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SUMARIO / SUMMARY / RESUMO

Editorial

The communicative environment, characterized by constant changes and technological advances, requires citizens to develop the necessary media competence to function effectively in the digital era. In this way, traditional media coexist with emerging media, such as social networks, streaming platforms or the increasingly widespread artificial intelligence. These advances have a significant influence in different areas of daily life, modifying habits, attitudes and ways of acting in society in social, professional, educational and cultural environments. It is in this context that this new issue of MLS Communication Journal is published, which, with a new Editorial Team, resumes the activity of the publication, with proposals related to communication from different perspectives and approaches.

In this sense, the first manuscript, developed by Laura Chiva Cedrún (Universidad Europea del Atlántico) and Sabina Civila (Universidad de Huelva), entitled "The influence of TikTok in the construction of identity and socialization of young people", addresses the effects of this platform with respect to the possible impact of social networks on interpersonal dynamics, self-perception and identity constructions of young people in virtual environments. The results show that more than 50% of the participants assimilate values and tend to change their perspective based on the content they consume on the platform, which implies the influence of this social network in defining themselves, comparing themselves with other users and seeking recognition.

The second article, "Relationship engagement and academic attrition in MOOCs: Síntesis de una investigación expo facto", proposed by Odiel Estrada Molina (University of Valladolid), proposes a study through a systematic literature review and a survey in which university professors from two countries (Cuba and Ecuador) participated. The findings show that variables related to autonomy and learning planning, among other issues, influence student attrition when taking this type of massive online courses. This study reflects on how these phenomena may affect learning and academic performance in virtual environments.

The current issue continues with research by Francisco Antonio Gallo Infantes (Universidad Internacional Iberoamericana), Jon Arambarri Basañez, Nuria Lloret Romero (Universidad Europea del Atlántico) and Claudet Cadillo López (Universidad Científica de Perú). In their publication, entitled "Modelo de comunicación efectiva para la difusión de los programas y proyectos de inversión pública del departamento de Loreto, Perú," they surveyed lieutenant governors of towns located on the borders with Colombia and Brazil. The results show significant limitations in the current model of dissemination of Research and Public Investment Programs in relation to all the communicative elements (dispersed and insufficiently trained senders, undefined receivers, wasted channels, decontextualized messages and lack of feedback), which implies the proposal by the authors of an Effective Communication Model for Dissemination.

In the following manuscript, "Comparative study of free and open source software for video editing" signed by Manuel Scarani Delgado (Universidad Internacional Iberoamericana), a comparative study is presented through an analysis of several programs: Shotcut, Kdenlive, Hitfilm Express and Da Vinci Resolve. The results show that there is parity in the features, functionalities and benefits offered by free and open source software. In this sense, they are established

as a feasible and effective alternative for the production of contents in the communicative field.

Finally, the last article that completes the issue, authored by Laura Pacheco-Jiménez (University of Seville), offers an interesting reflection on the representation of mothers in audiovisual productions. Specifically, under the title "Sacred? family: The desacralization of motherhood in the Netflix series", an analysis of the seven female characters in "Sagrada familia", a Spanish series starring Najwa Nimri, Alba Flores, Macarena Gómez, Carla Campra, Laura Laprida, Ella Kweku and Claudia Melo is presented. It premiered on said platform in October 2022 and concluded with the premiere of the second and final season in November 2023. The objective of the study is to determine the types of motherhood exercised by their characters, how they develop protection towards their children, as well as to identify which aspects influence their work and professional development. The findings show that this series establishes itself in the paradigm of progressive departure from the representation of female characters as perfect women and ideal mothers, offering a greater diversity of maternal profiles characterized by conflicts and contradictory actions that reflect the construction of complex characters.

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Dra. Mónica Bonilla del Río
Editora Jefe / Editor in chief / Editora Chefe

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THE INFLUENCE OF TIKTOK USE ON YOUNG PEOPLE'S IDENTITY FORMATION AND VIRTUAL SOCIALISATION
LA INFLUENCIA DE TIKTOK EN LA CONSTRUCCIÓN DE LA IDENTIDAD Y SOCIALIZACIÓN DE LOS JÓVENES

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	ABSTRACT
Key words: Tiktok, identity, teenagers, social media, Turkey.	In contemporary society, the influence of social media on young people, along with its impact on interpersonal dynamics and self-perception, is classified as a pervasive phenomenon that not only shapes everyday interactions, but also significantly shapes the construction identity and virtual socialization patterns. In particular, TikTok has become a prominent platform for the younger population. Taking this into account, the present research focuses on the effects of TikTok on the identity construction and virtual socialization of students between 18 and 26 years old enrolled at the University of Ankara. To empirically address these objectives, a total of 30 students from Ankara University actively participated in this research by completing a questionnaire based on the object of study. This instrument was designed with the purpose of describing the case study and the resulting dynamics in identity formation, virtual socialization, and the perception of popularity by the sample. The findings obtained provide a concrete insight into the digital landscape among students at the University of Ankara. Consequently, this study not only sheds light on the complexities of digital identity formation but also emphasizes the intricate network of interactions that influence the social experiences of young individuals in these environments.
	RESUMEN
Palabras clave: TikTok, identidad, adolescentes, redes sociales, Turquía.	En la sociedad contemporánea, la influencia de las redes sociales en los jóvenes, junto con su impacto en la dinámica interpersonal y la autopercepción, se clasifica como un fenómeno omnipresente que no solo configura las interacciones cotidianas, sino que también

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modela de manera significativa la construcción identitaria y los patrones de socialización virtual. En particular, TikTok se ha convertido en una plataforma destacada para la población más joven. Teniendo esto en cuenta, la presente investigación se centra en los efectos de TikTok en la construcción de identidad y socialización virtual de estudiantes de entre 18 y 26 años matriculados en la Universidad de Ankara. Para abordar empíricamente estos objetivos, un total de 30 estudiantes de la Universidad de Ankara participó activamente en esta investigación completando un cuestionario basado en el objeto de estudio. Este instrumento fue diseñado con el propósito de describir el estudio de caso y las dinámicas resultantes en la formación de identidad, la socialización virtual y la percepción de la popularidad por parte de la muestra. Los hallazgos obtenidos ofrecen una visión concreta sobre el panorama digital entre los estudiantes de la Universidad de Ankara. Como resultado, este estudio no solo arroja luz sobre las posibles complejidades de la formación de la identidad digital, sino que también subraya la intrincada red de interacciones que influyen en las experiencias sociales de los jóvenes en estos entornos.

Introduction

The use of social networks has not stopped growing for more than twenty years (Mendoza et al., 2015), having a great impact on society and its daily life. To the point of presenting a duality between what people are inside and outside social networks. Therefore, modifying beliefs, what is given relevance, and even the way we perceive ourselves and interpersonal relationships we establish (Gómez et al., 2022). A clear example of the impact of social networks on our daily lives is confinement due to the COVID-19 pandemic. Due to this situation, academic, social or leisure activities were affected and therefore changed (Cuadros & Torra, 2022). Because of isolation, social network consumption has increased (Cívico et al., 2021).

In this research, we consider social networks as defined by Lozares (1996, p. 108) a well-defined set of actors, whether individuals, groups, organisations, communities, global societies, etc., linked through relationships. In other words, social networks are a set of platforms that provide communication, interaction, and content creation services through the Internet in a way that is accessible to anyone (Gómez et al., 2022).

The social network that will be the subject of this study is TikTok as it has had a significant growth, especially since the pandemic, and now has millions of downloads on Play Store and App Store. The aim of TikTok is to create videos of up to three minutes that are repeated in a loop, similar to other applications such as Snapchat or Vine. They can also record and share selfie-videos of themselves or other people with background music. It also allows you to edit videos before making them public, as this social network stands out for the variety of filters it offers. In TikTok there is a chat function to interact with other users and a browsing function to find the most viral videos of the moment (Cuadros & Torra, 2022). This draws attention to the social influence of young people as 85% of TikTok subscribers are between 13-24 years old (Avilés & Peralta, 2020).

When you go to TikTok, you will find two main pages: the "For you" page and the "Following" page. On the "For you" page, you can see the TikToks that have been selected by an algorithm and according to the interests of each user (Cuadros & Torra, 2022). On the following page, you can only see TikToks from people you follow, unlike the "For you" page, where you can see videos created by people you do not follow. In TikTok, thanks to the algorithm, content goes viral much more easily than on other platforms such as Instagram (Cuadros & Torra, 2022).

Regarding the algorithms used by TikTok, this application is characterised by having the most advanced algorithm system, namely in terms of engagement, interaction types and content (Zhang et al., 2019; Iram & Aggarwal, 2020). These algorithms contribute to making this application more addictive compared to other social networks. The term social media addiction refers to a behaviour that is characterised by an uncontrollable and insatiable desire to be constantly online, neglecting other areas of one's personal life (Brailovskaia et al., 2020). This type of addiction is more difficult to treat due to its nature, i.e. it is intangible. That is, social networks resort to algorithms to make users stay longer on it, exploiting the desire for social recognition and providing intermittent reinforcement to stimulate compulsive behaviour (Chien et al., 2023). In the case of TikTok, other risk factors for addictive use include that the audience is young, low income and low education (Huang et al., 2022). Researchers on this topic consider that it cannot be treated as an addiction unless five to seven hours a day are reached, which would be harmful and could affect mental health (Pato, 2023).

Experts generally acknowledge that there is a closed-loop relationship between TikTok addiction and algorithm optimisation (Zhao, 2021). This materialises in that users

seem to be trapped in an entertainment spiral (Quin et al., 2022). Some studies on social network addiction suggest that there are certain external factors that cause this behaviour, for example technical factors (Hasan et al., 2018). Furthermore, other studies suggest the influence of internal factors such as the experience of flow on addictive behaviour. This refers to the internal feeling of enjoyment, time distortion and concentration (Zhao & Zhou, 2021).

As for the users, this social network is mostly used by teenagers who share their experiences, feelings, or thoughts with which more than one person can identify (Cuadros & Torra, 2022). Therefore, many teenagers are influenced by this type of virtual media when forming opinions on themselves and others (Navarrete et al., 2017).

As a result, the need arises to investigate the influence that TikTok has on the construction of identity in teenagers, which is more noticeable in high school and especially during university since young people are more exposed to a variety of factors that can change lifestyles and beliefs (Gómez et al., 2022). In this context, social networks, specifically TikTok, play an important role as they are considered the tools most used by teenagers to communicate ideas between groups or individually (Fuertes & Armas, 2018; Mendoza et al., 2015).

Teenage period is defined in science and psychology as "the developmental transformation between childhood and adulthood that brings about significant physical, cognitive and psychosocial changes in the individual" (Papalia et al., 2009, p. 461). This involves changes in different spheres of life that will influence their further development and identity formation.

Adolescence begins and ends differently for each individual and is later for males. This period is considered a transitional stage because there is an evolution in physical appearance, emotional, social and intellectual status. But the individual will continue to experience some evolution throughout life (Cuadros & Torra, 2022).

Sandoval (2018), on the one hand, states that it is a period of great enthusiasm, vitality, desire for autonomy, independence from the family environment and the desire to find opportunities in the world. But on the other hand, he also states that it is a stage in which the individual presents conflict with the body, emotional instability related to the search for their identity, the desire to stop being a child and to grow up and be recognised as such, and an unsatisfied need to make their own decisions.

Papalia and Martorell (2017) state that with regard to physical development, the change is notorious, puberty begins, and the main risks revolve around behavioural problems such as eating disorders or drug addiction. Regarding cognitive development, there is a development of scientific reasoning and abstract thinking, sometimes maturity in decision-making and in some behaviours. Finally, in psychosocial development, the search for identity and the positive and negative influence of the social group to which they belong can be observed (Cuadros & Torra, 2022).

For the purposes of this research, we take as a basis the conceptions of Marcia (1966), who elaborated Erikson's proposal and argued that during adolescence there is no conclusion or confusion of identity but rather the individual explores and engages with identity in various areas of life such as career, politics, friendships or social roles.

Thus, during teenage, an identity crisis occurs as they begin to question childhood patterns and take on new roles. Consequently, their attachment to their parents fades and in contrast, they begin to develop closer relationships with adolescents with similar characteristics in search of acceptance (Cuadros & Torra, 2022). At this stage, group and self-loyalty is essential because when they do not form a clear identity, they lose loyalty and can be easily rejected by the group (Robles, 2008).

