Instagram educators in Latin America. An approach to their practices and potential

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Introduction: Instagram, a visually-driven platform preferred by 85% of global influencers, remains underutilized in the educational domain. In Latin America, a region marked by socio-technological contrasts, the emergence of educational content creators—or "edugrammers"—has gained momentum, yet little is known about their strategies and impact. This study explores how these microinfluencers shape informal learning through Instagram.

Methods: A descriptive and exploratory study with a mixed-methods design was conducted, grounded in digital ethnography. The research involved mapping 2,318 Instagram profiles using manual extraction, Python, and Talend algorithms, refining the dataset to 2,214. A final sample of 14 Latin American edugrammers was analyzed based on audiovisual, discursive, and engagement characteristics.

Results: The selected edugrammers collectively reach over 2.28 million followers and predominantly publish content in Arts and Humanities, Education, Engineering, and Social Sciences. They favor reels and visually compelling formats, incorporating platform affordances such as questions, emojis, calls to action, and personalized storytelling. Their audiovisual material reflects high levels of narrative consistency, resolution quality, and user engagement strategies.

Discussion: The findings reveal the emergence of a new educational microinfluence dynamic. Edugrammers leverage Instagram's communicative tools to establish informal yet impactful pedagogical relationships. However, underused resources like humor and expert collaborations present opportunities for future growth. The study highlights the value of interdisciplinary digital literacies and media pedagogies in strengthening these educational ecosystems.

Conclusion: This research provides a foundational model for understanding edugrammers in Latin America as transformative agents in informal digital education. Their content strategies, platform use, and pedagogical engagement reflect evolving instructional trends that merit further exploration and integration into broader educational practices.

KEYWORDS

education, instagram, social media, walktrough, influencers, edugrammers

1 Introduction

Instagram is accessed by approximately two billion monthly users worldwide. This social network is especially popular among young people aged 16 to 24 (We Are Social & Meltwater, 2023), specifically within the Millennial and Generation Z cohorts (Fernández, 2021) and is known for its visually-centered content (Tarullo and Sampietro, 2022). The Millennial generation (1981–1996) and Generation Z (1997–2012) (Rodríguez and Ballesteros, 2019; Priporas et al., 2020; Taylor and Keeter, 2010) constitute the largest active user groups on Instagram, representing 31.2 and 30.8% of the global audience, respectively (Statista, 2024). While both generations exhibit high levels of digital literacy, they differ in behavioral and communicative patterns. Millennials, who witnessed the emergence of the internet and mobile technologies, are characterized by adaptability, a preference for authenticity, and a tendency toward self-directed content exploration (Turner, 2015). In contrast, Generation Z—born into fully digital environments—displays a marked preference for short, fast-paced, visually driven content and frequently engages across multiple platforms simultaneously (Fromm and Read, 2018; Taylor and Keeter, 2010).

Instagram, as a visually-oriented and interaction-driven platform, aligns well with the communicative preferences of these generations. Its engaging and creatively designed interface (Goodrich et al., 2015; Kuehn, 2021), along with its diverse in-app functionalities, encourages immediacy, personalization, and active user participation (Sidorenko-Bautista et al., 2021). Within this context, the proliferation of digital storytelling has given rise to the phenomenon of 'neotelling,' which reflects the contemporary audience's constant impulse to narrate and share experiences. This trend has fostered new communicative modes intertwined with technologies that function as extensions of the human body (De-Casas-Moreno et al., 2018; Openshaw, 2014). This concept extends beyond merely possessing technological devices; it centers on leveraging available tools to enrich storytelling, capturing user attention through messages that integrate diverse resources and optimize the potential of each moment to ensure memorability. This is further compounded by changes in Instagram's APIs and algorithms, which shifted the display order of posts (Beltrán-Flandoli, 2023), replacing chronological order with a prioritization of content tailored to user preferences, thereby accelerating the pace of information consumption (Cantón-Correa and Alberich-Pascual, 2019; Doval-Fernández and Sánchez-Amboage, 2021).

In this hyperconnected world, where multimedia and digital resources dominate over analog forms, certain established professions—such as teaching—have reshaped their practices and the way they engage with their audiences, adapting to new methods of storytelling and digital modes of communication (Herranz-de-la-Casa et al., 2019). In this context, Instagram assumes a social function within the evolving landscape of social media (Martínez-Rolán et al., 2019). This platform is not only one of the most popular among users but also the most widely used in commercial settings (IAB, 2019). Likewise, content creators view it as an essential tool for promoting their work, with 85% of influencers choosing Instagram as the ideal medium for sharing their stories (IndaHash, 2020).

This scenario is related to the information needs reflected in the COVID-19 pandemic, which highlighted the urgency of having valuable educational resources in non-traditional contexts. The pandemic context strengthened the niche of educational content creators. During this period, many teachers began to familiarize themselves with the creation of videos or art within various applications to reinforce the content taught in their virtual classes. In addition, this dynamic was combined with the need of students to find information that would allow them to continue their education from home. In the Latin American context, the confinement highlighted the social inequalities that still exist in guaranteeing the right to education (Juanes Giraud et al., 2020). In addition to the lack of technological infrastructure and Internet access, there were also deficiencies in teacher training and pedagogical resources. These difficulties are exacerbated when it comes to teaching through digital media (Diez-Cordero and Cabrera-Berrezueta, 2021; Sánchez Gómez et al., 2020). Based on above, this study aims to identify and analyze the practices of digital educators in Latin America, particularly those who create content for Instagram, to determine the defining characteristics of "educational influencers," their growth potential, and how they leverage the platform's various tools to expand their educational impact.

1.1 Digital communities and microinfluences: 'Edugrammers'

The concept of the "internet celebrity" (Abidin, 2018) is closely associated with prominent transmedia formats on Instagram. Among these, 'microinfluencers' represent smaller communities yet demonstrate high levels of engagement (Enke and Borchers, 2019; Pérez Curiel and Clavijo Ferreira, 2017). These 'microinfluencers' have denoted great depth and effectiveness in specific spaces due to their constant interaction and authenticity (Sarmiento-Guede and Rodríguez-Terceño, 2020). The phenomenon involves peer influence, personal connection, constructed social practice, word-of-mouth qualification and transparency (Agulleiro-Prats et al., 2020). In this context, 'edugrammers' emerge as influencers dedicated to produce educational content (Izquierdo-Iranzo and Gallardo-Echenique, 2020). These 'edugrammers' have evolved toward a more professional approach that has required them to have adequate planning and organization to improve the quality of their publications (Perifanou et al., 2021). Their primary role is to present educational content in a clear and accessible way, fostering trust and engagement with their followers while linking the content to real-world contexts (Schroeder et al., 2021). Young audiences find this type of educational content appealing, as it supports their learning processes through observation and interaction with other users (Córdova-Tapia et al., 2022a).

The pedagogical-visual grammar of Instagram is based on the unique configuration of posts on the platform, its interactivity and the functions it offers (Jaramillo-Dent et al., 2022). To be successful as 'edugrammers', Secilla Garrido (2021) highlights the importance of these profiles having technological, pedagogical, socio-communicative, cognitive, emotional and didactic-methodological competencies. These competencies guarantee a solvent and effective use of technology, guiding users toward learning objectives, managing attractive content, understanding the needs of followers, creating a trusting environment and planning activities that encourage participation and collaborative learning.

Due to its isonomy, Instagram plays a significant role in shaping educators digital identities and supporting their growth within virtual educational environments (Carpenter et al., 2020). It is an important platform because it allows them to connect, share educational content

and pedagogical ideas, and generate additional income through the promotion of educational products and activities (Shelton et al., 2020). The use of humor, especially through memes and audiovisual content, is prominent in educational Instagram accounts, which contributes to online interaction and community building (Gil-Quintana and Vida de León, 2021).

Regarding the narrative implemented by 'edugrammers' in their publications, Gil-Quintana and Vida de León (2021) group different concepts to typologically classify educational influencers according to the type of content they share. This approach highlights four groups: (1) Studigrammers - 'teacherpreneurs', who are donors of resources and didactic materials; (2) Learning influencers, who use social networks such as Instagram to promote learning situations, those related to the sector (3) Academic-research and those who support the development of skills or of (4) Curriculum-explanatory. In addition, the content shared by these influencers can be classified according to the subject matter addressed in their profile. Thus, in the educational context, we can group content creators according to knowledge domains (UNESCO, 1997), distinguishing 11 groups: General Programmes and Skills; Education; Arts and Humanities; Social Sciences, Journalism and Information; Administration, Business and Law; Physical Sciences, Natural Sciences, Mathematics and Statistics; Information and Communication (ICT); Engineering, Industry and Construction; Agriculture, Forestry, Fisheries and Veterinary; Health and Welfare; Services. Within each area, more specific sub-areas and themes are specified to accurately classify educational content, variables that can be used in the context of creating and disseminating content on the Instagram social network.

1.2 The possibilities of communication specialization of 'edugrammers'

The transmedia nature of Instagram, shaped by its distinctive micronarrative characteristics (De-Casas-Moreno et al., 2018) and the diverse contexts embedded in its functionalities, influences the dynamics of interaction between users and the platform. Originally, for Gibson (2015), these conditions of use can be explained as 'affordances', specific possibilities for action facilitated by the digital environment. In the realm of digital pedagogy, Leonardi and Vaast (2017, p. 818) define these 'affordances' as "digitally mediated spaces that provide specific linguistic resources," which shape and constrain modes of expression and interaction.

From an eco-media perspective (Hurley, 2019), Instagram's 'affordances' for engaging with niche communities, such as educators, can be characterized through its system of concrete interactions. These include actions like "exploring" and "locating-positioning," which involve tracking content across a wide range of formats and users (Leaver et al., 2020). Additionally, actions such as "personalizing," "distributing" and "collecting-suggesting" arise as responses to others' content and the anticipation of reactions to one's own content (Maares et al., 2021).

