolic, emotional, and cultural dimensions of online teaching. Its application made it possible not only to describe observable behaviors, but, crucially, to interpret the meanings, tensions, and profound resignifications of the teaching role that are not always evident in quantitative records or standardized evaluation studies, recognizing the redefinition of categories such as "participant observation" in these environments (Gutiérrez & Soto, 2020).

These findings therefore invite us to rethink the institutional approach to virtual education, proposing a more comprehensive and holistic model. This model must contemplate not only the appropriate technological infrastructure, but also continuous teacher training in digital pedagogies, effective emotional management in the virtual classroom, and the creation of authentic learning communities that foster bonding and active participation. Although virtuality imposes significant challenges, as has been observed, ICTs can also be valuable tools to guarantee meaningful learning in students, as long as they are integrated in a reflective way and supported by a robust pedagogical and emotional ecosystem. The consideration of phenomena such as artificial intelligence (Fuenmayor, 2024) must also be integrated into this rethinking, ensuring that technology is not only a support tool, but a means that transforms pedagogical dynamics in a significant way (Sarmiento, 2007).

### 4. CONCLUSIONS

The findings of this study, obtained through the analysis of digital teaching narratives and virtual ethnographic observation, confirm that the teaching of accounting in tourism programs in Colombia experienced a profound resignification of the teaching role in digital environments as a result of the COVID-19 emergency. The adaptation of pedagogical strategies to the virtual space revealed both the remarkable capacity for innovation of teachers – through the creation of audiovisual content, the adoption of flipped classroom models and the integration of interactive platforms – as well as the existence of resistance to change and the persistence of structural challenges. This underlines the imperative need for institutional policies that promote the development of digital teaching competences in a structural way and not merely circumstantial.

The digital environment, far from being a mere instrumental context, is established as a complex space of symbolic production, where meanings are negotiated, identities are constructed and new forms of teaching-learning are developed. Virtual educational ethnography, as a methodological approach, proved to be an exceptionally robust tool to capture this richness, allowing a holistic, deep and situated approach to the cultural dynamics of digital education and to the subjective experiences of teachers. Its application made it possible to document and interpret digital teaching narratives that account for pedagogical adaptability and agency, as well as the tensions inherent in virtuality.

Although technological tools offer multiple possibilities to personalize, diversify and expand access to knowledge, constituting valuable tools to guarantee meaningful learning in students, they also present significant limitations. The study evidenced challenges in terms of academic follow-up, a crucial affective bond – the "affective disconnection" described in the discussion – and the persistence of the digital divide. Digital fatigue and the emotional overload of teachers and students must be proactively addressed through comprehensive educational policies that transcend mere technological implementation.

Therefore, this study highlights the urgency of moving towards hybrid educational models that are not conceived only as a technical combination of modalities, but as a critical articulation between knowledge, technologies and contexts. A critical digital pedagogy

should promote reflective thinking, media literacy, educational justice, and active student engagement, preparing future tourism professionals with a comprehensive understanding of their field in a digitalized world.

Beyond being a methodology, virtual ethnography is projected as an epistemological stance committed to understanding educational complexity in the digital age. Its application makes it possible to document, interpret and, potentially, contribute to transforming school realities from within, based on the authentic voices, practices and meanings of their protagonists, that is, on their digital teaching narratives.

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