The quest to establish that identity can be traced back to adolescents' efforts to define and redefine themselves, as well as recognition by others and comparison with themselves as discussed by Erickson (1968). This is key during this time and in early adulthood as self-recognition will provide them with the security to form their own identity and comparison with others can lead to them changing aspects of their identity. In addition, Sandoval (2018) states that at this stage the opinion of the environment is very relevant, and it is also very important what adolescents think of themselves, how they are perceived and how they feel that they are the focus of attention (Sandoval, 2018).

Marcia (1980) proposes another very interesting perception of identity through his theory of the four stages or levels of identity: the first level is the diffusion of identity, they have not yet experienced identity crises and there are no concrete beliefs adopted. Later, when they start to commit to beliefs or goals, they move to the second level, which is strongly determined by social influence. When they go through an identity crisis or moratorium they would be at the third level. Finally, the fourth level occurs once the identity is already defined (Cuadros & Torra, 2022).

Identity according to Marwick (2013) is all the characteristics that we construct socially in our interactions with those in our lives. Identity encompasses the following aspects: subjectivity (how we see ourselves); self-representation (how we present ourselves to others) and representation (the way in which the different aspects of social identity and media are manifested) (Cuadros & Torra, 2022). Thus, social networks occupy an important space as they are presented as a space for engagement and relationship building where young people socialise and interact with others (Zapatero, et al., 2009).

Marcia (1993) distinguishes four identity states marked by the presence or absence of crisis and commitment. By crisis she refers to the period of making conscious choices in relation to identity construction. These four spheres are as follows:

1. Identity achievement (crisis leads to commitment): a crisis occurs and then a series of decisions are made to which the individual commits, in this period alternatives are explored. The individual is able to identify with the values he or she has chosen after learning about the different possibilities available to him or her. This sphere is the ideal culmination of the process of personal identification (Cuadros & Torra, 2022).

2. Moratorium (crisis without commitment): in this state a process of exploration is experienced but commitments are vague or absent. They work towards commitment, but the struggle to realise their identity is contradictory. They alternate between rebellion and submission (Cuadros & Torra, 2022).

3. Exclusion (crisis-free commitment): in this case the person accepts the ideological positions of his or her guardian since he or she does not engage in choosing between the various alternatives offered by life but commits to the project that another person established for his or her life. Thus, identity is adopted through the assimilation of other people's norms, values and ideologies (Cuadros & Torra, 2022).

4. Identity diffusion (no commitment or crisis): in this case the individual experiences little or no identity crisis and no commitment (Cuadros & Torra, 2022).

Thanks to the above mentioned in relation to identity, we can determine that it is the main factor between two essential actions for the psychic balance of any human being. The first one is related to giving a positive self-image and the second one is related to adapting to the environment in which the person lives (Velasco, 2002, p. 4). Regarding the second, due to the Internet, the social environment has moved to the virtual environment, which is accessible to all, and which also allows for the creation of an identity through its

online tools. Therefore, it allows adolescents to show what they have learned and makes them creative and free to express what they want (Gómez et al., 2022).

The fact that the social environment has moved to the virtual environment has meant that the search for and creation of identity has also moved to the virtual spectrum. This concept of virtual identity in social networks refers to the way in which users establish similarities according to certain trends brought about by the virtual environment. This allows them to publish, modify or delete the information presented about them through the virtual identity that social networks offer (Rojas, 2020).

Likewise, Tuğtekin and Dursun (2020) state that virtual identities in social networks are the most powerful technological tools in the digital age we live in.

In the realm of contemporary digital communication, the construction of identity takes on a multifaceted and intricate nature. The rapid proliferation of platforms like TikTok, Instagram, Snapchat, and others has significantly reshaped the way individuals perceive themselves and are perceived by others. Eftimie's (2019) observations about the relevance of virtual communication in understanding identity in the last century still hold true today, with even more pronounced implications.

The phenomenon of virtual communication, particularly on platforms like TikTok, is emblematic of the contemporary era's complex relationship between identity formation and digital media. The continuous sharing of user-generated content, often characterized by short video clips on TikTok, not only reflects an individual's self-presentation but also serves as a medium for engaging with and shaping one's identity within a larger social context. Galindo (2019) highlights the role of platforms like TikTok in fostering new cultures and socialization among teenagers. These platforms are instrumental in shaping their self-identities, as they strive for popularity and recognition among their peers. This phenomenon underscores the dynamic nature of identity construction in a digital age.

The influence of these digital environments on the development of individuals' virtual identities and their impact on real-world social dynamics are topics of growing interest (Tuğtekin & Dursun, 2020).

In this context, it is vital for scholars and society at large to comprehend the dynamics and potential risks associated with TikTok and identity construction, especially among young people who are at a stage of life where identity exploration is paramount. The digital landscape offers both opportunities for self-expression and the potential for identity manipulation, demanding a nuanced approach in research and education to navigate this ever-evolving terrain effectively.

Method

Objectives

The primary aim of this research is to analyze the utilization of the social network TikTok and its impact on the construction of identity and virtual socialization among students aged 18-26 at Ankara University. To achieve this, a quantitative approach has been employed, following the sequential and evidential processes outlined by Hernández (2014).

Procedure

This study adopts a cross-sectional design, employing the chosen variables at a specific moment in time. The scope of the research is descriptive, which consists of describing phenomena, situations, contexts, and events. Thus, this research aims to

delineate the properties, characteristics, and profiles of individuals in the specified age group (Hernández-Sampieri et al., 2010, p.80). Therefore, it is only intended to measure or collect information on the variables that are the object of study (Hernández-Sampieri et al., 2010, p.80).

Participants

The target population comprises students aged 18-26 years old at Ankara University. The sample consists of 30 participants who were selected through convenience sampling, which implies that the sample is non-probabilistic and therefore the data is not generalisable to the rest of the population. Exclusion criteria were applied to exclude those under the age of 18 or older than 26, non-users of TikTok and those not enrolled at Ankara University. Inclusion criteria encompassed students belonging to Ankara University, between the aforementioned age ranges, of either gender and regular users of TikTok.

Instruments

To collect data, a structured survey (10.6084/m9.figshare.24783279) was developed and organized into three sections based on the variables under consideration:
1. Demographics characteristics
2. Use of TikTok: This section comprises five questions, including demographic information such as gender and age. Participants are also asked about their primary social networks and the duration of TikTok usage.
3. Virtual Identity, Virtual Socialization, and Popularity: The second part includes five questions with multiple-choice answers, except for the popularity variable, which allows for selecting more than one response.

Results

The following section outlines the key findings derived from the survey instrument, shedding light on the nuances of TikTok usage, virtual identity, virtual socialization, and popularity among the selected group of Ankara University students aged 18-26.

Population characteristics

In terms of demographics, we carefully considered factors such as gender and age (Table 1). This research exhibits a notable gender distribution, with a higher participation rate among males, constituting 60% of the research. Moreover, examining the age distribution within the designated range of 18 to 26 years old, a distinct pattern emerges. The age group that demonstrated the highest engagement comprised individuals aged 21-23, constituting 50% of the participants. Conversely, the age bracket of 24-26 years old displayed the lowest participation rate at 13.33%.

Table 1

Population characteristics

Population characteristics		
Gender	**Frequency**	**Percentage**
Woman	12	40%
Man	18	60%
Total	**30**	**100%**
Age	**Frequency**	**Percentage**
18-20	11	36.67%
21-23	15	50%
24-26	4	13.33%
Total	**30**	**100%**

Description of the use of the social network Tik Tok

To delve into the habits of young people on TikToK we asked for the variable shows in Table 2. The findings reveal that Instagram is the predominant choice among respondents, with a substantial 56.67% utilizing the platform, dedicating a significant portion of their time to it. In contrast, TikTok lags Instagram, capturing the attention of 30% of the surveyed demographic.

When delving into the time spent on TikTok, a noteworthy 50% of users engage with the platform for 1-2 hours daily. While 14.3%, which represents the smallest percentage, spend more than 2 hours on this social network.

Additionally, a compelling aspect for our study is the phenomenon of temporal disorientation experienced by users on TikTok, where a striking 83.33% of respondents admitted to losing track of time while immersed in this social network.

Table 2

Description of Tik Tok usage

Description of Tik Tok usage		
Use of social networks		
	Frequency	**Percentage**
Instagram	17	56.67%
Twitter	4	13.33%
TikTok	9	30%
Total	**30**	**100%**
Hours of TikTok use		
<1 hour	10	35.71%
1-2 hours	14	50%
>2 hours	4	14.3%
Total	**28**	**93.33%**
Lost track of time by TikTok		
Yes	25	83.33%
No	5	16.67%
Total	**30**	**100%**

Virtual socialisation

Once the demographic and usage data were known, we proceeded to analyze the next variable: virtual socialisation. This aspect encompasses three distinct responses. The first denotes a low level of socialization, indicating that young individuals refrain from interacting with those outside their known social circles. The second represents a moderate level of socialization, signifying occasional interactions with unfamiliar individuals. The third characterizes a high level of socialization, wherein respondents actively engage with people they do not know through the social network.

As depicted in Table 3, a substantial 73.33% of university students exhibit a low level of virtual socialization. This implies that they predominantly utilize the social network for video consumption, limiting interactions to their existing circle of friends and eschewing engagement with individuals beyond this familiar group.

Table 3

Virtual socialisation

Virtual socialisation		
	Frequency	**Percentage**
1 (Low level)	22	73.33%
2 (Moderate level)	6	20%
3 (High level)	2	6.67%
Total	**30**	**100%**

Identity

In the context of creating a virtual identity, crucial insights emerge from the data presented in both Table 4 and Table 5, wherein pertinent survey questions shed light on factors influencing the development of this online persona. Specifically, 56.67% of the selected sample in the Ankara University acknowledged having actively assimilated values from the videos found on the social network. Notably, a significant portion of this demographic further concedes to altering their perspectives on various issues based on content consumed through this platform.

Table 4

Values acquisition

Values Acquisition		
	Frequency	**Percentage**
Yes	17	56.67%
No	13	43.33%
Total	**30**	**100%**

On the other hand, in Table 5, more than half of the students, specifically 70%, have stated that some of their habits and behaviours are reflected in the videos they see on TikTok and have even confirmed that they themselves could make some of the videos that they have seen in the "For you" page of this social network.

Table 5

Reflection of your behaviours on TikTok's "For You"

Reflection of your behaviours on TikTok's "For You"		
	Frequency	**Percentage**
Yes	21	70%
No	9	30%
Total	**30**	**100%**

Popularity

The aim of the popularity variable is to find out how the viral nature of one or more of the videos uploaded to their profile affects young people's self-esteem and confidence. In this case, only those who had viral videos responded to the survey. As can be seen in Table 6, five responses were proposed to address this variable. In response one, the viralisation of one or more of the respondent's videos increased their self-esteem and confidence. In response two, the respondent felt the same as always, it did not affect his or her perception of popularity. In response three, he/she felt that he/she stood out in something and thus got the attention of others. In response four, the student felt recognised by others thanks to the viral video he uploaded. Finally, response five refers to the fact that he wanted to upload more videos to become viral and popular in the world of TikTok.

Once the possible responses raised in the survey are known, it is worth noting that 35% of young people said that when they uploaded a video and it went viral, they felt the same as always. It did not affect their self-esteem or confidence. However, 15% wanted to upload more videos to go viral and increase their popularity on this social network. It is also worth noting that another 15% of respondents said that when they uploaded a video and it went viral, their self-esteem and confidence increased thanks to the recognition they felt from other users of this social network.

Table 6
Popularity

Popularity		
	Frequency	**Percentage**
1 (The viralisation of one or more of the respondent's videos increased their self-esteem and confidence)	3	15%
2 (The respondent felt the same as always)	7	35%
3 (The respondent felt that he/she stood out in something and got the attention of others.)	4	20%
4 (The respondent felt recognised by others thanks to the viral video he uploaded)	3	15%
5 (The respondent wanted to upload more videos to become viral and more popular)	3	15%
Total	**20**	**100%**

Discussion and conclusions

The main objective of this research was to explore the influence of the social network TikTok on identity construction, virtual socialisation and popularity in the selected sample. That is, 30 students from Ankara University, aged between 18 and 26 years old. Through a detailed analysis of demographic characteristics, TikTok usage, virtual socialisation, identity construction and perceived popularity, we sought to understand the nuances of the interaction of these factors in the lives of university students using this social network.

To begin with, in terms of the characteristics of the sample, the results reveal a higher participation of males and a peak of activity between the age of 21 and 23. This result confirms previous studies such as the one by Avilés and Peralta (2020), which states that 85% of TikTok subscribers are between 13 and 24 years old. Or the study by Gómez et al. (2022), in which they state that the influence of TikTok on the construction of identity is more noticeable in high school and university because young people are more exposed to various factors that can modify their beliefs.