These 'affordances' are grounded in algorithmic settings, likes, hashtags, mentions, and the enabling features of mobile devices (Chintalapati and Daruri, 2017). Thus, the practice of "instagramism" coined by Manovich (2020), refers to the platform's features, publishing options, and editing tools that promote a new aesthetic of normalizing the projection of personal intimacy (Bossio, 2021). For Arévalo Iglesias et al. (2021), the specificities of this digital environment reinforce the user's ability to construct and represent a persona, originally presented in Goffman's theory (1959). According to the authors, an identity is represented in a controlled and selective way, elaborating it with a "constructed authenticity" and a "prepared spontaneity" (Abidin, 2016).

At the discourse level, the "affordances" of Instagram for the microinfluence of educational practices can be analyzed through the strategies that 'microinfluencers' use to provoke an enunciative-deliberative contract (Sabich and Steinberg, 2017; Scolari and Fraticelli, 2019). This synergy is based on specific formats established within the network and on the effective use of its functionalities, manifested through argumentative, emphatic, informative (Lee, 2023), and dialogic simulations (Androutsopoulos, 2013). These exchanges are structured through the management of copy, comment moderation, and the translation of discourse into tangible actions such as calls to action, posing questions, and sharing resources (Carpenter et al., 2020).

On the other hand, at the level of audiovisual content, for authors such as Anzola-Gómez et al. (2022) and Jaakkola (2019), the native formats of Instagram include textual reviews, video meta-coverage, visual effects, and facilitated expressions that allow different cultural mediations. Some of the evolving tools that represent 'affordances' in the educational framework also include stories and reels as repositories (Pinsker, 2020), the use of emoticons, stickers, gifs, tagging or collaborative live broadcasts (Doval-Fernández and Sánchez-Amboage, 2021). The use of the platform's *add music* feature expresses different moods and eases the operational burden in the production process (Reza Flores et al., 2023). Similarly, the *green screen* function in Instagram reels allows the addition of backgrounds in images and videos to productions, which implies possibilities such as contextualization, immersion, and dynamization of perceptions through narrative in a teaching-learning framework (Nguyen, 2023; Stein et al., 2022). The concept of microinfluence we discuss is supported by the distinctive features of Instagram, which act as organic mechanisms for attracting attention, especially by 'edugrammers' as specialized users. In this way, we explore the communicational and pedagogical strategies these profiles use to connect with their audience and improve their online teaching practices (González-Carrión et al., 2022).

2 Materials and methods

2.1 Research objectives

The main objective of this study is to analyze the communicative and pedagogical practices of Latin American educational influencers— referred to as *edugrammers*—who use Instagram as a platform for disseminating educational content. The research is guided by the following specific objectives:

- To define and systematize a relevant corpus of Latin American *edugrammer* profiles, through the articulation of conceptual frameworks, methodological criteria, and multi-source data collection techniques, applying both structural and organic indicators to validate the selection.

- To identify the identity elements that characterize *edugrammers* in Latin America, using a qualitative coding matrix based on existing literature.
- To describe the communicative strategies employed by *edugrammers* as microinfluencers, through discourse analysis and the application of specific codes, as well as audiovisual markers to assess their engagement techniques and narrative style.
- To analyze the functionalities and affordances of Instagram leveraged by these content creators to enhance their educational practices, by examining the use of platform features and evaluating them through audiovisual analysis with predefined technical and narrative indicators.

2.2 Procedure

The study is descriptive and exploratory in nature and employs a mixed-methods approach, combining quantitative and qualitative techniques to gain a comprehensive understanding of the subject matter (Pereira Pérez, 2011). The research was conducted in phases, employing a range of data collection techniques and the digital ethnographic immersion or "walkthrough" method (Light et al., 2018). The objective of this approach is to examine the technological mechanisms, functionalities, and possibilities of a digital environment through direct interaction with its interface and presentation devices, with the aim of understanding the experiences that can be generated within it. This methodological approach is justified by the novelty of the research on the figure of the 'edugrammer', particularly in the absence of a ranking, list, or justified recommendations from any educational organization about this type of influencers in the Latin American context.

The principal objective is to examine the communicative particularities and how the visual narrative of Instagram is used by this digital community, aiming to identify their defining characteristics as microinfluencers. In practical terms, the study is driven by the goal of understanding how these content creators, who actively seek online visibility through strategies linked to the microinfluencer phenomenon, make use of Instagram's functionalities (Abidin, 2016). The research questions that guided our inquiry were as follows:

Q1: What identity elements characterize the community of educational influencers on Instagram ('edugrammers') in Latin America?

Q2: What are the communicative characteristics of 'edugrammers' as 'microinfluencers' on Instagram?

Q3: What functionalities and resources of the platform do 'edugrammers' use to extend their educational work?

2.3 Identificaction of 'edugrammers' profiles. Combination of techniques and tools

The research builds on a body of previous research on instagrammers and youtubers in the entertainment sector (Córdova-Tapia and Rivera-Rogel, 2020; Córdova-Tapia et al., 2022c; Rivera-Rogel and Córdova-Tapia, 2021; Rivera-Rogel et al., 2022), as well as on educational influencers in other platforms (Córdova-Tapia et al., 2022c; Córdova-Tapia et al., 2022b; González-Carrión et al., 2022; Tejedor et al., 2022), to establish initial selection criteria that would enable the collection of a sample aligned with the research objectives. In this regard, the study also considered the following organic indicators: (1) Belonging to the Latin American region, (2) Non-profit profiles with no declared ideological transmission purpose, (3) Shared information based on scientific or academic sources, (4) Original content creation; and other structural indicators: (5) Weekly publication frequency, (6) Posts with comments, (7) Accounts' feed aligned with educational purposes, (8) Active profile for at least one year, (9) Minimum of 100 posts, and (10) Minimum of 2,000 followers.

The profile extraction process took place from July to October 2022 and employed three data collection techniques. Following the "cognitive walkthrough" approach (Light et al., 2018), the study initially (during the first three weeks) focused on educational content on Instagram, adhering to the established selection criteria. This was done through an iterative ethnographic process, for which a specific account was created. Daily immersions and subsequent exits were conducted to prevent algorithmic bias in later phases of the study. Likewise, the research explored the basic possibilities of the platform within the framework of the study topic, taking periodic annotations and systematizing some features about the narrative used and the most concurrent elements. The study used the "discover" functionality by entering keywords or country of origin and #hashtags such as: #education #edugrammer #educational. In this way, it was possible to establish the first pull of profiles according to the recommendations offered by the application.

In addition, the work also applied a script using Python and Talend (Instagram, 2018; Van Rossum, 2007) to identify more 'edugrammers' profiles according to the characteristics presented. This process allowed extracting information from posts containing the hashtags 'educacion' and 'educación' with more than 11.2 billion and 127,400 views, respectively, using an algorithm written to take advantage of HTTPS requests, which delimited information from Latin American and Spanish-speaking accounts. Furthermore, cleaning criteria (number of likes, language, account identifier and public accounts) were established to filter the accounts of interest. Through this mechanism, the study was able to complete the corpus of selected accounts with profile-mapping metadata, such as 'followers', 'followed accounts', 'number of publications', 'biography', 'account name', 'associated website', among others. This method was implemented for two weeks in the months of September and October 2022.

To ensure accuracy and analytical value, a rigorous data-processing pipeline was implemented. This involved a hybrid methodology that combined Python scripts and Talend Open Studio for Data Integration. While Talend facilitated large-scale cleaning, transformation, and deduplication of structured data (e.g., CSV), Python enabled the customized treatment of semi-structured and unstructured data, such as textual content and profile metadata. The process included language detection, spam filtering, and thematic classification based on educational keywords and interaction metrics. Additionally, Python's NLP modules were used to analyze the biographies and usernames of public accounts to infer the probable country of origin based on linguistic cues, thereby ensuring the dataset's Latin American representativeness. This computational

FIGURE 1
Post of the edugrammers research. Adapted from @utpl profile [Photo], 2022, Instagram.

approach not only improves the scalability and replicability of the analysis but also enhances the precision of selecting authentic edugrammer profiles aligned with the objectives of the study.

Finally, the study applied an online survey (Estalella and Ardevol, 2011) promoted through social networks (Instagram, Facebook, Twitter, LinkedIn @utpl accounts with more than 500 thousand followers) (Figure 1). This technique enabled consultation with students about the educational influencers they were most familiar with. The survey was conducted from July to October 2022, in parallel with the other data collection methods. The application of methodological complementarity in this research facilitated the verification of overlaps and helped minimize errors that may arise when relying on a single data source (Pereira Pérez, 2011).

Through manual extraction, the research obtained 58 profiles. The Python and Talend algorithms generated 2,214 results. Finally, the survey collected 161 responses, from which 46 profiles of potential 'edugrammers' were identified. These three sources of information provided a total map of 2,318 profiles. At the end of the research phase, a consolidated sample of 14 Latin American 'edugrammers' with a combined total of 2,287,916 followers was selected. It is important to clarify that the methodological design did not predetermine a fixed number of profiles. Instead, the final selection emerged through a rigorous triangulation process involving manual extraction, algorithmic filtering (Python and Talend), and survey-based data collection. From the initial corpus of 2,318 profiles, progressive screening based on ten organic and structural indicators was applied to identify those accounts that most robustly exemplify

the figure of the educational microinfluencer in the Latin American context. This cutoff point was not arbitrary but reflected the profiles that consistently met all predefined criteria, while also providing a balanced representation in terms of geographic origin, disciplinary diversity, and content typology. The study's objective is not statistical generalization but the identification of exemplary cases that enable a deeper understanding of how educational influence is constructed and communicated on Instagram in Latin America. This approach aligns with previous qualitative research focused on the exploration of emergent digital phenomena through case-based logic (Carpenter et al., 2022; Secilla Garrido, 2021).