In terms of TikTok usage, the significant amount of time spent on the platform stands out. Fifty percent of users spend between 1 and 2 hours per day, which indicates that they are not addicted to social networks according to Pato (2023). However, this social network encourages users to spend hours and hours watching videos due to its algorithm and short video format, as explained by Todorovich (2021). He added that the algorithm knows the likes and dislikes and uses this information to make users stay as long as possible on the app. So, undoubtedly, the potential dependency could intensify over time. Although Instagram is the social network most used by young people (56.67 %), the exponential growth that TikTok is experiencing is expected to possibly overtake Instagram among young people in a few years owing to the format of this social network.

In the same way, the effectiveness of the algorithm in retaining users on the app is evidenced by the fact that 83.33% of respondents claimed to have lost track of time when using Tik Tok.

Regarding virtual socialisation, the predominance of a low level of interaction (73.33%) indicates a preference for limiting interactions to the known circle. This is in line with the results found by Davis (2013) which confirm that students use social networks to communicate and keep in touch with their friends (i.e. their known circle). However, the preponderance of a low level of socialisation contradicts previous findings suggesting a higher degree of interaction and presenting social networks as a space for engagement and relationship building (Zapatero et al., 2009).

With regard to virtual identity, a possible influence of Tik Tok on virtual identity can be elucidated. More than 50% of respondents assimilate values and change perspectives based on the content of the platform. This is in line with Gómez et al. (2022) that social networks exert so much control in people's lives that they even modify beliefs, what is given relevance or how we perceive ourselves. And therefore, it supports the idea that interactions and viewing online content influences the identity formation of young people (Tuğtekin & Dursun, 2020). Likewise, the results of this variable support Erickson's (1968) assertion that virtual identity formation can be traced back to young people's efforts to define themselves, compare themselves to others, and seek recognition from others. And they may come to see the opinion of others as reinforcement or punishment for their behaviour Erickson (1968). This means that their values and thoughts can be influenced and shaped by the TikTok accounts they consume. Thus, it also ratifies the idea that virtual interaction combines with the creation of social status and personality characteristics of individuals, showing that they have an effect on manipulable virtual identities and their development (Tuğtekin & Dursun, 2022).

In terms of popularity, 15% experienced an increase in self-esteem by getting viral videos and another 15% expressed a desire to share more viral content to increase their popularity. So, on the one hand, this confirms what Sandoval (2018) states about the importance of environmental views and what adolescents think of themselves, how they are perceived and how they feel they are the centre of attention. But on the other hand, a significant finding is that 35% of our sample said that the viralisation of one of their videos did not affect their confidence or self-esteem. This contrasts with what Galindo (2019) states, since the young people surveyed do seek attention, but they do not strive for popularity and recognition. That is, they do not strive to carve out a privileged niche within their interactive online world through the creation and dissemination of viral videos.

Despite the achieved successes, it is crucial to acknowledge the limitations of this research, particularly the small sample size of 30 participants. As a result, the data lacks the statistical robustness required for meaningful generalizations, making the sample unrepresentative of the broader population. Furthermore, it is worth mentioning that the research seeks to describe a case study (student in Ankara University) which implies that the findings are relative to the study data and therefore apply only to those participants. Although the fact that the results cannot be extrapolated, it should be noted that they do satisfy the research objective. These limitations suggest the need for future research with more diverse samples and mixed methods to obtain a more complete and objective understanding.

In terms of future perspectives, comparative studies across different age groups, cultures and university contexts are suggested to broaden understanding of how TikTok and other platforms may impact on identity construction and virtual socialisation. In

addition, it would be valuable to further explore users' subjective experiences to capture nuances and complexities not fully addressed in this study.

Funding

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RELATIONSHIP ENGAGEMENT AND ACADEMIC DROPOUT IN MOOCS: SYNTHESIS OF AN EXPO FACTO RESEARCH
RELACIÓN ENGAGEMENT Y LA DESERCIÓN ACADÉMICA EN LOS MOOCS: SÍNTESIS DE UNA INVESTIGACIÓN EXPO FACTO

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	ABSTRACT
Keywords: engagement, edu-communication, academic dropout,	The study of student engagement in the MOOCs context is very important in the scientific community of higher and postgraduate education as it contributes to improving academic performance. However, its high academic dropout rate is known internationally. For this reason, the objectives of this study are to determine, based on a theoretical study, which engagement variables influence academic dropout in MOOCs, and to describe, based on the analysis of a questionnaire, the evaluations of the participating teachers. To achieve this end, the following research questions were posed: What are the most studied variables regarding engagement that contribute to reducing the dropout rate in MOOCs? What, in the opinion of university professors, are the variables that contribute to reducing the dropout rate in MOOCs? To achieve these objectives, a mixed research approach (systematic review and survey) was implemented, and instruments were designed and validated to obtain information. The intentional sample was comprised of university professors from two countries. The results showed that the main variables are data privacy, the design of forums, education democratization, gamification, satisfaction, and perceived quality. The article concludes with didactic and pedagogical recommendations to enhance engagement.
	RESUMEN
Palabras clave: engagement, educomunicación, deserción académica	El estudio del engagement del estudiantado en el contexto de los MOOCs cobra vital importancia en la comunidad científica de la educación superior y posgraduada pues contribuye a elevar el rendimiento académico. Sin embargo, es conocido a nivel internacional su alta deserción académica. Por tal motivo, los objetivos de este estudio son determinar a partir de un estudio teórico cuáles son las variables del engagement que influyen en la deserción académica en los MOOCs y, describir a partir del análisis de un cuestionario las valoraciones de los docentes participantes. Para ello se platearon las siguientes preguntas de la investigación: ¿cuáles son las variables más estudiadas desde el engagement para contribuir a disminuir la tasa de deserción en los MOOCs? ¿Cuáles son, a criterios de docentes universitarios, las variables que contribuyen a disminuir la tasa de deserción en los MOOCs? Para

lograr los objetivos, se desarrolló una investigación mixta (revisión sistemática y una encuesta) y se diseñaron y validaron instrumentos para la obtención de información. La muestra de tipo intencional, la conformaron profesores universitarios de dos países. Los resultados muestran que las principales variables son: la privacidad de los datos; el diseño de foros, la democratización de la educación, la gamificación, la satisfacción y, la calidad percibida. Se concluye el artículo con recomendaciones didácticas y pedagógicas para desarrollar el engagement.

Introduction

Massive Open Online Courses (MOOCs) are on the rise due to the need for professional and career advancement. Although there is a diversity of terminologies such as: cMOOC, madeMOOC, xMOOCs (eXtendedMOOCs) adaptiveMOOCs, synchMOOCs, gMOOC, tMOOC (transferMOOC), sMOOC (Social Massive Open Online Course), or the iMOOC (intelligent MOOC) by trend, empirical research uses the term MOOCs (Mellati & Khademi, 2020) with its diverse pedagogies and emerging technologies (Estrada-Molina et al., 2024; Ratnasari et al., 2024).

They are an educational tool for several reasons (Mellati & Khademi, 2020; Fernández Alemán & Estrada-Molina, 2024; Williams, 2024), for example

- Global access: MOOCs allow anyone with internet access to participate in courses taught by renowned institutions around the world. This democratizes access to quality education, eliminating geographic and economic barriers (Silva & Lisbôa, 2024).
- Flexibility: MOOCs offer flexibility in terms of time and location. Learners can access course content at any time and from anywhere, allowing them to tailor learning to their own needs and commitments (Rahimi & Cheraghi, 2022).
- Variety of topics: MOOCs cover a wide range of topics, from science and technology to humanities and the arts. This allows students to explore new fields of study or develop specific skills relevant to their career or personal interests (Lazarinis et al., 2024).
- Interactive learning: Many MOOCs use interactive technologies, such as videos, quizzes, discussion forums, and hands-on assignments, to encourage student engagement and improve knowledge retention (Saputro et al., 2024).
- Constant updating: Since MOOCs are delivered by academic institutions and experts in various fields, course content is usually up-to-date and reflects the latest developments and trends in each area of study (Turan & Yılmaz, 2024).
- Skills development: MOOCs not only provide theoretical knowledge, but also offer opportunities for the development of practical and professional skills, such as programming, graphic design, business management, among others (Florou et al., 2024).

In summary, MOOCs are important because they democratize access to quality education, offer flexibility and variety of topics, encourage interactive learning, keep content up to date and promote the development of skills relevant to today's job market.

MOOCs have transformed educational communication or educommunication by introducing new models of teaching and learning that take advantage of digital tools and online platforms (Mena et al., 2024). Some highlights about MOOCs from an educational communication perspective are:

- Global interaction: MOOCs allow global interaction between students and teachers from all over the world. This enriches the learning process by exposing participants to diverse cultural perspectives, experiences and knowledge (Rulinawaty et al., 2023).
- Two-way communication: Through tools such as discussion forums, chat rooms and videoconferencing, MOOCs encourage two-way communication between learners and facilitators. This creates a collaborative learning environment where participants can ask questions, exchange ideas, and receive direct feedback (Duan & Wu, 2023).

- Personalization of learning: By allowing students to access course content at any time and from anywhere, MOOCs provide the opportunity to customize the learning process to individual needs. Participants can proceed at their own pace and review the material as many times as necessary to fully understand it (Cheng, 2023).
- Use of multimedia media: MOOCs leverage a variety of multimedia, such as videos, infographics, animations and simulations, to present content in a visually appealing and effective way. This improves knowledge retention and student engagement with the material (Wei et al., 2023).
- Continuous evaluation: Through online quizzes, practical assignments and group projects, MOOCs offer opportunities to assess students' progress on an ongoing basis throughout the course. This regular feedback helps participants identify areas for improvement and stay motivated in their learning (Eglseer, 2023).
- Social learning: MOOCs foster social learning by connecting students to a global community of peers with similar interests and goals. This facilitates collaboration, resource sharing and the building of professional networks that can last beyond the course itself (Molina, 2023).

MOOCs have revolutionized educational communication by offering new forms of interaction, personalization, content presentation and assessment that enrich the learning process and promote active student participation.

In this educational field of higher and postgraduate education, one of the lines of research is the reduction of academic attrition in MOOCs, one of its educommunicative variants being the study of engagement (Anghel et al., 2023).

Engagement, or commitment, plays a fundamental role in MOOCs, as it is a key factor in the success of online learning. Some ways in which engagement and MOOCs are related are:

- Course interactivity: MOOCs can offer a variety of interactive activities, such as videos, quizzes, discussion forums and hands-on assignments, which encourage active student participation. These activities keep participants engaged with course content and promote greater knowledge retention (Gamage et al., 2020).
- Personalization of learning: MOOCs allow students to access course content at any time and from anywhere, giving them the flexibility to tailor learning to their own needs and preferences. This personalization increases engagement by allowing participants to follow their own pace and focus on the topics that are most relevant and interesting to them (Cheng, 2023).
- Feedback and feedback: MOOCs offer opportunities to receive feedback from both course facilitators and other participants. This constant feedback helps students evaluate their progress, identify areas for improvement, and stay motivated in their learning (Dalipi et al., 2021).
- Collaborative learning: MOOCs facilitate collaborative learning by connecting students to a global community of peers with similar interests and goals. This promotes social interaction, the exchange of ideas, and the building of professional networks that can increase engagement and enrich the learning experience (Sastre et al., 2018).
- Gamification: Some MOOCs use gamification techniques, such as points, levels and rewards, to motivate students and increase their engagement with the course. These strategies make learning a more fun and rewarding experience, which can improve engagement and academic performance (Gené et al., 2014).

Engagement is critical to the success of MOOCs, as it promotes active participation, increased knowledge retention and a more satisfying learning experience for students. MOOCs offer a variety of tools and strategies to foster engagement and keep participants motivated in their online learning process.

State of the Art. Engagement and Academic Attrition in MOOCs

The relationship between engagement and academic performance in MOOCs is a topic of great importance, as the level of student engagement can significantly influence their success in the course. Some key points about this relationship are:

- Motivation and effort: Engagement is closely related to the motivation and effort students are willing to invest in the course. Highly engaged participants tend to devote more time and energy to study, which can translate into better academic performance (Badali et al., 2022).
- Participation: Engaged learners tend to participate more actively in course activities, such as watching videos, completing practical assignments, participating in discussion forums, and collaborating with other participants. This involvement can improve their understanding of the material and their ability to apply it in practical situations, which is reflected in improved academic performance (Liyanagunawardena et al., 2014).
- Knowledge retention: Engagement is also related to long-term knowledge retention. Students who are engaged in the course tend to pay more attention to the content and participate in review and practice activities, which helps them consolidate what they have learned and recall it more easily during subsequent assessments (Khalil & Ebner 2014).
- Interaction with feedback: Engagement can influence how learners interact with the feedback and feedback provided by course facilitators. Engaged participants tend to value and actively use feedback to improve their academic performance, whereas those with lower levels of engagement may overlook this important information (Goopio & Cheung, 2020).
- Persistence and completion of the course: Engagement can also affect persistence and course completion rates. Highly engaged students are more likely to persevere throughout the course, overcome challenges, and successfully complete all required activities and assessments (Xing, 2018).

Therefore, there is a positive relationship between engagement and academic performance in MOOCs. Students who are highly engaged in the course tend to show greater motivation, participation, knowledge retention, interaction with feedback, and persistence, which translates into better overall academic performance.

Several quantitative and qualitative studies have been conducted in relation to engagement and MOOCs, but few have studied how they influence academic attrition (Estrada-Molina & Fuentes-Cancell, 2022; Sanz-Martínez et al., 2019). In this regard, several pioneering studies (Er et al., 2019) establish the main causes of attrition. These refer, as expressed in the systematic study Estrada-Molina & Fuentes-Cancell (2022), to motivation; time availability; attitude; interest; tutoring; interactivity and feedback; accessibility of educational resources; engagement, among others (p. 112). In this sense, motivation plays a crucial role in the commitment to a MOOC course, mainly due to the following factors

- Autonomy and choice: MOOCs typically offer a wide range of topics and approaches, allowing students to choose courses that align with their personal or professional interests and goals. This autonomy in choice increases intrinsic

motivation, as students feel more engaged when they are studying something that genuinely interests them (Ding & Shen, 2019).

- Relevance and applicability: Students are more motivated when they perceive that what they are learning is relevant and applicable to their life or career. MOOC courses that offer practical and applicable content increase students' motivation by showing them how they can use what they are learning in real situations (Wang et al., 2023).

- Interactivity and participation: MOOC courses that encourage interaction among students and with the instructor tend to increase engagement. Participation in collaborative discussions, activities, and projects can increase motivation by providing opportunities for social learning and constructive feedback (Chen et al., 2018).

- Feedback and recognition: Regular and constructive feedback is essential to keep student motivation high. MOOC courses that provide timely feedback on student progress, as well as recognition for achievements, reinforce intrinsic motivation by demonstrating to students that their effort and dedication are valued (Ramirez-Fernandez, 2015).

- Clear and challenging objectives: Setting clear and challenging goals can increase motivation by providing students with a sense of direction and accomplishment. MOOC courses that set clear expectations and provide opportunities to achieve meaningful goals can foster greater student engagement (Von Schmieden et al., 2022).

The latent concern of academic attrition in MOOCs leads the scientific community to study its causes, focusing its attention on engagement. This term is a construct that integrates in the configuration of personality, what is related to commitment, interest, participation, emotion, enthusiasm and motivation of the student body which, in this educational context, refers to learning and school permanence in the context of MOOCs. As expressed by Deng et al. (2020) and Deng (2023) this construct is structured as social, emotional, cognitive, and behavioral engagement. In this context of engagement in MOOCs to help reduce attrition, studies that analyze the following engagement variables stand out: data privacy, peer review, e-activities design, motivation and intrinsic communication (Kasch et al., 2021; Khalid et al., 2020).

Genesis of the Research Expo Facto

Taking into account the theoretical and empirical studies mentioned above, we developed during January 2020 to March 2023 an educational research to deepen the causes that influence from engagement to academic attrition in MOOCs. To this end, theoretical studies (Estrada-Molina & Fuentes-Cancell, 2022; Estrada-Molina et al., 2021; Fuentes-Cancell et al., 2021;) and case studies (Granda Dihigo et al., 2023; Estrada-Molina 2022; Estrada-Molina et al., 2022) were conducted with diverse samples from university faculty in two countries (descriptive level). Although we have published some studies referring to partial and individual results, in this descriptive article we intend to group and compare the theoretical and empirical results obtained, thus contributing to didactics in higher education related to the design of MOOCs.

Method

The research is descriptive, mixed and expo-facto. An expo-facto type of educational research (Mateo, 2004) is a type of study that is conducted after the events

have occurred, which means that the researcher has no control over the independent variables, since they have already occurred naturally. This type of research focuses on observing and analyzing the effects of certain independent variables on a dependent variable, without the direct intervention of the researcher.

This type of research is useful when it is not ethical or practical to manipulate the independent variables experimentally. However, it may be more difficult to establish clear causal relationships due to the lack of experimental control.

On the other hand, descriptive research is a research method that focuses on describing and characterizing a phenomenon or situation as it is, without manipulating variables or looking for causal relationships. Its main objective is to provide a detailed and accurate representation of the characteristics, behaviors or phenomena observed in a particular context (Sampieri, 1988).

In descriptive research, researchers collect data through techniques such as surveys, observations, interviews or document analysis. They then analyze and present these data in a systematic way to describe the essential characteristics of the phenomenon studied.

This type of research is common in many disciplines, including psychology, sociology, education, public health, and market research, among others. Although descriptive research does not seek to establish causal relationships or explain why certain phenomena occur, it provides a solid base of information that can serve as a starting point for further research, including exploratory or experimental studies that seek to better understand the relationships between variables.

Therefore, the objectives of this study are to to determine, based on a theoretical study, which are the engagement variables that influence academic attrition in MOOCs and, based on the analysis of a questionnaire, to describe the evaluations of the participating teachers. To this end, the following research questions were posed.

Question 1. what are the most the most studied variables from the engagement perspective to contribute to decrease the dropout rate in MOOCs?

To answer this question, a systematic review was carried out applying the PRISMA protocol to research published in journals indexed in Scopus or WoS.

Question 2. what are, according to university professors, the variables that contribute to reduce the dropout rate in MOOCs?

In this question, a validated questionnaire was applied, consisting of the variables identified as results of Question 1.

Context. Population and Sample

The study was conducted at two points in time:

- First moment. Second academic year of the Master in Virtual Education "2019-2021 edition". Universidad de las Ciencias Informáticas (UCI), Cuba, during October 2020 to February 2021 in the context of the subject: Network training methods.
- Second moment. Third academic year of the Academic Master's Degree with a professional career in Education. Mention ICT-mediated Learning Management "2022-2023 edition". Universidad Técnica de Manabí (UTM), Ecuador, during January-February 2023 in the context of the subject: Fundamentals of virtual education.

In the first instance, the population and sample consisted of the 43 university professors enrolled in the Master's Degree in Virtual Education. The second sample consists of 26 teachers from Ecuador enrolled in the academic Master's degree with a

professional career in Education, mentioning ICT-mediated Learning Management (Table 1).

Table 1
Sample distribution

Demographic data	Sample 1 (43) Master's Ed. Virtual. Cuba	Years as university teachers Sample 1	Sample 2 (26) Academic Master's Degree in Ed. Mention ICT-mediated Learning Management. Ecuador	Years as university teachers Sample 2
Women	23	M = 7.5	17	M = 8.1
Men	20	M = 8.1	9	M = 7.6
Total	43	M = 8.0	26	Me = 7.5

Research Techniques and Instruments

In relation to the first research question, the PRISMA protocol was applied and an in-depth analysis of the content of the evidence obtained in the theoretical analysis was used. For the validation of the content, Cohen's Kappa coefficient (k=0.826) was applied to the evaluations of the teacher researchers, obtaining 96% coincidence (Cohen, 1960).

In relation to the design of the questionnaire applied to the two samples of university professors in Cuba and Ecuador (question 2), a Likert-type scale of five values was designed (1 = Not at all, 2 = A little, 3 = Somewhat, 4 = Quite a lot and 5 = A lot) composed of the variables established in the scientific literature and the result of question 1 of the research. The expert technique (n = 33) was used for the content validity of the questionnaire. The experts are Doctors of Education Sciences and come from Spain, Ecuador and Mexico. The overall questionnaire (internal consistency) has a Cronbach's Alpha (α) value equal to 0.87. For the validity of understanding, two pilot studies were conducted, the first in 2021 with seven professors from the institution itself (UCI-CUBA) and 19 students (UCI-Cuba) and the second, with 10 students of the academic master's degree with a professional career in Education, mentioning ICT-mediated Learning Management, (UTM-Ecuador).

The Kaiser-Meyer-Olkin test applied to the questionnaire was adequate (KMO = ,862) and Bartlett's test of sphericity showed adequate figures ($\chi 2$ = 3059.53; p < ,001). The questions were structured in three parts. First, from a qualitative perspective, the teachers had to assess which variables, from an engagement perspective, contribute to reducing the academic dropout rate in MOOCs. Subsequently, from the quantitative point of view, they had to score according to a five-value Likert scale (1 = Not at all, 2 = A little, 3 = Somewhat, 4 = Quite a lot and 5 = A lot), the 15 variables that were identified as the theoretical result of the research (Question 1). Finally, they were to propose some recommendations for developing engagement in MOOCs.

To measure the results of the questionnaire, the following measures were used: mean (M) and standard deviation (σ).

Investigation Procedure

The research consisted of three phases. First, to answer Question 1, a systematic review was conducted to identify the most studied variables from the engagement perspective to help reduce the attrition rate in MOOCs. Subsequently, in relation to Question 2, a questionnaire was designed, validated and applied to 69 university teachers from Cuba and Ecuador (Table 1), who are enrolled in two university master's degrees

and who in turn took a course whose professor is the author of the research. All teachers (student participants) agreed to voluntary participation in the research.

Results

Question 1. what are the most studied variables from engagement to contribute to decrease the dropout rate in MOOCs?

To summarize the results obtained in the systematic review and previously published, the main variables are (Estrada-Molina & Fuentes-Cancell, 2022).

- General education "students of various ages". The most commonly used variables are: data privacy; forum design; democratization of education; gamification; satisfaction and perceived quality.
- University education. In this scenario, the following variables stand out: e-activities design; intrinsic and extrinsic motivation; personal learning networks; and peer review.
- Postgraduate education. The following variables are highlighted: communication and social media; e-activity design; motivation and intrinsic communication (p.117).

Question 2. what are, according to university professors, the variables that contribute to reduce the dropout rate in MOOCs?

Qualitative Results

The following are some random comments on the opinions or evaluations of the university professors in the applied samples.

- I believe that, among the engagement variables are: learning strategies and psychological factors related to virtual exams (teacher 1, sample 1, Cuba).
- The variables may be diverse, but the most influential are the design of e-activities and extrinsic or intrinsic motivation (teacher 15, sample 1, Cuba).
- Engagement is definitely related to attrition in MOOCs with peer review, motivation, interactivity and e-activities design being the most influential (teacher 33, sample 1, Cuba).
- In Ecuador, based on my teaching experience, we do not use MOOCs, although we do use various virtual courses, and one of the engagement factors or variables that have the greatest impact is the design of electronic activities (teacher 15, sample 2, Ecuador).
- In MOOCs, from an engagement perspective, I believe that the influential variables are student autonomy, study planning and motivation (teacher 20, sample 2, Ecuador).
- Engagement, whether social, cognitive or attitudinal, influences retention or dropout in MOOCs or virtual courses in a general sense. The design of learning activities, personal satisfaction, gamification and interactivity are the most influential variables. (teacher 25, sample 2, Ecuador).

Quantitative Results

In the application of the questionnaire based on the variables obtained in the theoretical study (question 1), the design of forums, democratization of education, design of e-activities, intrinsic communication, personal learning networks and motivation are the most influential variables (Table 2).

Table 2
Mean and standard deviation of the two study samples

Variables resulting from Question 1		Sample 1 (43 teachers-Cuba)		Sample 2 (26 teachers-Ecuador)	
		M	σ	M	σ
General Education	Data privacy	4,19	0,39	4,2	0,63
	Forum design	3,91	0,43	4,1	0,27
	Democratization of education	3,93	0,34	3,9	0,33
	Gamification	4,98	0,15	4,4	0,90
	Satisfaction	4,93	0,34	4,7	0,49
	Perceived quality	4,79	0,47	4,6	0,57
University Education	Design of e-activities	4,84	0,37	4,7	0,49
	Intrinsic motivation	4,81	0,39	4,8	0,43
	Extrinsic motivation	4,95	0,30	4,7	0,55
	Personal learning networks	4,93	0,26	4,9	0,27
	Peer review	4,00	0,00	4,1	0,27
	Communication and social media	3,98	0,15	4,0	0,20
Postgraduate education	Design of e-activities	4,93	0,26	4,9	0,27
	Motivation	4,95	0,21	5,0	0,20
	Intrinsic communication	4,98	0,15	4,9	0,27

Discussion and Conclusions

As a result of the systematic review (Question 1), it was found that the academic literature identifies 25 variables that, from the study of engagement, influence academic attrition in MOOCs. Of these, 13 are those with the greatest agreement among the authors. It is interesting to note that, in the case of university and postgraduate education (higher than undergraduate level), the most studied variables refer to the design of e-activities, intrinsic motivation and extrinsic motivation, moving away from those related to gamification.