Alongside this, to explore variations in digital practices based on visibility and audience reach, the selected *edugrammer* profiles were further categorized into two groups: established and emerging. This classification was guided by quantitative thresholds commonly used in influencer marketing literature (NeoReach, 2019) and adapted to the educational context. Profiles with more than 100,000 followers, a minimum of three years of continuous activity, and over 300 posts were categorized as *established*. In contrast, *emerging* profiles were defined as those with 2,000 to 10,000 followers, less than three years of activity, and a moderate or low publication volume (under 300 posts). These thresholds allowed for a structured yet flexible segmentation of the sample, facilitating comparative insights into content strategy, communicative style, and the use of Instagram's functionalities across different levels of online consolidation.

Several precautions were taken to ensure methodological neutrality and avoid algorithmic bias in the data collection process. Data extraction was carried out from Ecuador without the use of VPNs, as Instagram's content segmentation does not vary significantly between regions such as Ecuador and the United States. However, to reinforce impartiality, new observational Instagram accounts were created specifically for this study, avoiding prior interactions that might influence platform recommendations.

Multiple accounts were used to comply with Instagram's data access policies and to prevent automated access restrictions. These accounts did not engage in any activity beyond passive navigation, thus ensuring a consistent digital footprint. Additionally, the research team adopted technical measures, such as clearing browser history and cache, performing searches in the incognito mode, and alternating between different devices, networks, and browsers to reduce data personalization.

From a technical standpoint, Instagram's search and content discovery mechanisms are highly personalized and influenced by user activity, location, interaction history, and device use. By using newly created accounts with no behavioral data and systematic access protocols, this study aimed to mitigate these factors and preserve the reliability of the data-collection process.

2.4 Analysis of the content from two levels

The subsequent phase centered on analyzing the posts of the selected 'edugrammers' to describe their educational components within the dynamic environment of Instagram (Leaver et al., 2020). This analysis focused on each profile's static image post and the reel with the highest number of comments at the time of analysis.

TABLE 1 Descriptions of analysis plans for educational instagrammers in Latin America.

Analysis plane	Category	Subcategory	Code
Speech plane	Deliberation How 'edugrammers' use deliberative communication to promote critical dialog and enrich their audience's learning process		Questions
			Debate
			Examples
			'Call to action'
			Humor
	Multimodal use of the platform Qualitative analysis of the use of the 'possibilities'/functiona-lities of the platform to transmit and position a message.	Copy Ability of the 'educational influencer' to write effective copy, i.e., persuasive and eye-catching text used to promote or highlight content, products or services.	Hashtags
			Introduction-closing
			Reinforcement information
			Emojis
Content plane	Personal projection Image of the 'edugrammer' in front of the camera and features that characterize him and his channel.		Narrative type
			Characterizations
			Personal aesthetics
	Deliberation How 'edugrammers' use deliberative communication to promote critical dialog and enrich their audience's learning process.		Collaborations
	Visual Aspects that stand out in the influencer's video or artwork, what is observed on screen.		Graphic line
			Resolutions and format
			Planes and angles
			Animations
			Textual emphasizers
	Sound Aspects that influence the sound, what can be heard.		Background music
			Functionality
			Voice-off
			Sound effects

According to Turkle (2012), 'commenting' on a post represents the highest level of engagement, surpassing actions such as 'liking' and 'sharing'.

On one hand, the discourse analysis was framed within a qualitative study that involved the exploration, tagging, and coding of thematic categories (Androutsopoulos, 2013; Lee, 2023). In this context, the research systematically sought to identify patterns and trends in the discourse of 'edugrammers': oral expressions, copy text, grammatical structures, tone, style, etc. The goal was to determine elements such as the use of formal or informal language, audience engagement through *calls to action* and deliberation prompted by questions and examples, as well as the types of interaction tools employed (hashtags, emojis, links, etc.). On the other hand, the content analysis focused on a quantitative audiovisual examination, studying the platform's functionalities and vernacular language (Jaakkola, 2019; Pinsker, 2020; Jaramillo-Dent et al., 2022). Here, the technical and production aspects of the content played a central role in the investigation. The data were analyzed using Atlas. Ti software, applying a set of codes developed through an inductive-deductive process derived from the phased design of the research (the complete coding matrix can be found at figshare: doi: 10.6084/m9.figshare.24171726.v1). Table 1 presents a summary of these elements.

3 Results

Table 2 presents the identity traits of the profiles selected for this study. Additionally, data extraction revealed two distinct groups within the sample of Latin American 'edugrammers'. The first group consists of content creators with a large follower base (over 100,000 followers), while the second group includes those with follower counts between 2,000 and 10,000, meeting only the minimum follower threshold established for this research (except for the profile @matematicasprofealex, which has 45,800 followers). The first group, labeled 'consolidated', comprises educational content creators who have been active on the platform for more than five years and have garnered a substantial follower base. These characteristics align with the lower tier of 'nano-creators' (p.4), as defined by the NeoReach (2019) and Influencer Marketing report, which categorizes content creators across different domains. In contrast, the second group, defined as 'emerging,' includes 'edugrammers' who are either relatively new to the platform or have a more modest niche audience. This grouping allowed for a comparative analysis across visibility levels. For instance, established *edugrammers* showed higher audiovisual production consistency and clearer branding, while emerging creators displayed more experimental formats and pedagogical spontaneity.

TABLE 2 General information on Latin American educational instagrammers.

	Profile	Country	Profile creation date	Followers	Posts	Academic fields (UNESCO)	Typology 'edugrammer'	Category
1	Doctor.sutura	Argentina	Jan-21	10,800	55	Engineering, Manufacturing and Construction	Academic / Research	Emerging
2	Levinsergio	Argentina	Dec-14	2,487	350	Engineering, Manufacturing and Construction	Academic / Research	Emerging
3	Rodsimas	Brazil	Sep-12	141,000	398	Education	Academic / Research	Established
4	Soycienciaycocina	Chile	Nov-16	644,000	595	Arts and Humanities	Curriculum-explanation	Established
5	Matematicasprofealex	Colombia	Jul-19	45,800	655	Physical Sciences, Natural Sciences, Mathematics and statistics	'Teacherpreneurs'	Emerging
6	Soydanny.arte	Ecuador	Jul-17	337,000	380	Education	'Teacherpreneurs'	Established
7	Lapoliteka_ec	Ecuador	Jul-20	6,417	427	Arts and Humanities	'Teacherpreneurs'	Emerging
8	Pablolomeli.memoria	Mexico	Nov-17	3,500	1,386	Social Sciences, Journalism and Information	Curriculum-explanation	Emerging
9	Financieritos	Mexico	May-19	3,773	578	Social Sciences, Journalism and Information	Academic / Research	Emerging
10	Jonathanheres	Panama	Jan-18	850,000	1,002	Business, Administration and Law	Academic / Research	Established
11	Anecnotes.medic	Peru	May-20	121,000	215	General areas	Curriculum-explanation	Established
12	Historia_latinoamericana	Peru	Mar-20	4,202	360	Engineering, Manufacturing and Construction	Academic / Research	Emerging
13	Urckari	Uruguay	Aug-16	1,912	119	Arts and Humanities	Academic / Research	Emerging
14	Eldiariodeunpapa	Venezuela	Dec-15	124,000	3,208	Arts and Humanities	Academic / Research	Established

In terms of the areas of knowledge covered by 'edugrammers' in the samples, the study indicates a preference for content related to Arts and Humanities (four profiles), followed by three creators focused on Engineering, Manufacturing and Construction. Additionally, two profiles each cover Education and Social Sciences, Journalism, and Information. Finally, the study identified only one profile in each of the following areas: Physical Sciences, Natural Sciences. Mathematics and Statistics; Administration, Business and Law; and General Studies.

The sample results reinforce the concept of the 'edugrammer' as an influencer dedicated to disseminating knowledge on a variety of topics with the goal of educating through non-traditional media. Table 2 provides a typological classification of these educational content creators, with a total of eight accounts devoted to sharing academic or research-based material. These are educators who leverage the platform to share knowledge in their respective fields, presenting academically grounded content or engaging in scientific communication on their own research, often accompanied by instructive lessons. Additionally, the study identified three 'edugrammers' who focus on skill development through an explanatory curriculum approach. The remaining three profiles fall within the 'Teacherpreneurs' category.

3.1 'Edugrammers' and the use of copy

The most prominent variable within the content is the use of questions, with seven instances employed by three 'edugrammers' (@rodsimas, @eldiariodeunpapa, and @doctorsutura) as a strategy to

engage their audience through text. The use of questions disrupts the linear flow, inviting followers to feel part of the content and to perceive their opinions as valued by the 'edugrammers'. For instance, @doctorsutura begins the description of a reel with the question "✅Have you ever wondered how to stitch a heart?" This approach piques the audience's curiosity, encouraging them to watch the video to discover the answer.

In examining the "debate" code, no examples were identified in the sample of 'edugrammers' who utilize phrases to initiate discourse with their audience on the subjects they present. Notwithstanding the fact that certain topics give rise to this discussion due to the disparate positions they encompass, this strategy has not been employed by content creators. This is exemplified by the profile of @lapoliteka, which, despite its focus on political issues that typically give rise to debate, does not utilize this resource in the publication under analysis (Figure 2), thereby failing to encourage its followers to express their positions in comments.