The empirical study of the purposively selected samples shows that the majority of the university teachers surveyed

- They generally agree that the variables related to the design of e-activities, communication and motivation are the most influential.
- And, that engagement variables (investigated, but not highlighted as regularities in the scientific literature (question 1), such as: autonomy and learning planning also influence academic dropout and should be taken into account to strengthen school retention.

In the recommendations that we obtained as theoretical (question 1) and empirical (question 2) results to develop student engagement in MOOCs and thus reduce academic dropout in Higher and Postgraduate Education, we find:

a) increase the teacher's presence in the tutoring and learning feedback processes (Löh et al., 2024; Estrada-Molina & Fuentes-Cancell, 2022),

b) design e-activities that promote meaningful learning and motivating educational resources (Castillo-Abdul et al., 2021),

c) breaking the barrier of content transmission and visualization without proper interaction, interactivity and feedback between the teacher, the learning community and the student (Li et al., 2024); and

d) promote self-regulation of learning and self-efficacy of web-based learning (Shen et al., 2024; Repáraz et al., 2020).

This allowed us to verify the theory that engagement in MOOCs contributes to the development of the following aspects:

- Autonomy and choice of content and courses influencing intrinsic motivation (Ding & Shen, 2019).
- Meaningful learning and its relationship to MOOC course content through practical application of skills in real situations (Wang et al., 2023).
- Interactivity and participation among members of the educational community (Chen et al., 2018).
- Regular and constructive feedback reinforcing intrinsic motivation, effort and dedication (Ramirez-Fernandez, 2015).
- The relationship between challenging objectives, content based on meaningful learning, learning activities and formative assessment. (Von Schmieden et al., 2022).

In closing, we consider that a vital theoretical and practical aspect is perceived quality. It establishes that to promote engagement in MOOCs, coherence must be achieved between the learning objectives and goals, the design of the activities and the expectations of the student body. Perhaps, in this sense, it is important to develop 1) training pills (NOOC) as a complement, 2) constructivist alternatives (cMOOC) and 3) e-activities based on educational videos (madeMOOC).

Although this study was significant at the level of case studies, it is limited by the fact that the sample is small and, therefore, the results cannot be generalized. In any case, in our opinion, the didactic theory regarding the relationship between engagement and MOOCs is enriched and confirmed.

The research helped us to learn about faculty perspectives and clues to improve our teaching performance in MOOCs. As a line of future work, it is established to analyze and compare how peer assessment and self-assessment influence the engagement of students enrolled in MOOCs.

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EFFECTIVE COMMUNICATION MODEL FOR THE DISSEMINATION OF PUBLIC INVESTMENT PROGRAMS AND PROJECTS OF THE DEPARTMENT OF LORETO, PERU

MODELO DE COMUNICACIÓN EFECTIVA PARA LA DIFUSIÓN DE LOS PROGRAMAS YPROYECTOS DE INVERSIÓN PÚBLICA DEL DEPARTAMENTO DE LORETO, PERÚ

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	ABSTRACT
Keywords: effective communication, dissemination, programs and projects, public investment, communication models.	This investigation has been developed with the general objective of determining an effective communication model for the dissemination of Public Investment Programs and Projects (PIP) of the Department of Loreto, Peru. Theoretically, it was based on effective communication models: empirical - experimental, functionalist and network communication. From the methodological perspective, it was based on a quantitative methodological strategy, at a descriptive level, with a non-experimental, cross-sectional field design, which was supported by surveys applied to the lieutenant governors of the towns located on the borders with Colombia and Brazil. Once the field work was developed, the information was processed, thus generating the descriptive analysis, the discussion of the results and the proposed model. In essence, it was concluded that there are important limitations in the current model of PIP dissemination in the Department of Loreto, weaknesses concerning all elements of communication: dispersed and unprepared senders, uncharacterized receivers, wasted channels, uncoded and non-contextualized messages, unstimulated feedback. In view of which the Model of Effective Communication for the Diffusion of PIPs (MCE-D-PIP) is designed, which proposes the development of a Situational Room for Effective Communication (SSCE-PIP), which allows to enhance the roles of producers, consumers and prosumers of information, through the diversification of channels and a specialized coding of the message,

depending on the context: cultural diversity, educational conditions, technological factors, among others.

RESUMEN

Palabras clave:
comunicación efectiva, difusión, programas y proyectos, inversión pública, modelos de comunicación.

Esta investigación ha sido desarrollada con el objetivo general de determinar un modelo de comunicación efectiva para la difusión de los Programas y Proyectos de Inversión Pública (PIP) del Departamento de Loreto, que ocupa la tercera parte del territorio del Perú, y, dadas sus características geográficas, existe mucha influencia cultural de Colombia y Brasil. Desde la perspectiva metodológica, se basó en un enfoque cuantitativo, de nivel descriptivo, con un diseño de campo, no experimental, transversal, que se apoyó en encuestas aplicadas a los tenientes gobernadores de los poblados ubicados en las fronteras con Colombia y Brasil. Una vez desarrollado el trabajo de campo, se realizó el procesamiento de la información, generando así el análisis descriptivo, la discusión de los resultados y la propuesta de modelo. En esencia, se llegó a la conclusión de que existen importantes limitaciones en el modelo actual de difusión de los PIP en el Departamento de Loreto, debilidades concernientes a todos los elementos de la comunicación: emisores dispersos y no preparados, receptores no caracterizados, canales desaprovechados, mensajes no codificados ni contextualizados, retroalimentación no estimulada. En vista de lo cual se diseña un Modelo de Comunicación Efectiva para la Difusión de los PIP (MCE-D-PIP) que plantea el desarrollo de una Sala Situacional de Comunicación Efectiva (SSCE– PIP), que permita potenciar los roles de productores, consumidores y prosumidores de la información, mediante la diversificación de los canales y una especializada codificación del mensaje, en función del contexto: diversidad cultural, condiciones educativas, factores tecnológicos, entre otros.

Introduction

Public investment refers to government spending on economic infrastructure such as airports, roads, railroads, water and sewage systems, electricity and gas utilities, telecommunications and social infrastructure such as schools, hospitals and prisons (IMF, 2015). Therefore, public investment is considered a key element in the development of countries, especially to consolidate the economic and social infrastructure necessary for their growth.

In this context, the operational effectiveness of the formal governance framework for public investment management must be a major priority. Among other issues, it is critical to introduce best practices for conducting and prioritizing project selection (Plan, Jordan Economic Growth, 2018).

Also, given that a large part of the investment is financed with public funds, there is a clear need to inform the public about the main results, to allow interested persons to follow the ongoing developments and form their own opinion based on solid facts and real, objective data. The process of informing requires, then, communication and, in turn, it is ideal for this to be effective, so it is relevant, for effective dissemination, to match the media with the message and the needs of the audience.

The PIPs are aimed at improving the production capacity of public goods or services, as well as providing training, technology transfer and technical assistance in productive projects to all districts and localities in the country, especially those areas classified as poor. However, it is necessary to adopt a method that works for the target audience and for the type of content to be delivered.

In Peru there are areas with a high potential for productive activity (agriculture, livestock, fishing and others), but in terms of public services or infrastructure, there are deficiencies that limit the social welfare of its citizens, an example of which is the Department of Loreto, which is part of the Peruvian Amazon, which occupies almost 29% of the national territory. Also, unfulfilled promises in the past or poor management may have left a legacy of distrust.

The Department of Loreto presents economic characteristics that peculiarly define its behavior with respect to other regions or localities in the country and, therefore, the interest of public investment (Office of Information Management and Statistics of the Congress of the Republic, 2019). In this sense, the PIPs seek to counteract these shortcomings and it is important to disseminate the achievements for the recognition of the beneficiary regions.

According to Mea, et al. (2016) dissemination actions should be aimed at well-defined audiences, and their relevance lies in the fact that the results of a project may be of interest to the general public, but also to specialists and high-level policy makers.

For the authors, this audience needs to be informed about the project, its progress, its results, its products and its legacy. However, to disseminate something effectively, in any context, and to evaluate the success of that dissemination, you must first be clear about what you are trying to achieve.

In this regard, it is important to consider the Department of Loreto, since it has infrastructure deficiencies. For example, inadequate access roads and land communication, and, considering that a large part of its geographic extension is riverine, this results in poor accessibility and integration of the department into the dynamics of the national economy. Likewise, more than half of the towns in the Department of Loreto have communications (telephony, cable and Internet), while the rest of the towns do not have access to media or do not have these services, in addition to not having electricity,

or, in any case, only receive it for hours at a time. It is not easy to access an Internet network, and if these populations have access to it, the data transfer is very slow or insufficient.

The benefit of effective communication that links transparency in the management of state institutions and citizens' access to information and the exercise of monitoring, control and evaluation practices of government actions is evident, in order to promote the efficient use of public funds allocated to public investment.

Common difficulties encountered during dissemination to different target groups include information sharing between projects, involvement of local stakeholders and open access.

Author Hargie (2016) refers that he has conducted research and operational audits in a wide range of public and private sector organizations in several countries, obtaining that the main essence of what is most valued by staff is communication. Also, the first and most important factor is having an effective line manager, which is a benchmark measure, as it is a central indicator of effective communication throughout the organization. If employees value their hierarchical superior very positively, they value the organization very positively.

From this reality, it is necessary to answer the following research questions:

what effective communication model can be defined for the dissemination of Public Investment Programs and Projects for the Department of Loreto, Peru?

what is the current situation regarding the dissemination of public investment programs and projects in the Department of Loreto, Peru?

what are the informational needs that the communication model selected for the Department of Loreto Peru would respond to?

what are the elements of the communication model for the dissemination of public investment programs and projects in the Department of Loreto, Peru?

what are the public investment programs and projects carried out in the Department of Loreto, Peru?

what benefits would the selected communication model generate in the development of public investment programs and projects in the Department of Loreto, Peru?

Theoretical Framework

This study is based on the theory of effective communication, the conceptualization of public investment programs and projects, and the characterization of the Department of Loreto, officially considered the largest region of Peru in terms of geographic extension, occupying 38% of the country's border with Colombia and Brazil.

The theory of effective communication in the cross-cultural workgroup describes how culture and cultural diversity influence workgroup communication and, subsequently, how communication affects group outcomes. The theory suggests that situational characteristics, the composition of the group as homogeneous or heterogeneous, and cultural and individual characteristics affect the likelihood that a group will have effective communication. The relationship of situation, composition, and individual factors can be complex in determining whether a group will have effective communication (Oetzel, 2017).

The theory reviewed identifies four communication processes that comprise effective communication: (a) equitable participation, (b) consensus decision-making, (c) cooperative conflict, and (d) respectful communication. Equal participation refers to a relatively even distribution of turns among group members. Consensus decision making

focuses on the commitment and general agreement with the decisions made by the group. Cooperative conflict includes the collaborative management of conflict when it arises in the group. And respectful communication includes listening and dialoguing in a way that values and appreciates others, even when there are differences of opinion (Oetzel, 2017).

Effective communication is associated with a core aspect of the communication process, which is the satisfaction of the informational needs that the subjects involved may present. In terms of informational needs, it should be noted that these include the individual's own needs, such as the basic or physiological needs of hunger, thirst, sleep, among others, as well as those of protection or security, or of fulfillment, on a higher scale.

On informational needs there are several authors who have produced research from different disciplinary approaches, however, for the purposes of this research, it is considered that the author Calva (2004) makes a significant, accurate and timely contribution to the analysis of information needs through his book entitled "Las necesidades de información. Theoretical foundations and methods", where he explains that informational needs arise in people from a dissatisfaction originated by (a) "The lack of some knowledge or information about a phenomenon, object, or to solve a problem", (b) "The influence of an environment (social, political, scientific, etc.)" and (c) "The particular characteristics (experience, previous knowledge, etc.) that the subject has, since they also influence the appearance of a need for information" (p.76).

Regarding the elements of communication, this research takes into account the Network Communication Model, which is based on the current context of the network-Internet in the information society, where individuals interact in multiple and diverse sources or media that offer messages of different contents directed to a heterogeneous population with complex profiles.

Research that addresses networks in the subject of communication, according to Marulanda (2015, p. 39), maintains the key elements of the communicative process and adjusts the essential aspects that make up a network such as users or interaction nodes. Thus, the following are found: transmitter, receiver, flow, orientation, effects, and channel.