The presentation of examples is a crucial element in a text, as it enables the transfer of the topic of study to real-world scenarios, thereby capturing the audience's attention. However, only two 'edugrammers' incorporate examples into their content (@soycienciaycocina, @urkari). However, the absence of examples is compensated for by the "call to action," which includes five related quotes from @financieritos, @anecnotes.medic, @pablomeli.memoria, and @levinsergio. This strategy is particularly effective in prompting the audience to take a specific action, often aligned with a specific educational objective (Figure 3).
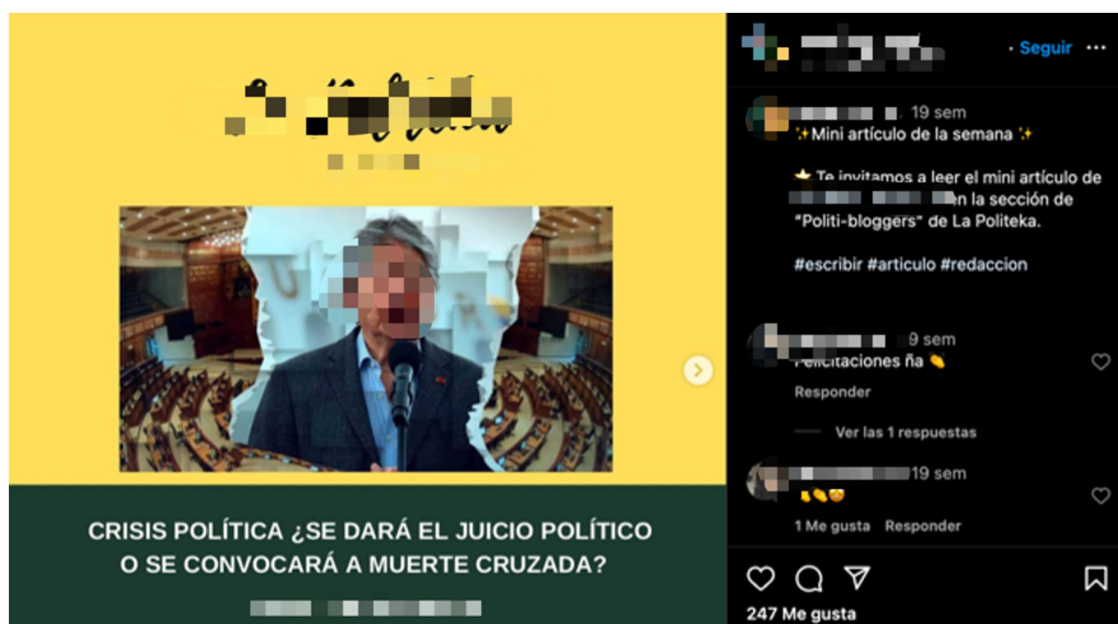
FIGURE 2
'Edugrammer' post linked to possible debate. Adapted from @lapoliteka_ec profile [Photo], 2022, Instagram.

FIGURE 3
'Edugrammer' post call to action. Adapted from @anecnotes.medic profile [Photo], 2022, Instagram.

Finally, humor is not evident in the content analyzed. In this sense, no content was found that used this strategy to attract the user's attention. This lack of disruptive approaches such as humor could be a criticism to the creators of educational content in social networks. The expectation is that these new methods of learning will match the interests of students, not only migrating a traditional education to the digital, but also renewing the way knowledge is shared and forged.

On the other hand, the study detects the existence of a notorious preponderance of hashtags within the text as identifying resources of the contents, located in 12 of the 14 'edugrammers' analyzed (@soydanny.arte, @soycienciaycocina, @rodsimas, @pablomeli. memoria, @urckari, @matematicasprofealex, @levinsergio, @lapoliteka_ec, @anecnotes.medic, @eldiariodeunpapa, @financiereritos, @historia_latinoamerica). The hashtags posted express phrases/words directly related to the topic presented as a mechanism for disseminating information, both specific and generic tags: #educaciónfinancieraparaniños, #soydanny, #política, #geografíaenunminuto. On the other hand, the use of an introduction and conclusion at the level of the text accompanying the post is evident. The study has identified seven 'edugrammers' (@eldiariodeunpapa, @financieritos, @jonathanheres, @lapoliteka_ec, @levinsergio, @matematicasprofealex, @pablomeli.memoria) who use defined techniques to attract attention at the beginning or end of their text, marking opening or closing points that integrate motivational phrases (Figure 4).

The reinforcement information is consolidated to support the content and generally leads to longer texts. However, only three 'edugrammers' (@historia_latinoamericana, @soycienciaycocina, @soydanny.arte) integrate disaggregated content that adds value to the topic presented. In particular, the inclusion of additional data that can be useful to reinforce the content stands out. This inclusion is done by attaching the bibliographic references from which the information was extracted, or by sharing different titles that allow to go deeper into the topic covered in the post. In this sense, Figure 5, for example, shows how the profile @historia_latinoamericana places research references in the copy that can be used to expand on the topic explained in the carousel.
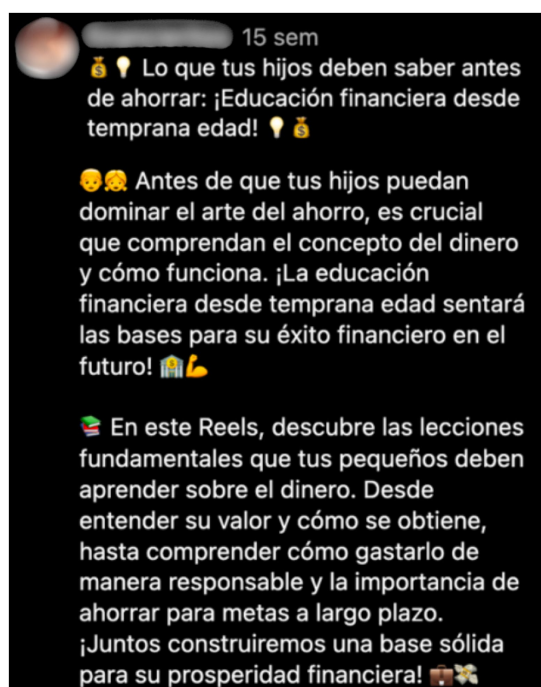
subject matter depicted. Eight 'edugrammers' employ emojis to enhance the dynamism of their communicative processes. These emoticons are utilized to accentuate specific elements within the text or to facilitate a more dynamic reading experience (Figure 6).

3.2 Reel as a discursive strategy of the 'edugrammer'

The incorporation of queries within the context of the reels represents a promising avenue for educational influencers to capture the attention and subsequent engagement of users. This resource is made visible through the inclusion of a text within the audiovisual content, either as a permanent element or at the outset of the reel. This approach is exemplified by five 'edugrammers' (@rodsimas, @levinsergio, @urckari, @historia_latinoamerica, @matematicasprofealex), who have identified the posing of questions as a strategy for stimulating interest and encouraging user engagement with the content (Figure 7).

Similarly, the introduction of a "call to action" within the video is interpreted as a direct invitation to perform an action. This practice is observed in the content of only three profiles (@levinsergio, @ soydanny.arte, @pablomeli.memoria), which include invitations to participate and direct motivations to convert their audience into active entities in front of the material they are given.

Finally, the incorporation of emojis serves as a consistent element throughout the material, functioning as a means of expressing emotions pertaining to the posts or identifying the

Conversely, the utilization of exemplifications represents a recurrent strategy employed by the 'edugrammers' of the sample to illustrate the subject matter in a practical manner (@rodsimas,

@soydannyarte, @lapoliteka_ec, @anecnotes.medic, @levinsergio). These profiles link this element to the proposal of practical cases as exemplification of the topic raised to the audience through real actions demonstrated in video. Figure 8 illustrates how the content creator moves to the car to illustrate the importance of seat belt use. Additionally, throughout his narrative, he employs examples of situations where not wearing a seat belt can be tragic.

Finally, the humor code, although commonly associated with social networks, does not gain significant prominence among the 'edugrammers', appearing in only one reel (@financiereritos), which features an animated and humorous scene to explain the content (aligned with its target audience of children).

Regarding the use of audiovisual elements to convey messages, the study identifies three main codes that 'edugrammers' consistently employ: an introduction and closing as the primary tactics to engage their audience; reinforcing information that provides a detailed breakdown of the topic; and, to a lesser extent, the use of emojis to visually enhance content. Among the 14 'edugrammers', 11 emphasize a clear opening or closing in their videos, incorporating elements such as sound effects, questions, exclamation marks, indirect user engagement (like reading a comment), storytelling, and highlighted text within the video. The reinforcement information code, on the other hand, represents an opportunity at the reel level for 'edugrammers' to expand their content and provide additional context on the topics they present to their audience. Six profiles (@levinsergio, @soyciencienciaycocina, @jonathanheres, @matematicasprofealex, @eldiariodeunpapa, @urckari) delve deeper into their topics by adding supplementary information, a shared characteristic among them. For instance, @jonathanheres, in explaining a theory regarding speedometer regulation in cars, includes additional context: "*For example, in the European UN-ECE regulation 39.*" On a related note,

although emojis are commonly associated with Instagram's user engagement, only three 'edugrammers' (@rodsimas, @soyciencienciaycocina, @anecnotes.medic) find it worthwhile to incorporate emojis within their videos. This suggests that emojis are primarily used in written text rather than in audiovisual content.

3.3 Personal projection

The image projected by the 'edugrammer' on camera, along with the distinctive traits of both their persona and channel, plays a crucial role in this communicative domain. These characteristics help foster a bond with their community, enabling viewers to identify with what they see on screen. The study found that nine of the 14 'edugrammers' analyzed appear on video, showing their faces while providing explanations (@soydanny.arte, @soycienciaycocina, @rodsimas, @pablomeli.memoria, @urckari, @matematicasprofealex, @levinsergio, @lapoliteka_ec, @jonathanheres). This approach facilitates recognition and creates a sense of closeness with the audience. For the five accounts where the 'edugrammer' does not appear on camera, they use compilations of moving images to illustrate the topic.

Regarding personal aesthetics, ten of the 14 'edugrammers' studied present an informal image (@soydanny.arte, @rodsimas, @pablomeli.memoria, @urckari, @levinsergio, @lapoliteka_ec, @jonathanheres, @anecnotes.medic, @soycienciaycocina, @matematicasprofealex), considering both their attire and their overall appearance on camera. Additionally, two of them employ unique identifiers that make them recognizable even to new viewers (@soycienciaycocina, @matematicasprofealex). These identifiers include wearing clothing with their logo or an embroidered name of the 'edugrammer' (Figure 9).

3.4 Deliberation

The study has identified that those who act as educational influencers use deliberative communication to promote critical dialog and to enrich the learning process of their audience. This aspect is related to the same code that was analyzed in the qualitative interpretation (both in the copy and in the reel), with particular emphasis on the participation of experts in the creation of content. Of the 14 materials analyzed, only one features guests. The @rodsimas channel presents a reel with information and phrases in English according to the level of proficiency, relying on two additional colleagues (who possess a more advanced level of English) to illustrate how they would refer to a specific situation (Figure 10).

3.5 Visual

The study examined key aspects in the videos, specifically elements observed on screen that relate to the post-production of the material. This analysis centered on five variables: graphic style, resolution and format, framing and angles, animations, and textual emphasis. First, the study assessed the presence of a graphic line, an essential factor for followers to recognize the edugrammers' brand. The research identified five 'edugrammers' who have established this

parameter, distinguishing themselves through consistent typography, color schemes, and logos in their videos (@levinsergio, @pablomeli. memoria, @urckari, @soycienciaycocina, @anecnotes.medic). Additionally, watermarking was evident in five reels, serving as an anti-plagiarism tool that prevents other accounts or creators from repurposing their material. Regarding template use, three videos employed a pre-set template that incorporated subtitles, informational banners, and other standardized features across all videos.

In addition, the work has evaluated the use of different shots and angles in the production of materials, as a measure of the audiovisual production or camera handling knowledge that the analyzed 'edugrammers' possess. In terms of shots, five videos use a variety of frames, coinciding with the five profiles that use a variety of angles (@soydanny.arte, @pablomeli.memoria, @jonathanheres, @soycienciaycocina, @anecnotes.medic) (Figure 11). The research also analyzed the quality of the resolution of each video, where ten reels were found to have good image resolution. It is important to note that this section is currently essential to attract the attention of the audience. The use of a format suitable for the platform allows to point out ten videos that fit the ideal dimensions of the reels (1,080 × 1920 pixels or a ratio of 9:16), thus taking advantage of the entire screen of the device, considering that Instagram is a vertical social network designed to be used on mobile devices.

Concerning technical analysis, video resolution was not assessed through pixel extraction or metadata-based computational methods due to Instagram's proprietary encoding and display compression. Instead, resolution and framing quality were inferred through systematic visual inspection supported by native download tools and validated by cross-device previews (desktop/mobile). This approach is consistent with visual ethnographic methodologies applied in audiovisual social media research (Stein et al., 2022; Reza Flores et al., 2023).

Regarding the use of animation, the study shows that more than half of the creators in the sample use this resource. In this regard, the study identifies nine videos that use transitions or editing resources, such as changes in the rhythm of the clip or overlapping images (@soydanny.arte, @soycienciaycocina, @pablomeli.memoria, @urckari, @matematicasprofealex, @levinsergio, @jonathanheres, @historia_ latinoamerica, @anecnotes.medic). This aspect shows that the 'edugrammers' in the sample do have editing skills. However, the use of the "green screen" is not so common among the reels analyzed, since only one of the 14 videos uses this resource to put the audience in the place of the facts without being physically present (@matematicasprofealex). On the other hand, half of the 'edugrammers' present the use of contextual images in the videos. Specifically, seven videos use these resources to illustrate their account (@soycienciaycocina, @pablomeli.memoria, @urckari, @matematicasprofealex, @levinsergio, @jonathanheres, @historia_latinoamerica).

In relation to the use of textual markers, which highlight key words in the influencers' discourse, the study found eight profiles that

FIGURE 8
Edugrmaer post. Exampling in reel. Adapted from @levinsergio profile [Photo], 2022, Instagram.
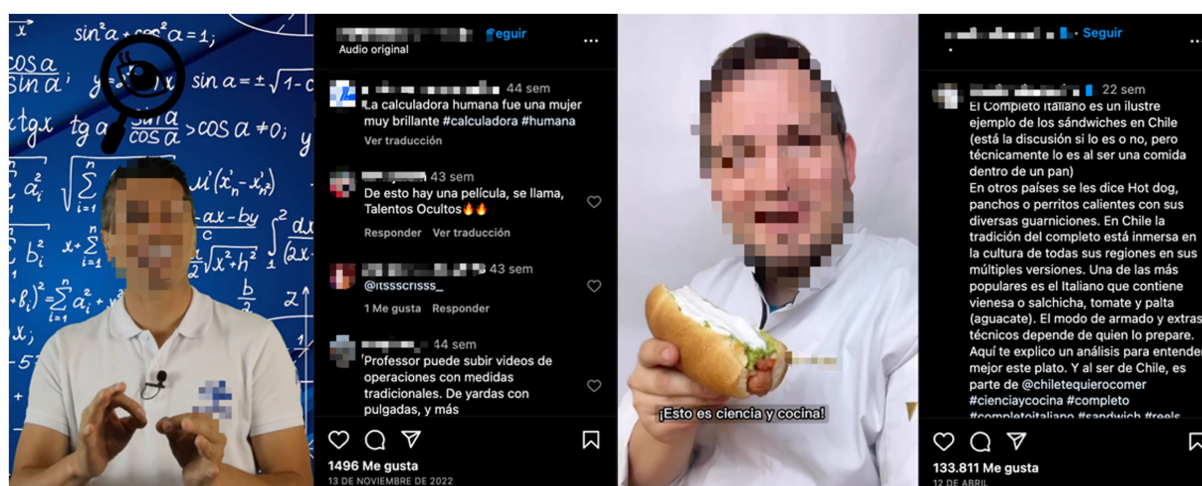

FIGURE 9
Edugrammer post with identification on clothing. Adapted from @lmatematicasprofealex y @ soycienciaycocina profiles [Photo], 2022, Instagram.

use them when editing the video (@levinsergio, @rodsimas, @pablomeli.memoria, @urckari, @matematicasprofealex, @jonathanheres, @historia_latinoamerica, @anecnotes.medic). This aspect facilitates the understanding of some topics and makes it easier for the audience to remember relevant aspects. The research also analyzes the presence of subtitles to facilitate speech comprehension. Thus, within the sample, three videos were found that use them (@soycienciaycocina, @levinsergio, @jonathanheres). The absence of

this resource can be attributed to the fact that their content is directed at an audience that shares the same language, and the edugrammers' clear vocalization often eliminates the need for subtitles (Figure 12). In addition, the position of the text is crucial to determine whether the analyzed influencers adequately use the platform and the format that Instagram handles, along with the tools offered by the application (affordances). In this sense, the study identifies seven contents that respect the limits set by Instagram so that the text is not overshadowed

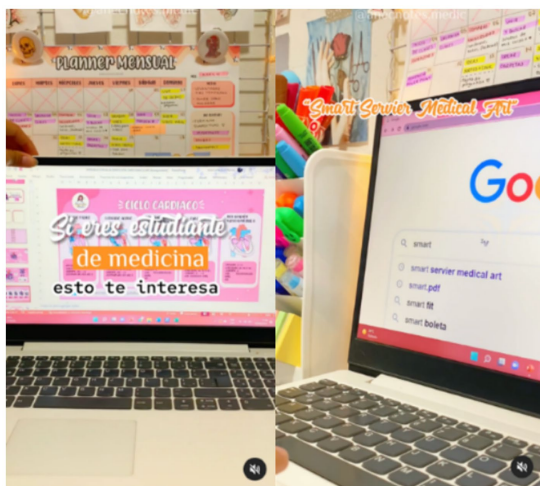Posts that in includes invitations (collaborations) to other experts. Adapted from @englishwithrods [Photo], 2022, Instagram.

Planes and angles in reels. Adapted from @anecnotes.medic profile [Photo], 2022, Instagram.

by the functions of the application (interaction spaces, role information, application tools). From the typography used, it can be concluded that these additional resources (with the exception of those used by @rodsimas) are not added in the application editor, but in external applications.

To facilitate the interpretation of these findings, it is worth recalling that the categories presented in this section stem from a structured coding matrix based on two analytical levels: discourse (e.g., deliberation, calls to action, multimodal use of language) and audiovisual content (e.g., presence on camera, technical quality, expert collaboration). These variables were operationalized through a qualitative-quantitative approach and coded by three researchers following a semiotic and film analysis methodology. The full coding framework, including detailed definitions and indicators for each variable, is available at figshare: doi: 10.6084/m9.figshare.24171726.v1.

3.6 Sound

We conducted an inductive analysis of the audio elements present in each video to address the role of sound in the educational content produced by edugrammers. While there is limited literature that explicitly categorizes sound in educational social media content, prior work by Owens et al. (2017) demonstrated the importance of analyzing audio data in learning environments using the DART algorithm to classify classroom activities through patterns in acoustic features. Although our study differs in context and purpose, this precedent highlights the relevance of sound analysis in educational research.

Based on a systematic observation of the selected Instagram reels, we developed a classification scheme based on recurring auditory features and their communicative function. The categories that emerged are: (1) **Original sound**, referring to unedited audio recorded live during the video capture; (2) **Background music**, which includes tracks added during post-production to complement visual elements; (3) **Music from Instagram's library**, where users selected platform-provided music to

FIGURE 12
Textual emphasizers and subtitles in reel. Adapted from @pablolomeli.memoria y @soycienciaycocina [Photo], 2022, Instagram.

enhance engagement; (4) **Voice-over**, denoting narrative audio recorded separately and layered over visuals to explain or contextualize the content; and (5) **Sound effects**, including non-musical audio elements inserted for emphasis or dramatization. This approach allowed us to identify how edugrammers strategically deploy sound as a multimodal resource to enhance meaning-making, engagement, and affective resonance in educational communication.