Regarding the benefits of effective communication, Hargie (2016) indicates a range of considerable benefits at the organizational level, such as higher productivity, higher quality of services and products, higher levels of trust, greater commitment, higher levels of creativity, and higher job satisfaction. It also improves labor relations, increases acceptance of change, reduces absenteeism and staff turnover.

So its relevance lies in the fact that the flow of effective communication develops strong bonds between those who apply it. However, there are many obstacles in the practice of effective communication, so this becomes a major obstacle to effective communication strategies. It is not the responsibility of any one person, it is a team effort with organizational help or support and is an essential area of research for the development of the organizational goal for a rapidly changing era.

In the development of societies, especially in relation to the well-being and quality of life of citizens, public investment is a vital tool in the fight against social inequalities. The role of the State, at all levels, should be oriented towards the design, execution and evaluation of public investment programs and projects, aimed at satisfying needs.

Public investment refers to government spending on economic infrastructure such as airports, roads, railroads, water and sewage systems, electricity and gas utilities, telecommunications and social infrastructure such as schools, hospitals and prisons (IMF, 2015).

The term "public investment" is also sometimes used by governments in a broader sense to refer to spending on human capital, such as education and health spending, or

financial investments by government institutions, such as sovereign wealth funds. However, the literature on public investment management focuses on spending related to physical assets (Miller & Mustapha, 2016).

The PIP formulation and development process is called the Project Cycle, which consists of a sequence of steps or stages that must be followed in every instance, namely: pre-investment, investment and post-investment. Each of these stages must be in accordance with the principles of the National Public Investment System.

Regarding the dissemination of information, the following elements must be considered: what type of information is to be transmitted, to whom it is addressed or with whom I wish to share it (user-consumer profile), what is the systematization of the messages I wish to transmit in terms of frequency, tone and form (format), what are the security criteria, what are the policies for response and treatment of information, what are the media to be used to transmit the information (Hutt, 2012).

For geographic purposes, the Loreto Region is known as the Department of Loreto. In this section, this term will be used to describe the characteristics of Peru's largest geographic region: Loreto.

According to information provided by the Information and Statistics Management Office of the Congress of the Republic (2019) and the Central Reserve Bank of Peru (2018):

> The department of Loreto occupies an area of 368,852 km2, which represents 28.7 percent of the national territory, placing it in first place in the ranking of departmental extension; it is also located in the extreme northeastern part of the Peruvian territory. Loreto has 3,891 kilometers of international borders with three countries: Ecuador to the northwest, Colombia to the northeast and Brazil to the east.

This border extension represents 38 percent of the country's total border, receiving cultural irradiation from neighboring localities such as Leticia (Colombia) and Tabatinga (Brazil). It is also divided into 8 provinces and 53 districts, in which 705 of the 1,786 indigenous communities nationwide are located (p.5).

Loreto is divided into 8 provinces. Requena, Maynas, Ramon Castilla, Putumayo, Loreto Nauta, Ucayali, Alto Amazonas and Datem Del Marañon. These 8 provinces are home to 53 districts (Banco de Reserva del Perú, 2018).

In addition, the territory of Loreto belongs to the so-called "Amazonian plain", whose lowest altitude is 61 meters above sea level, and the highest is 220 meters above sea level, where two types of terrain can be distinguished: alluvial and hilly.

Other geographic aspects that can be highlighted in Loreto, and that is part of its characterization, have to do with its natural resources, among which the flora, fauna and hydrography stand out. These characteristics are explained in the Regional Information System for Decision Making (SIRTOD, 2020) of the National Institute of Statistics (INEI) of Peru:

- Flora: consists of several botanical species, including timber trees and other species of commercial and medicinal value, including willows, palms, mahogany, cedar, chestnut, walnut, camphor and matapalo.
- Fauna: In this department there is a variety of wild species, among which we can highlight: lizards, otorongos, boas, anacondas, peccaries, sachavacas, deer, ronsocos, monkeys, sloths, turtles, taricayas, parrots, red bufeos. It is important to note that there are also endangered species such as jaguars, black lizards, manatees, various river turtles, river otters, scarlet macaws, pink dolphins, and paiches.

- Hydrography: Loreto has a hydrographic system composed of a variety of rivers, among which the Amazon, Ucayali, Marañon, and Huallaga are the main ones. There are also the Nanay, Itaya, Ampiyacu, Morona, Pastaza, Tigre, Napo, Putumayo, Yavari, and Cochiquinas rivers.

Method

The present research is framed within the quantitative approach, of descriptive type, which has used as social research techniques the survey, which was applied to 53 lieutenant governors. The instrument was derived from the following operationalization of variables:

Table 1
Operationalization of variables

Variable	Dimension	Indicators
Effective communication	Information needs	Use and usefulness of the information. Manifestation of need. Information content. Position in time. Collective or specific nature.
	Elements	Emitter-producer. Receiver-consumer. Flow - message. Orientation: technique and context. Channel. Effects-feedback.
	Benefits	Satisfaction of needs. Participation of the subjects. Transparency in management.
Public Investment Programs and Projects	PIP Phases	Pre-investment. Investment. Post investment.
	Dissemination of information	Type of information to be disseminated. User-consumer profile. Format of the information. Safety criteria. Response and treatment policies of the information. Media or channels.

Note. This operationalization of variables is the result of the theoretical framework approach

The hypotheses formulated, which were answered in this research work, are presented below:

Main hypothesis: The definition of an effective communication model will allow the dissemination of Public Investment Programs and Projects for the Department of Loreto, Peru.

Secondary hypothesis 1: The dissemination of public investment programs and projects in the Department of Loreto, Peru, is poorly developed.

Secondary hypothesis 2: The informational needs of the citizens of the Department of Loreto Peru are met in the effective communication model.

Secondary hypothesis 3: The elements of the communication model are effectively integrated for the dissemination of public investment programs and projects in the Department of Loreto, Peru.

Secondary hypothesis 4: The public investment programs and projects developed in the Department of Loreto, Peru, respond to the needs of the community.

Instrument

In the present investigation, the survey technique and the questionnaire instrument were used. The survey technique, according to Palella & Martins (2012), aims to obtain data from several people whose opinions are of interest to the researcher. For Hernández et al (2014), the questionnaire is a "set of questions regarding one or more variables to be measured" (p. 217).

For the purposes of this research, a questionnaire was designed to collect information on the variables under analysis, namely, effective communication and public investment programs and projects. For the first variable, a total of 43 items were defined, while for the second variable, 27 items were elaborated, for an overall total of 70 items.

The questions were constructed following the parameter of closed-ended items, that is, questions that "contain previously delimited response options" (Hernández et al, 2014, p.217), which are usually easier to code and analyze. The selected response options correspond to the Likert scale of: never, rarely, sometimes, almost always, and always.

The data collection instrument designed for the collection of information in the present research was submitted to the validity and reliability of three (3) experts in the area of theoretical knowledge and research methodology, who gave their favorable judgment on the validity of the instrument, considering its theoretical and methodological construct and general aspects, such as writing, spelling and internal coherence.

The reliability of the data collection instrument of this research was very high, which shows that it is reliable, that is, that the items allow measuring the study variables adequately and without errors.

To establish the reliability of the instruments to be applied in this research, a pilot test was conducted on subjects with similar characteristics to the population and/or units of analysis of the research.

Once the information was collected through the selected instruments, the findings were interpreted, analyzed and discussed, which explain the reality of the object studied.

Thus, the information gathered in this research was treated statistically, using the descriptive and inferential technique, using the statistical program SPSS Version 26, presenting the data obtained through tables, where frequencies and percentages are interpreted, thus using descriptive statistics. Descriptive and inferential statistics are used to analyze the data. This includes calculating the results for a population (or sample), as well as assessing the significance of the results (Håkansson, 2013).

Results

Table 2
Frequency distribution of the variable effective communication

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Under	16	30,2	30,2	30,2
	Medium	37	69,8	69,8	100,0
	Total	53	100,0	100,0	

Note. As can be seen, 69.8% of the respondents considered that effective communication for the dissemination of public investment programs and projects in the Department of Loreto is at a medium level. While 30.2% are at a low level.

The table shows a lack of effective communication, which requires the implementation of strategies and mechanisms to improve the dissemination of the PIPs to the subjects, social groups and organizations in the area of influence of public management.

Table 3
Frequency distribution of the information needs dimension

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Under	14	26,4	26,4	26,4
	Medium	39	73,6	73,6	100,0
	Total	53	100,0	100,0	

Note. It can be seen that 73, 6 % of the respondents considered that the informational needs for effective communication are at a medium level. While 26.4% is at a low level.

According to the table, society in the region does not have adequate access to public information, because it is not attractive, even though it has to do with tangible solutions to citizen problems such as viability, transportation, lighting, educational and health services, among others.

Table 4
Frequency distribution of the elements dimension

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Under	16	30,2	30,2	30,2
	Medium	37	69,8	69,8	100,0
	Total	53	100,0	100,0	

Note. Regarding the elements dimension, 69.8% of the respondents reported an average level. Meanwhile, for 30.2% it is at a low level.

The basic elements of the communication process are sender, message and receiver, which, according to the table, are not working properly. It is failing, mainly, the sender-producer of the message, which is key to achieve the feedback that will allow a better decoding by the citizen.

Table 5
Frequency distribution of the benefits dimension

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Under	25	47,2	47,2	47,2
	Medium	28	52,8	52,8	100,0
	Total	53	100,0	100,0	

Note. It can be seen that the majority of respondents consider the benefits dimension to be at a medium level (52.8%) while another part considers it to be at a low level (47.2%).

From the table, it is clear that communication is not effective because it does not have a positive impact on the organization's benefits, which have to do with productivity, quality, trust, and commitment.

Table 6
Frequency distribution of the dissemination of information dimension

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Under	20	37,7	37,7	37,7
	Medium	33	62,3	62,3	100,0
	Total	53	100,0	100,0	

Note. As for the information dissemination dimension, 62.3% is at a medium level. While 37.7% consider it to be at a low level.

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According to the table, the dissemination of information is not effective because the messages are not published in each of the phases of the investment programs and projects: pre-investment, investment, and post-investment.

Discussion

The results show the behavior of the variables studied, based on their respective dimensions and indicators. In this section, these results are contrasted with the theoretical and conceptual approaches on which this research is based.

These are focused on describing the Public Investment Programs and Projects (PIP) being carried out in the Department of Loreto, diagnosing the current situation of their dissemination, as well as establishing the informational needs in this regard, with a view to defining an effective communication model, while estimating their potential benefits. Consequently, it is necessary to introduce this discussion of the results by addressing the dimensions that define effective communication, namely:

Within the assessment of the context is the reference to the informational needs of the subjects involved, i.e. citizens, political representatives and leaders, interest groups, private organizations, public agencies and others. In its analysis, indicators such as the use or usefulness of the information, manifestation of these needs, content of the information, position in time and its collective or specific nature have been considered.

The predominance of an average rating in 73.6% of those interviewed and a low rating in 26.4% is an indication that, regardless of effectiveness, timeliness or good management of public funds, Loreto's society has not had effective access to information related to such management, to sufficient information to participate, give their opinion, make their own decisions, organize themselves or properly assess (at least) what the State does with the economic resources available to them.

Another dimension of effective communication is related to the elements that define it, namely: sender-producer, receiver-consumer, flow-message, technical orientation-context, channel and effects-feedback (Santos, 2012 and Vera, 2014). Each of these elements are linked in a cyclical and interactive system, playing an essential role in the achievement of the communication objectives.

Considering that the purpose of this research is connected to the construction of an effective communication model for the dissemination of PIPs, it is necessary to move towards a dynamic and well-meshed articulation of these communication elements. According to the results of this study conducted in the Department of Loreto, these elements, as a whole and in their effectiveness, have a medium (69.8%) and low (30.2%) valuation, which constitutes a weakness for the achievement of effective communication.

For its part, the sender-producer, in the research context, is mainly represented by the entities that manage public investment for the development of programs and projects aimed at solving social, economic, technological, cultural, environmental and/or any other kind of problems affecting the community, although citizens also become sender-producers by assuming an active participation in the communicative process.

A third dimension of effective communication has to do with the **benefits** it offers in terms of satisfying informational needs, subject participation and transparency in the management of public investment, a dimension that, as a whole, was rated as average by 52.8% of the respondents and low by 47.2% of the sample. Although in comparison with the previous dimensions, benefits have a better valuation among the lieutenant governors

of the towns that make up the Department of Loreto, it could be said that their rating is still negative, considering that the positive perceptions are not statistically significant.