Finally, the research has analyzed the aspects that influence the sound and the uses that the 'edugrammers' make of these resources. Thus, it is observed that ten of the roles analyzed use the original sound of the video, using as a single resource the recording they make, without further complications in the sound editing (@soydanny.arte, @rodsimas, @pablomeli.memoria, @levinsergio, @lapoliteka_ec, @jonathanheres, @eldiariodeunpapa, @soycienciaycocina, @matematicasprofealex, @financiereritos). On the other hand, in nine contents, the use of background music is added as a resource to fill the existing silences in the video or simply to give a more striking color to the material (@soydanny.arte, @pablomeli.memoria, @levinsergio, @jonathanheres, @soycienciaycocina, @matematicasprofealex, @anecnotes.medic, @historia_latinoamericana, @urckari). Of the 14 reels analyzed, five take advantage of the music functionality offered by the app (@historia_latinoamericana, @anecnotes.medic, @soydanny.arte, @soycienciaycocina, @jonathanheres), adding music from Instagram's library to accompany the story or harmonize the video. In this regard, it is worth mentioning that the use of an audio uploaded by another user can help viralization or obtain a greater reach, since the video will appear when someone enters the audio used. The voice-over, on the other hand, appears in three videos where the recording of an audio is distinct from

the original sound with which the video was recorded (@anecnotes.medic, @soycienciaycocina, @urckari). This attribute is often used when overlapping images or reinforcing material are shown on the screen. Finally, the work reveals a deficiency in the use of sound effects in the sample analyzed. Specifically, in two reels (@anecnotes.medic, @pablomeli.memoria), the use of these extra sounds demonstrates a greater mastery of post-production resources, which are implemented when they are necessary to enhance or give dynamism to a story.

4 Discussion

4.1 'Edugrammers' profile

Educational influencers have made great efforts to have a relevant space on Instagram, using visual narratives that have allowed them to gain followers (consolidated edugrammers) and others that are emerging but have great potential for growth. Along the same lines, the research by Bergs et al. (2023) mentions that educational influencers with a significant increase in the number of followers, led them to have difficulties in meeting the higher social expectations that this topic entailed. These users specialize in fields such as arts and humanities, engineering, industry and construction, education, social sciences, journalism and information. To a lesser extent, there are hard sciences such as physics, natural sciences, and mathematics. However, a study of educational influences carried out by Martínez-Domingo et al. (2024), identifies that the main topics addressed are health (55%), education (28%), environment (10%) and politics (7%), this is

somewhat opposed to the present research. These are channels operated mainly by teachers who disseminate educational knowledge through non-conventional media. This finding is consistent with the research by Herranz-de-la-Casa et al. (2019), which shows that teachers use these media to reach their target audience (students and citizens) and adapt to the new way of narrating content and the new digital communication channels. Meanwhile, in Latin America, research suggests the emergence of 'edugrammers' who become micro-influencers. The key is to specialize and make more effective use of the opportunities (affordances) offered by Instagram.

4.2 Use of copy

The study provides an interesting insight into the strategies used by 'edugrammers' on Instagram to interact with their audience and promote education through this platform. The use of questions as an engagement strategy breaks the linear dynamic and helps to activate the audience. This resource primarily aims to activate critical thinking. Other elements that are also used, but to a lesser extent, are debates and examples. According to Pinsker (2020), stories or reels have led to an increase in the number of users among individuals of the new generations. The "call to action" is a powerful resource. This guideline contrasts with the researched literature, which mentions that the "affordances" of Instagram for the microinfluence of educational practices are varied (Sabich and Steinberg, 2017; Scolari and Fraticelli, 2019), adding that it conjugates several formats and the simulation of dialog (Androutsopoulos, 2013), from the management of the copy, the moderation of comments, 'call to actions', the performance, the elaboration of questions and the sharing of resources (Carpenter et al., 2020). In line with this, Godoy Oliveros (2023) highlights that educational influencers on Instagram use content strategies that encourage audience interaction and engagement, including questions and calls to action, which coincides with the findings of this study.

Although previous studies have shown that the use of humor, especially through memes and audiovisual content, is prominent in educational Instagram accounts (Gil-Quintana and Vida de León, 2021). This research has findings that differ from the cited works. Specifically, in the research framework, this resource is not used in a predominant way by Latin American 'edugrammers'. Therefore, perhaps it would be necessary to study the role of humor in the classroom and it would be appropriate to seek strategies to incorporate it effectively.

The research highlights how the use of hashtags is strategically employed to distinguish educational material. The copy accompanying the posts appears to be carefully crafted to persuade the audience and capture their attention. Similarly, many *edugrammers* incorporate emoticons and supplementary information to make their content more engaging, relatable to the subject matter, and appealing to readers. According to González-Carrión et al. (2022), these innovative formats have led to the creation of new communicative and educational media, an aspect that has favored the development of digital, media and transmedia skills.

4.3 Discursive strategies

The specific strategies used by the 'edugrammers' in the study to effectively convey educational messages include, first and foremost, the use of questions (5 'edugrammers'). This technique is enriched,

among other things, by the inclusion of sound elements or exclamation marks, which make it possible to capture the user's attention from the beginning of the video. Undoubtedly, Latin American influencers make limited use of the discursive possibilities offered by Instagram. These are possibilities (affordances) that, according to some authors, are circumscribed in the enunciative-deliberative sphere (Sabich and Steinberg, 2017; Scolari and Fraticelli, 2019) and that allow the application of certain formats established in this network and promote a factual use of its functionalities through argumentative, emphatic and informative manifestations (Lee, 2023). Second, the information code that reinforces the 'call to action' is presented as an opportunity for audience enrichment, as influencers are willing to go into more detail. Third, the inclusion of emoticons is a strategy that is rarely used in the preparation of audiovisual content. In this sense, humor is an opportunity for influencers to exploit.

4.4 Personal projection

The issue of the image projected by 'edugrammers' on their social channels is fundamental in the context of education. Firstly, the connection with the audience is reflected in showing one's face (14 'edugrammers'). In other words, the profiles add a real element to the learning experience. This is undoubtedly in line with the concept of neotelling (De-Casas-Moreno et al., 2018; Openshaw, 2014), which involves the use of elements to enrich a narrative and create new ways of communicating, linked to new technologies that become extensions of the human body. Secondly, characterizations are not used in any of the videos. This limitation is perhaps justified because they still do not see them as essential to create content, or because they do not generate significant interaction with the audience and prefer to use communication techniques more linked to neotelling. Thirdly, transformations in APIs and algorithms have changed the order in which publications are viewed (Beltrán-Flandoli, 2023), as they prioritize those that adapt to the needs of users. In this sense, 'edugrammers' must adapt and make use of effective visual strategies, thus, ten of the 14 'edugrammers' studied show an informal image to their followers.

4.5 Deliberation

Influencers use deliberative communication and value the experience of experts. The latter is a key element in their pedagogical work. Moreover, it is a characteristic that is directly related to the theory, which mentions that communication and educational strategies are used by these profiles to achieve their goal and improve their online pedagogy (González-Carrión et al., 2022).

4.6 Visual

Regarding the audiovisual content of educational influencers, as described in the results, creators take advantage of the tools and techniques available on Instagram to enrich their pedagogical explanations, as proposed in their research by González-Carrión et al. (2022). The use of native formats is a reality, for example, with stories or reels. This feature contrasts with what Pinsker (2020) mentions, who points out that stories and reels have affordances in the educational context. They also use visual effects and cultural

expressions such as emoticons, stickers or gifs. All this is focused on the line of enriching the narrative proposed by Anzola-Gómez et al. (2022). They also use the green screen to contextualize information, immersion and dynamization of perceptions, as Nguyen (2023) and Stein et al. (2022) they pointed out at the time. Conclusions.

The research stands out for its focus on Latin American instagrammers who produce educational content. The study concludes that there is a clear growth trend, as these creators continue to attract more followers and establish themselves as influential figures in the educational sector. Moreover, their impact is notably greater in fields such as Arts and Humanities, Education, Engineering, and Social Sciences. This progression has positioned them as microinfluencers, underscoring the importance of specialization and maximizing the potential of Instagram's tools. Additionally, this study contributes to the understanding of the educational impact of edugrammers by revealing how their content fosters digital engagement, critical thinking, and informal learning processes among their audiences, particularly within Latin American contexts. This reinforces their potential as complementary actors in contemporary education ecosystems. The research questions have allowed us to know the characteristics of the edugrammers.

Q1: What identity elements define the community of educational influencers, or 'edugrammers', on Instagram in Latin America? These 'edugrammers' clearly focus on education and knowledge dissemination. Their identity centers on their skillful use of the platform to communicate content while creating a sense of connection with their audience. They actively engage by showing their faces, employing various tools, and using effective visual strategies. Indeed, the public image projected by edugrammers is crucial in establishing bonds with their audience.

Q2: What are the communicative characteristics of 'edugrammers' as 'microinfluencers' on Instagram? 'Edugrammers' use several key engagement strategies questions, calls to action, and emojis. They emphasize deliberative communication and frequently include expert contributions to enrich their educational content. These communicative traits help enhance their pedagogical efforts and foster greater interaction with their audience.

Q3: What features and resources of the platform do 'edugrammers' use to extend their educational work? 'Edugrammers' leverage a range of platform functionalities, including stories, reels, and visual effects, as well as cultural elements like emojis, stickers and gifs. The 'edugrammers' in this study demonstrate expertise in audiovisual production; their content is dynamic, incorporating varied shots and angles to create engaging, innovative videos. Additionally, they pay careful attention to format requirements and maintain high image resolution quality, optimizing their content for the platform's standards.

Regarding the categorization of the contents, the sections to which the content of the "edugrammers" was destined were previously defined based on a mixed approach, combining existing literature with detailed visual, computing and interpretive observation. The categorization was carried out based on two main axes: (1) the content, segmented according to areas of knowledge identified by UNESCO, and (2) the type of content according to the nature of the educational discourse observed. A qualitative approach was used, which included detailed visual inspection by the researchers, and an automated extraction procedure using algorithms that filter data by Instagram hashtags, such as #education or #edugrammer.

This study serves as an initial exploration of 'edugrammers' in Latin America. Future research could delve deeper into the role of collaboration between 'edugrammers' and other platform profiles to enhance the quality and diversity of educational content. This study, for instance, found only one case of collaboration with experts. Promoting further work and research to consolidate these platforms, their content, and the deliberative dynamics they foster would be valuable, especially through a cross-cutting approach grounded in media literacy.

4.7 Limitations and future research

This study adopts an exploratory and descriptive approach to the practices of Latin American *edugrammers*, using a combination of digital ethnography, content analysis, and algorithmic extraction. While this mixed-methods design strengthens the analysis, some methodological limitations should be considered.

First, although efforts were made to reduce algorithmic bias—such as using a dedicated research account and alternating immersion sessions—Instagram's recommendation system may have influenced the visibility of profiles, potentially underrepresenting less prominent or emerging educators. Second, while the sample includes diverse countries and academic fields, some sectors (e.g., natural sciences, vocational education) are less visible, which future studies may address through more targeted or stratified sampling. Third, qualitative coding involves interpretive judgment, and although supported by literature-based matrices, subjectivity cannot be entirely ruled out. Finally, limitations inherent to Instagram's platform—such as API restrictions and evolving metrics—may affect data completeness and comparability over time.

Building on this initial exploration, future research could benefit from: comparative studies across platforms such as TikTok, YouTube, or Threads; deeper analysis of emotional and aesthetic strategies—including humor and visual branding—in educational engagement; examinations of collaborative dynamics between *edugrammers* and formal institutions; and longitudinal approaches to how Instagram's affordances shape pedagogical practices over time.

By acknowledging these limitations and suggesting new lines of inquiry, we aim to foster a more rigorous and reflective understanding of educational influence in digital environments.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Author contributions

AB-F: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing. DR-R: Formal analysis, Resources, Supervision, Validation, Writing – original draft, Writing – review & editing. RC-T: Conceptualization, Formal analysis, Investigation, Resources, Writing – original draft,

Writing – review & editing. ST: Methodology, Formal analysis, Validation, Visualization, Writing – review & editing.

Funding

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

The authors declare that no Gen AI was used in the creation of this manuscript.

Publisher's note

References

Abidin, C. (2016). Visibility labour: engaging with influencers fashion brands and #OOTD advertorial campaigns on Instagram. *Media International Australia* 161, 86–100. doi: 10.1177/1329878X16665177

Abidin, C. (2018). Internet celebrity: understanding fame online. Bingley: Emerald Group Publishing.

Agulleiro-Prats, A., Miquel-Segarra, S., Garcia-Medina, I., and González-Romo, Z.-F. (2020). Aproximación al perfil no profesional del micro instagramer de moda en España. *Profesional de La Información* 29, 1–13. doi: 10.3145/epi.2020.jul.39

Androutsopoulos, J. (2013). "Participatory culture and metalinguistic discourse: performing and negotiating German dialects on you tube" in Discourse 2.0: Language and new media. eds. D. Tannen and A. M. Trester (Washington, DC: Georgetown University Press), 47–71.

Anzola-Gómez, J., Rivera-Rogel, R., and Aguaded, I. (2022). Interacción social e interacción discursiva de un canal de YouTube educativo. *Fonseca, Journal of Communication*, 25, 115–132. doi: 10.14201/fjc.29406

Arévalo Iglesias, L., López, M., and de Castro, R. (2021). Instagram como dispositivo de normalización de representaciones identitarias desobedientes. Estudio de caso. *Vivat Academia. Revista De Comunicación* 154, 47–62. doi: 10.15178/va.2021.154.e1363

Beltrán-Flandoli, A. M. (2023). Empoderamiento mediático en la era de los 'produsers' [PhD' thesis]. Spain: Universidad de Huelva.

Bergs, Y., Peters, P., Lub, X. D., and Blomme, R. J. (2023). Online identity work dynamics of Instagram micro-influencers: an extreme case approach. *Front. Psychol.* 14:1306248. doi: 10.3389/fpsyg.2023.1306248

Bossio, D. (2021). Journalists on Instagram: presenting professional identity and role on image-focused social media. *Journal. Pract.* 17, 1773–1789. doi: 10.1080/17512786.2021.2001359

Cantón-Correa, F. J., and Alberich-Pascual, J. (2019). Construcción social de la imagen de una ciudad a través de Instagram: el caso de Granada. *Profesional De La Información* 28, 1–12. doi: 10.3145/epi.2019.ene.08

Carpenter, J. P., Morrison, S. A., Craft, M., and Lee, M. (2020). How and why are educators using Instagram? *Teach. Teach. Educ.* 96:103149. doi: 10.1016/j.tate.2020.103149

Carpenter, J., Shelton, C., and Schroeder, S. (2022). The education influencer: a new player in the educator professional landscape. *J. Res. Technol. Educ.* 55, 749–764. doi: 10.1080/15391523.2022.2030267

Chintalapati, N., and Daruri, V. S. K. (2017). Examining the use of YouTube as a learning resource in higher education: scale development and validation of TAM model. *Telematics Inform.* 34, 853–860. doi: 10.1016/j.tele.2016.08.008

Córdova-Tapia, R., Celly-Alvarado, S., and Rivera-Rogel, D. (2022a). "Edutubers ecuatorianos: impacto y mejoras en los contenidos de aprendizaje" in Metodologías activas con TIC en la educación del siglo XXI. eds. O. Buzón García and C. Romero García, vol. 32. 1st ed, 1036–1055. Dykinson S.L

Córdova-Tapia, R., Forteza-Martínez, A., and Rivera-Rogel, D. (2022b). 'Edutubers'. Estudio comparativo de la Comunidad Andina y España. *Index Comunicación* 12, 29–53. doi: 10.33732/ixc/12/02Edutub

Córdova-Tapia, R., and Rivera-Rogel, D. (2020). Una mirada a los Youtubers de la Comunidad Andina. *Revista Ibérica de Sistemas e Tecnologias de Informação* 35, 377–389.

Córdova-Tapia, R., Rivera-Rogel, D., Loaiza Lima, E., and Velásquez-Benavides, A. (2022c). "YouTuber and Instagrammer phenomenon in the Andean community" in Communication and Smart Technologies. ICOMTA 2021. Smart Innovation, Systems

and Technologies. eds. Á. Rocha, D. Barredo, P. C. López-López and I. Puentes-Rivera, vol. *259* (Singapore: Springer).

De-Casas-Moreno, P., Tejedor-Calvo, S., and Romero-Rodríguez, L. (2018). Micronarrativas en Instagram: análisis del storytelling autobiográfico y de la proyección de identidades de los universitarios del ámbito de la comunicación. *Revista Prisma Social* 20, 40–57.

Diez-Cordero, A., and Cabrera-Berrezueta, L. (2021). La educación virtual en tiempos de la pandemia COVID-19: Un reto docente. *Cienciamatria* 7, 4–26. doi: 10.35381/cm.v7i13.469

Doval-Fernández, T., and Sánchez-Amboage, E. (2021). Instagram como herramienta de marketing de destinos: funcionalidades y utilidades. *Razón y Palabra* 25. doi: 10.26807/rp.v25i111.1786

Enke, N., and Borchers, N. (2019). Social media influencers in strategic communication: a conceptual framework for strategic social media influencer communication. *Int. J. Strateg. Commun.* 13, 261–277. doi: 10.1080/1553118X.2019.1620234

Estalella, A., and Ardevol, E. (2011). E-research: Challenges and opportunities for social sciences, (eds.) C. Domínguez Figaredo, J. A. Campos González and J. Gutiérrez Pérez. La construcción de la investigación en torno a lo virtual (pp. 87–111). Octaedro.

Fernández, R. (2021). Distribución por edad de los usuarios mundiales de Instagram en. Available online at:. https://bit.ly/2Pz72iP

Fromm, J., and Read, A. (2018). Marketing to gen Z: the rules for reaching this vast—and very different—generation of influencers. AMACOM. Available online at: https://www.harpercollinsleadership.com/9780814439289/marketing-to-gen-z/

Gibson, J. J. (2015). The ecological approach to visual perception. New York: Psychology Press.

Gil-Quintana, J., and Vida de León, E. (2021). Educational influencers on Instagram: analysis of educational channels, audiences, and economic performance. *Publications* 9, 9:43. doi: 10.3390/publications9040043

Godoy Oliveros, A. (2023). El contenido de los mensajes de los influencers educativos en Instagram. *EDUCA. Revista Internacional para la Calidad Educativa* 4, 17–35. doi: 10.55040/educa.v4i1.81

Goffman, E. (1959). *The presentation of self in everyday life*. Bantam Doubleday Dell Publishing Group.

González-Carrión, E., Forteza-Martínez, A., and Córdova-Tapia, R. (2022). "YouTubers educativos: el conocimiento 2.0" in Metodologías activas con TIC en la educación del siglo XXI. eds. O. Buzón García and C. Romero García, vol. *32. 1st* ed (Dykinson S.L), 1018–1035.

Goodrich, K., Schiller, S. Z., and Galletta, D. (2015). Consumer reactions to intrusiveness of online-video advertisements: do length, informativeness, and humor help (or hinder) marketing outcomes? *J. Advert. Res.* 55, 37–50. doi: 10.2501/JAR-55-1-037-050

Herranz-de-la-Casa, J. M., Caerols-Mateo, R., and Sidorenko-Bautista, P. (2019). La realidad virtual y el vídeo 360° en la comunicación empresarial e institucional. *Revista de Comunicación* 18, 177–199. doi: 10.26441/RC18.2-2019-A9

Hurley, Z. (2019). Imagined affordances of Instagram and the fantastical authenticity of female gulf-Arab social media influencers. *Social Media Soc.* 5, 1–16. doi: 10.1177/2056305118819241

IAB (2019). Estudio anual de redes sociales. Available online at: https://bit.ly/2R4t9M4

IndaHash (2020). The new normal: How social media will change in 2020? Available online at: https://bit.ly/3cHnLYE

Instagram. (2018). Instagram Developer Documentation. Available online at: https://www.instagram.com/developer

Izquierdo-Iranzo, P., and Gallardo-Echenique, E. (2020). Studygrammers: learning influencers. *Comunicar* 28, 115–125. doi: 10.3916/c62-2020-10

Jaakkola, M. (2019). From re-viewers to me-viewers: The #Bookstagram review sphere on Instagram and the uses of the perceived platform and genre affordances. *Interactions: Studies in Communication & Culture.* 10, 91–110. doi: 10.1386/iscc.10.1-2.91_1

Jaramillo-Dent, D., Vizcaíno-Verdú, A., and Perez-Rodríguez, A. (2022). "Teaching challenges: teachers on YouTube, Instagram and Tik Tok" in INTED2022 proceedings. eds. L. Gomez-Chova, A. Lopez-Martínez and I. Candel-Torres (IATED), 4714–e4722.