If one starts from the fact that effective communication entails a set of organizational benefits (such as improved levels of productivity, quality, trust, commitment, creativity and job satisfaction) (Hargie, 2016), if the communication and dissemination policy of the PIPs does not result in an upturn in such levels, it cannot be considered effective.

As for the Public Investment Programs and Projects (PIP) variable, essentially two dimensions have been studied: Phases and Information Dissemination, with the purpose of specifying the way in which the communication strategies implemented by the State entities responsible for the management of these programs and projects address the need to disseminate information in each of their phases: pre-investment, investment and post-investment; as well as the way in which they address the type, format and content of the information, the profile of the consumer (receiver), the media used and the policies of response or treatment of the information.

Based on the data obtained in this research, it has been determined that the lieutenant governors of the towns of the Department of Loreto, for the most part (84.91%), express an average evaluation with respect to the dissemination of information on the phases of the PIPs, which means that there are limitations in the communication processes among the subjects involved.

With regard to the information dissemination dimension linked to the PIPs, which includes indicators such as type and format of information, consumer profile, safety criteria, response policies and information treatment and media or channels used, this is an essential aspect that allows us to know the current status and potential for effective communication in this field.

According to Magdalinou, et al. (2019), in this context, the benefits generated by the knowledge of PIP products by the key audience are expressed in the opportunity for the community to evaluate the relevance and usefulness of the content disseminated. Consequently, the construction of an effective communication model for the dissemination of the PIPs in the Department of Loreto requires the development of mechanisms and strategies that allow timely and sufficient attention to each of the elements of communication.

In this regard, it is necessary to overcome certain barriers that are manifested in an average (62.3%) and low (37.7%) evaluation of this dimension by the lieutenant governors of the towns in this department, which probably indicates that the management of information, channels, parameters and policies are not adapted to the fulfillment of the communication objectives.

Conclusions

The results obtained show significant limitations in terms of communication strategies and, specifically, in terms of the dissemination of Public Investment Programs and Projects (PIPs) at all stages.

The purpose of disseminating this information is to democratize information, promote transparent public management and stimulate the active participation of citizens in decision making and social control, evidently in the Department of Loreto - Peru.

In that sense, we will explain the purposes of dissemination, its limitations and demands:

First purpose: to inform all stakeholders (internal and external). Among the limitations is the fact that information on the PIPs is not effectively distributed to any of the actors involved. Therefore, the vital presence of all the actors involved, both internal and external (members of the community: citizens or organizations, actors outside the community: private organization or public agency, political-community activist, professional) during the process of design, planning, execution and evaluation of the PIPs is required. Consequently, the demand is focused on the implementation of permanent, updated and useful information dissemination strategies that are efficiently distributed among all members of society, all of whom are interested in learning about the PIPs.

Second purpose: To publicize the benefits that the project brings to the community. Here, the limitations are limited to the type of information to be disseminated on the PIPs, including: benefits, results, budget execution and accounts. The statistical analysis carried out in this study shows that in none of these cases are high levels of information dissemination achieved, so that economic, political and social actors have very limited data on the benefits generated through public investment. Consequently, citizen demand emphasizes the need to know the information related to all public management processes, and the community aspires to have certain and reliable knowledge of all stages of the PIPs, from formulation to evaluation: problems to be solved, solutions provided, projects to be developed, investment to be made, probable social and environmental impact, technical aspects, benefits, responsible parties, processes, execution conditions, progress, results, investment execution, among other data.

Third purpose: to generate commitment and participation of stakeholders. With respect to this purpose, both participation and transparency of public investment processes have been evaluated as aspects that have not been effectively stimulated by the current PIP dissemination strategies. The data show that the level of citizen participation in the preparation, execution and control of the PIPs is low, and public access to information on the execution and accountability of the PIPs has been assessed as limited. Therefore, there is a demand for the successful dissemination of the PIPs, which implies promoting the commitment and active participation of citizens and organizations, so it is necessary to stimulate co-responsibility in the decisions and actions aimed at solving the problems of the community, through public investment and, specifically, through the PIPs.

Fourth purpose: to know the expectations of the project on the part of the subjects and/or groups involved. Among the limitations, it has been evidenced that in the dissemination of the PIPs, the feedback process and the satisfaction of needs are negative, since there is a low valuation of the interaction between the PIP formulating and executing units and the communities or organizations in the area of influence, which hinders obtaining a solid and reliable knowledge about the expectations of the subjects and/or groups involved regarding the execution and scope of the projects and programs, which are supposed to be oriented to the solution of common problems. In this sense, it is essential to promote communication strategies that seek permanent feedback between the entities that manage the PIPs and the stakeholders involved, whether they are internal or external to the communities. Systems are needed to assess the opinions of citizens, groups and organizations regarding the purposes, processes, progress and results of the PIPs.

The proposed model focuses mainly on the activation of a Situational Room for Effective Communication (SSCE-PIP), which allows the design and implementation of strategies, mechanisms and instruments for the collection, processing, analysis, storage

and distribution of information related to public investment programs and projects developed in the Department of Loreto. An effective activation and integration between the elements of communication is contemplated through the following processes:

a) The SSCE-PIP is in charge of developing mechanisms to expedite the transmission of information from the PIP management units, considering that they do not need to process and encode contents to disseminate them to the community, being the room in charge of these processes, which represents an empowerment of the sender-producer of communication. In addition, tools are designed and activated to encourage citizens to also act as issuers-producers of the information required to strengthen PIP management processes.

b) As for the receiver-consumer, who is represented in the group of citizens, community organizations, private organizations, political-community activists, professionals, public agencies and others, with whom an interaction is established that becomes progressively more dynamic, since initially the aim is for the community to have access to information on the PIPs, and then, later, to strengthen instruments that allow feedback and active participation by citizens in each of the development phases of the projects and programs.

c) This model promotes the use of a wide diversity of communication channels: traditional media (press, radio and television), digital media (web page, e-mail, social networks, among others), as well as collective, participatory and face-to-face media (community diagnoses and assemblies, work tables, meetings, community diagnoses), as each of them offers potential that should be used to achieve the PIP dissemination objectives.

d) The flow - message, context and code are elements that are strengthened by a systematic, rigorous and professional treatment of the information, since the process of codification of the message is effectively produced, the contextual aspects of the region are considered and the data required by each of the users of the community are selected.

e) The feedback effect is strengthened as a process through the MCE-D-PIP, since first the transmission of information from the PIP management entities to the subjects, groups and organizations of the environment is strengthened, and then strategies and mechanisms are established for the generation of responses and participation on the part of the citizenry.

Consequently, the conclusions are based on the answers to each of the specific hypotheses.

Regarding specific hypothesis 1, there is a lack of human talent, technologies and communication strategies about the PIPs, with little identification and knowledge about the recipients of the information. In addition, there are no formal processes for the collection, processing and selection of the information to be disseminated, resulting in limited contextualization and inadequate coding of the message, with the consequent waste of the diversity of communication channels to disseminate the information.

As for specific hypothesis 2, the information needs of citizens are not known, so the dissemination of information on the PIPs has not been useful to stimulate participation or social control. Stakeholders express their information needs in relation to the PIPs, which is the basis for the construction of a new dissemination model. There are limitations in the information content on the PIPs to which citizens have had access, the present information needs are not effectively met, nor are future information needs projected, with a predominance of the expression of information needs on the PIPs by individual users, and a low expression of collective consumers.

In relation to specific hypothesis 3, that the elements of the communication model should be effectively integrated for the dissemination of public investment programs and projects in the Department of Loreto, Peru, the Model of Effective Communication for the Dissemination of PIPs (MCE-D-PIP) is necessary, whose objective is to establish timely and satisfactory channels of interaction between citizens and public management entities, favoring the construction of a more positive image on the part of citizens, encouraging greater social control of public investment, and fostering mechanisms for active participation and commitment of the subjects, groups and/or organizations involved.

Regarding specific hypothesis 4, the PIPs have their origin in the prioritization and formulation of problems - needs of the surrounding communities. There is little information on the pre-investment phase that is disseminated to the public. In addition, information on the investment phase is not timely, complete or dynamic, while the dissemination of the PIPs and their post-investment phase does not stimulate social assessment of their results and effects.

Regarding specific hypothesis 5, with the implementation of the proposed Effective Communication Model for the Dissemination of PIPs (MCE-D-PIP), benefits are projected at the level of both senders and receivers.

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COMPARATIVE STUDY OF FREE SOFTWARE AND FREEWARE FOR VIDEO EDITING
ESTUDIO COMPARATIVO DE SOFTWARE LIBRES Y SOFTWARE GRATUITOS PARA LA EDICIÓN DE VIDEO

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ABSTRACT	
	A comparative study of video editing software was carried out, with the premise that they were free software or freeware. A Benchmarking study was made, taking as reference those considered up to now as the best of its kind, Da Vinci Resolve and Hitfilm Express. To select the rest of the software, an investigation was made in the literature and the Internet. When software with potential was found, we passed it through selection filters, which allowed us to reach the programs we were looking for for our research, these were Kdenlive and Shotcut. We were subjecting the selected programs, along with the reference programs, to different questionnaires and tests. Each program obtained a score, and the comparative study was made. The results indicated that, in general terms, free software was on par with the referents, even in some items, such as formats and codecs, higher. We conclude that, with the particularities of each program, which privilege some features over others, any of the four programs that we finally analyzed is worthy of being considered an excellent video editor. In addition, software can be considered cultural assets of this new digital age. They are part of the new media, which must be observed with new paradigms. The current of free software could be taken as one of the new communication paradigms to analyze the new reality.
RESUMEN	
	Se realizó un estudio comparativo de software de edición de video, con la premisa de que fueran software libres o software gratuitos. Se hizo un estudio de Benchmarking, tomando como referencia los considerados hasta el momento como los mejores de su clase, Da Vinci Resolve y Hitfilm Express. Para seleccionar al resto de los software se hizo una investigación en bibliografía e Internet. Cuando se encontraron software con potencialidad, los pasamos por filtros de selección, que nos permitieron llegar a los programas que estábamos buscando para nuestra investigación, estos fueron Kdenlive y Shotcut. Sometimos los programas seleccionados, junto a los de referencia, a diferentes cuestionarios y test. Cada programa obtuvo un puntaje, y se hizo el estudio comparativo. Los resultados indicaron que, en términos generales, los software libres estaban a la par de los referentes, incluso en algunos ítems, como formatos y

códecs, por encima. Concluimos que, con las particularidades de cada programa, que privilegian algunas características por sobre otras, cualquiera de los cuatro programas que finalmente analizamos es digno de considerárselo un excelente editor de video. Además, los software pueden considerarse bienes culturales de esta nueva era digital. Forman parte de los nuevos medios de comunicación, los cuales se deben observar con nuevos paradigmas. La corriente del software libre podría tomarse como uno de los nuevos paradigmas de Comunicación para analizar la nueva realidad.

Introduction

The problem that was addressed was to have the possibility of editing video, with free or open source software, without having to pay for expensive licenses. Whether in the educational or professional field. What we did was to determine the most appropriate software and draw conclusions according to the results of the comparative study. Many times for editing there is an attachment to certain proprietary software. This study aims to provide a quality solution, both professionally and academically, to manage different alternatives. I understand that in editing the most important thing is the theory and its practical application, at the service of what is being told.

With the expansion of ICTs and the reduction in the cost of filming equipment, we are facing the democratization of audiovisual production. This research dealt with access to media at the post-production stage. New technologies have made it possible to move from the consumer to the prosumer, who creates content. But is all creation good?

The overall objective of the research was to compare the best free video editing software with the best free ones. To this end, a series of specific objectives were achieved. The first specific objective was to define essential concepts and categories of analysis such as: assembly and editing, free software, free software, licenses, copyrights, benchmarking, new communication paradigms, and variables.

The second specific objective was to identify free video editing software, and free software, valid for the Windows operating system. Hitfilm and Da Vinci Resolve have freeware versions, proprietary programs made available to users at no cost. Their free versions are very good editors and the ones we took as a reference for being considered, prior to the research, as the best of their kind. On the other hand, among the free software, some with potential were selected.

For the third specific objective, filters were used to find the most appropriate software for professional editing, these were:

1. Work and export in Full HD quality, 1920 x 1080 pixels.
2. When working in the program, there are no limitations in the basic or advanced functions necessary for editing, and to overcome them, it is necessary to access the paid version of the program.
3. The professional environment or interface was another pre-selection criterion.
4. The high learning curve of the software was another reason to discard it.
5. We added a fifth filter of professional video and sound tools.