Juanes Giraud, B. Y., Munévar Mesa, O. R., and Cándelo Blandón, H. (2020). La virtualidad en la educación. Aspectos claves para la continuidad de la enseñanza en tiempos de pandemia. *Revista Conrado* 16, 448–452.

Kuehn, K. M. (2021). Instagram: visual social media cultures. *Communication Research Practice* 7, 202–204. doi: 10.1080/22041451.2021.1927563

Leaver, T., Highfield, T., and Abidin, C. (2020). Instagram: Visual Social Media Cultures: Polity Press.

Lee, Y.-J. (2023). Language learning affordances of Instagram and TikTok. *Innov. Lang. Learn. Teach.* 17, 408–423. doi: 10.1080/17501229.2022.2051517

Leonardi, P., and Vaast, E. (2017). Social media and their affordances for organizing: a review and agenda for research. *Annals* 11, 150–188. doi: 10.5465/annals.2015.0144

Light, B., Burgess, J., and Duguay, S. (2018). The walkthrough method: an approach to the study of apps. *New Media Soc.* 20, 881–900. doi: 10.1177/1461444816675438

Maares, P., Banjac, S., and Hanusch, F. (2021). The labour of visual authenticity on social media: exploring producers' and audiences' perceptions on Instagram. *Poetics* 84:101502. doi: 10.1016/j.poetic.2020.101502

Manovich, L. (2020). Instagram y la Imagen Contemporánea: Universidad Autónoma Metropolitana Unidad Cuajimalpa.

Martínez-Domingo, J.-A., Romero-Rodríguez, J.-M., Fuentes-Cabrera, A., and Aznar-Díaz, I. (2024). Los «influencers» y su papel en la educación: una revisión sistemática. *Educar* 60, 377–395. doi: 10.5565/rev/educar.1957

Martínez-Rolán, C., Tymoshchuka, O., Piñero-Otero, T., and Renó, D. (2019). Instagram como red de promoción e hipermediación del turismo rural: el caso de Aldeidas Históricas. *Rev. Lat. Comun. Soc.* 74, 1610–1632. doi: 10.4185/RLCS-2019-1401

NeoReach. (2019). Influencer marketing benchmark report 2019. Available online at: https://neoreach.com/influencer-marketing-benchmark-report-2019/

Nguyen, H. (2023). "TikTok as learning analytics data: framing climate change and data practices" in LAK23: 13th international learning analytics and knowledge conference. (pp. 273–279). Association for Computing Machinery. doi: 10.1145/3576050.3576055

Openshaw, J. (2014). The socially savvy advisor. New York: John Wiley & Sons, Inc.

Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO). (1997). Áreas del conocimiento. UNESCO.

Owens, M. T., Seidel, S. B., Wong, M., Bejines, T. E., Lietz, S., Perez, J. R., et al. (2017). Classifying instructional practices in introductory biology courses: a comparison of faculty self-report with classroom observations and audio recordings. *Proc. Natl. Acad. Sci.* 114, 3085–3090. doi: 10.1073/pnas.1618693114

Pereira Pérez, Z. (2011). Los diseños de método mixto en la investigación en educación: Una experiencia concreta. *Rev. Electrónica Educ.* 15, 15–29. [Google Scholar] [CrossRef] [Green Version]. doi: 10.15359/ree.15-1.2

Pérez Curiel, C., and Clavijo Ferreira, L. (2017). Comunicación y Social Media en las Empresas de Moda. *Revista Prisma Social* 18, 226–258. Recuperado a partir de https://revistaprismasocial.es/article/view/1440

Perifanou, M., Tzafilkou, K., and Economides, A. A. (2021). The role of Instagram, Facebook, and YouTube frequency of use in university students' digital skills components. *Educ. Sci.* 11. doi: 10.3390/educsci11120766

Pinsker, J. (2020). Oh no, they've come up with another generation label. The Atlantic. Available online at: https://bit.ly/38qPR9R

Priporas, C.-V., Stylos, N., and Kamenidou, I. (2020). City image, city brand personality and ge-neration Z residents' life satisfaction under economic crisis: predictors of city-related social media engagement. *J. Bus. Res.* 119, 453–463. doi: 10.1016/j.jbusres.2019.05.019

Reza Flores, R. A., Reza Flores, C. M., Zamudio Palomar, A., Peña Vera, E., and Martínez Granados, J. G. (2023). Historias de Instagram, un instrumento para la divulgación de contenido educativo e investigativo: Instagram stories as a tool for educational and investigative content. *Revista Latinoamericana De Ciencias Sociales Y Humanidades* 4, 3010–3025. doi: 10.56712/latam.v4i1.469

Rivera-Rogel, D., and Córdova-Tapia, R. (2021). Instagrammers más influyentes de la Comunidad Andina. *Revista Ibérica de Sistemas e Tecnologias de Informação* E40, 205–217.

Rivera-Rogel, D., Rodríguez-Hidalgo, C., Beltrán-Flandoli, A., and Córdova-Tapia, R. (2022). Narrative of young Youtubers from the Andean community and their media competence. *Media Commun.* 10, 272–285. doi: 10.17645/mac.v10i1.4771

Rodríguez, E., and Ballesteros, J. C. (2019). I Informe Jóvenes y Género. La (in) consciencia de equidad de la población joven en España. Madrid: Centro Reina Sofía sobre Adolescencia y Juventud, Fad.

Sabich, M., and Steinberg, L. (2017). Discursividad Youtuber: Afecto, narrativas, y estrategias de socialización en comunidades de internet. [Youtuber discursivity: affect, narratives, and socialization strategies in internet communities]. Revista Mediterránea de. *Comunicación* 8, 171–188. doi: 10.14198/MEDCOM2017.8.2.12

Sánchez Gómez, J., Quiroga Barrios, K., and Ospina Díaz, P. (2020). Desafíos tecnológicos para el sector educativo de América Latina en tiempos de pandemia. Programa de Investigación de Política Exterior Colombiana (PIPEC).

Sarmiento-Guede, J. R., and Rodríguez-Terceño, J. (2020). La comunicación visual en Instagram: estudio de los efectos de los micro-influencers en el comportamiento de sus seguidores. *Estudios sobre el Mensaje Periodístico* 26, 1205–1216. doi: 10.5209/esmp.65046

Schroeder, S., and Shelton, C. y Curcio, R. (2021). Creating the consumer teacher: Edu-influencers and the figured world of K-12 teaching. En American Educational Research Association Annual Meeting, Virtual Conference.

Scolari, C. A., and Fraticelli, D. (2019). The case of the top Spanish Youtubers: emerging media subjects and discourse practices in the new media ecology. *Convergence* 25, 496–515. doi: 10.1177/1354856517721807

Secilla Garrido, M. (2021). Edugramers y Edutubers ¿Produzco, luego enseño? Análisis de cuentas educativas en Instagram y Youtube. [Master' thesis]: Universidad Internacional de Andalucía.

Shelton, C., Schroeder, S., and Curcio, R. (2020). Instagramming their hearts out: what do Edu-influencers share on Instagram? *Contemp. Issues Technology Teacher Educ.* 20, 529–554. Available at: https://www.learntechlib.org/primary/p/215623/

Sidorenko-Bautista, P., Cabezuelo-Lorenzo, F., and Herránz-de-la-Casa, J. M. (2021). Instagram como herramienta digital para la comunicación y divulgación científica: el caso mexicano de @pictoline. *Chasqui. Revista Latinoamericana de Comunicación* 1, 143–162. doi: 10.16921/chasqui.v1i147.4472

Statista. (2024). Distribution of Instagram users worldwide as of April 2024, by age group. We Are Social; Instagram; DataReportal; Meta Platforms; Meltwater. Available online at: https://www.statista.com/statistics/325587/instagram-global-age-group/

Stein, K., Yao, Y., and Aitamurto, T. (2022). Examining communicative forms in #TikTokDocs' sexual health videos. *Int. J. Commun.* 16, 1309–1331. Available at: https://ijoc.org/index.php/ijoc/article/view/18175/3702

Tarullo, R., and Sampietro, A. (2022). "No es tu cuerpo. No es tu derecho". El argumento visual del movimiento provida argentino en Instagram. *Revista de Comunicación* 21, 411–431. doi: 10.26441/10.26441/rc21.1-2022-a21

Taylor, P., and Keeter, S. (2010). Millennials: A portrait of generation next. Confident. Connected. Open to chan-ge. Washington, DC: Pew Research Center.

Tejedor, S., Cervi, L., Robledo-Dioses, K., and Pulido Rodríguez, C. (2022). Desafíos del uso de TikTok como plataforma educativa: Una red multitemática donde el humor supera al debate. *Aula Abierta* 51, 121–128. doi: 10.17811/rifie.51.2.2022.121-128

Turkle, S. (2012). Alone together: Why we expect more from technology and less from each other: Basic Books.

Turner, A. (2015). "Generation Z: technology and social interest". *J. Individ. Psychol.* 71, 103–113. doi: 10.1353/jip.2015.0021

Van Rossum, G. (2007). Python programming language. *USENIX Annual Technical Conference* 46:36.

We Are Social & Meltwater. (2023). Digital 2023 global overview report. Available online at: https://n9.cl/4n1ti