The ones that passed these filters, out of all the selected software, were Shotcut and Kdenlive. In the fourth specific objective, the selected software was evaluated, analyzed and compared. In the fifth specific objective, the selected software was classified, according to its characteristics and utilities, for the audiovisual editing and post-production stage.

Editing and Editing

With technological advances, video cameras appear, and a new concept and way of proceeding is introduced, the film is no longer mounted one on top of the other, but edited. The analog linear video editing island worked by playing back the contents of a magnetic tape cassette and recording it onto another cassette. While a video player played back what was filmed, a video recorder recorded the selected fragment. The first was the player, which played back the content that had been shot, the second was the recorder, which recorded the selected shot.

Taking this analogical model of operation, the interface and distribution of the elements in the digital computer editors is developed, in which the order of the chosen

planes can be altered very easily, this is called non-linear editing. Murch (2003) said in 1995 that future home computers will be the envy of the professionals of their time because they will be able to do everything, and he was right. Today computers are much more powerful than the old analog editing islands.

Operating Systems and Software

Operating systems allow the user to communicate with the computer. Windows or Linux operating systems can be installed on any computer. Linux is free and Windows is paid. Macintosh has its own Mac OS operating system. The research was conducted on the Windows operating system. For further research purposes, we also indicate whether the analyzed programs work on the other operating systems.

Proprietary software is software that you must pay to use. In this study we will not deal with this type of software. Cascante (2013) mentions that in the case of proprietary software there is no access to the software algorithms, its operation is unknown and therefore it can be potentially unsafe for the user. He also mentions that there is an oligopoly of software companies and its high cost makes it difficult for developing countries to afford.

Freeware belongs to private companies that make it available to the public for use at no cost. These programs keep the source code private.

It should be noted that free software is not the same as open source software. Richard Stallman referent and promoter of the Free Software movement mentions that free software to be free must have 4 fundamental truths "we refer to the freedom of users to run, copy, distribute, study, change and improve the software". (Stallman, 2004, p. 45)

1-Freedom to run the program.

2-Freedom to study and adapt the program, access to the source code is essential.

3-Freedom to distribute copies and help.

4-Freedom to improve the program and then publish it for the good of the whole community.

A fundamental concept in free software is that it is not a matter of free of charge, it is a matter of freedom. Stallman (2004) adds that it is good not to depend on large software corporations in order to be free. And that free software is becoming more and more accepted. In addition, the common user can hire a programmer to improve the software, fix bugs or add functionality. Cascante (2013) mentions that NASA, Google and Amazon use free software, and movies such as Avatar, Toy Story, Shrek were also made with free software.

Copyrights

Copyright is one of the rights in the Universal Declaration of Human Rights. On the official website of the World Intellectual Property Organization we see that:

> In legal terminology, the term "copyright" is used to describe the rights of creators over their literary and artistic works. Works that lend themselves to copyright protection range from books, music, paintings, sculpture and films to computer programs, databases, advertisements, maps and technical drawings. (WIPO, 2022)

The rights of literary works, films and computer programs, among others, are protected. A script, an edited movie, and editing programs can be protected. The economic and moral rights of the work are protected. Free and open source software allows access to media without violating copyright issues. The right to education is a human right, so I think it is very appropriate to apply free software in education, to guarantee access to computer tools.

Piracy

Piracy touches on several issues: the digital divide, access to media, democratization, copyright and intellectual property, among others. This work proposes an alternative to piracy, using legal software. Free software depends on the goodwill of the private company, while free software emancipates even more because it has a collaborative and solidary spirit. With these two types of software there are no problems of illegality in case of not having the license.

Licenses

Licenses are one of the variables to be studied, the subject is complex since there are several types of licenses. The license is a contract in which the user is allowed to use the software; and to modify, copy and distribute in the case of free licenses. In our work we will see which type of license each selected program belongs to. On the WIPO website (2022) we see that: "For the purposes of copyright, computer programs and other types of software are *software* are considered literary works." The types of software licenses are basically divided into two parts, on the one hand the licenses that belong to proprietary software and on the other hand those that belong to free software.

In Bugna and Friss's work by Kereki (2017) we see that proprietary-type licenses include all types of nonfree licenses. Within the privative ones in our work we are interested in the *Freeware* category, it is the software that belongs to companies that make it available to the user for its use. But it cannot be modified, since its source code is not available.

On the other hand Moreno (2015) points out that *free software* gives freedom to the user, because by leaving the code open source it is shared and collaborated with others. Free software goes beyond the fact that it is free, it promotes values of freedom and cooperation. "When we talk about free software, we are referring to freedom, not price." (Stallman, p. 206) Copyrighted software places limits on the user in that the user cannot copy, distribute or modify the program.

But even copyleft is guaranteed through copyright. Therefore, the copyright is very important, since it gives guarantees to the copyleft that the conditions of the license are fulfilled. Copyleft is registered with copyright, allowing you to copy, distribute, or modify, but establishing as a condition that when you modify the program you are obliged to keep the result also free, and you can copy, distribute and modify it. GPL (GNU General Public License or GPL-GNU) was created by the Free Software Foundation. "We protect your rights through a combination of two measures: (1) we place the software under copyright and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the software." (Stallman, p.207)

Comparative Study. Benchmarking

Benchmarking is a process of studying the best practices and/or products of an industry, internal or external, in order to implement and incorporate improvements, adapting them to the qualities of the organization or product itself. Of the phases of the benchmarking method proposed by Robert Camp, a reference on the subject, (Hernández and Cano, 2017), we use only the first two phases, Planning and Analysis. Plan what we are going to study, how we are going to do it and how we are going to collect the data. We then analyze these results to reach conclusions.

Spendolini (1992) in his text gives a range of possibilities to define Benchmarking, as there are many opinions in the discipline. Using these possibilities, and adapting them to our study, the definition we use is the following: "It is an analytical and continuous process of comparing the products, services and work processes of Companies or Organizations that are recognized as best in class for the purpose of organizational

benchmarking." HitFilm Express and Da Vinci Resolve, which have free versions, are the benchmark or model to follow. These programs were chosen as the models to be followed since, prior to this research, they were used in a satisfactory manner, obtaining quality audiovisual products. The same did not happen with free software, which prior to this research presented some inconveniences in some functions.

New Communication Paradigms

The Internet and new technologies have been key to the development of a new reality, which must be reviewed with new paradigms. The old paradigms are obsolete. Today, the average user can produce content for networks and publish it to reach many people. Unthinkable in the classic paradigms of communication, where media communication was unidirectional. Understanding this new reality requires new paradigms. Eduardo Ruiz mentions in his work on Serrano and Barbero, and the theory of mediations that: "Every social process, especially communication, is not linear or direct, it is mediated" (Ruiz, 2004).

In the case of new media, communication is computer-mediated. A standard user can edit audiovisual material and upload it to the network. Today the network is full of audiovisual material created by users, with different levels of technical quality and content. Gómez (2017) says that the personal computer appears as a protagonist in reading and audiovisual creation, art, music, video, video games and animation. Mascarell (2016) comments that cell phones have democratized the world of audiovisual production, more than video cameras did. With the cell phone you can obtain material to be edited later on a laptop with better editing options than the cell phone.

The theories of Emirec and Prosumers are two opposing positions, Aparici and García Marín (2018) comment that they are usually taken as synonyms, but they are opposite concepts. The Prosumer is shown as an alienated and functional subject to the system that produces free content in his free time. While the Emirec, (sender and receiver), is an empowered subject who has a critical eye. Emirec communicates from a position of freedom.

Scolari (2017) manifests the need to observe the reality of communication and new media with new paradigms. He alludes that some of the known paradigms are already obsolete, and I agree with his view. He names Lev Manovich, which I took as a theoretical framework, because it provides an important perspective for the present research, and it fits like a glove.

Lev Manovich

In his book "Software takes over", Manovich (2008) mentions the importance of software in today's society, he says that it is present in almost everything, and there is a gear to make technology and devices compatible with each other. However, the software remains invisible to communication theorists. There is talk of the Internet and new media, but the software that underlies all these new paradigms has not been paid attention to.

He also points out that Open Source movements are the exception, this movement has stopped to think about this and copyright issues. To which I add that there is also the Free Software movement, which is different from the Open Source movement. Manovich (2008) indicates that in order to study new media, one must study computers and software, and learn about the reality within them. It uses the term cultural software to refer to content creation and distribution software. An editing software would fall into this category of cultural software.

He adds that contemporary society can be categorized as a software society, where software takes a central role in culture. He states that reading the source code of the

program does not help, i.e. it is not about studying the software from a computer science point of view or the way the code is written. The free software current expresses another idea in this regard. For the free software movement it is essential to have access to the source code as it gives freedom to the user. It is good to see two different, and opposing, points of view on the same issue.

In another of his books, "The Language of New Media", Manovich (2006), says that new media, Internet, websites, multimedia or video games, have the computer in common. It is also used as a tool for the production, distribution and exhibition of content. Today, communication is mediated by the computer. Today's media are reduced to numerical data, zeros and ones, which are processed by the computer, be it graphics, sound, videos, texts, etc. By means of mathematical calculations and algorithms, noise can be removed from a photograph. He stresses that new media require a new stage in theory. To understand them, one must pay attention to computer science, and move from media theory to software theory.

José Luis Orihuela

Orihuela (2002) in his article refers to the fact that the Internet has overturned the paradigms that previously helped us to understand the mass media. He systematizes ten new paradigms with the changes that emerge in the network and give rise to what he calls e-communication. His thinking is in line with what Scolari mentions about the need for new paradigms to interpret the current situation. Due to the Internet and new technologies, society has been changing. Although Orihuela never mentions software, these new paradigms allow us to place ourselves in the context of this new reality. The Internet brings together all the media, it is a new medium, and it made the old media redefine their identity. Internet with its multimedia format claims audiovisual production. The videos are present on the web, film, television, press, radio, forums and social networks. To produce audiovisual content there are the software that we will analyze.

Richard Stallman

If I consider Lev Manovich's point, to see software as a new medium, then I can take Stallman's free software current as a current or paradigm within communication. Free software does not only refer to a question of price or gratuity, but of freedom, and that possibility of emancipation is what, in my opinion, determines the free software current as a paradigm of communication.

Free software is respectful of copyright issues. It promotes democratization, values of solidarity and access to new media, mainly in developing countries. Undoubtedly, free software has several advantages over freeware. When free software reaches a high level of quality, it benefits many people, it remains as a collective good and does not depend on any particular software.

Variables

In the study we looked at a number of variables that we analyzed to compare the software, here are some of them: *Resolution.* The most commonly used are Full HD, 4K and 8K. Full HD was the reference we took. *Codecs.* Codecs *(video compression)* are programs for encoding and decoding audio and video files to reduce their size. Codecs use algorithms to compress digital video and audio information, reducing their size to facilitate transmission and storage. Examples of codecs: H264, MPEG4, WMV, H265.

Formats. The amount of information is determined by the resolution, i.e. the horizontal and vertical dimensions expressed in pixels, e.g. Full HD (1920 x 1080 px) and the number of frames per second, which can be 24, 25, 30 or 60. When we talk about Formats we refer to container formats in addition to audio and video file codecs. We could say that the format is the storage "system" plus the compression codecs used. Examples

of formats: MP4, MOV, WMV, AVI, MKW.

Tool pack. There are certain classic tools that allow us to carry out the editing task: cut, copy and paste, select clips, group video clips. *Sound.* The sound is very important, as well as the number of tracks available in the program, volume variation, nodes and sound effects. Being able to synchronize the video shot with a sound shot when done on different devices. *Titles.* Possibilities to add titles and credits to the video. Ease or difficulty, and the options available. *Export.* Exporting is related to the resolution, container formats and codecs of the videos. *Color and gloss correction.* It is an important function for the final aesthetics of the work. Color in film is additive and is formed by light. In this case it is formed by pixels. Technological advances make it possible to retouch the image. Manovich (2006) points out that these corrections are provided by a set of algorithms.

Method

Research design

The methodology used was *mixed*, one part quantified on a numerical scale and the other part qualitative. The research design was *descriptive*, properties and characteristics of the software were specified, and the data obtained were quantified in graphs for comparison. Information was taken at a certain point in time. It was non-experimental, the phenomena were observed in their natural environment and then analyzed. The research cut was *cross-sectional*. Although a previous experience was taken into account, which was an orienting antecedent that gave a longitudinal touch to some assessments.

Population and Sample

The population studied was free or free video editing software on the Windows operating system. It was a census since there was no sample. The idea was to see all the programs that met these requirements in order to select the best ones. Based on Internet research, we searched for possible software. All free and open source editing programs were considered.

Measuring Instruments and Techniques

The test, through editing exercises, with a questionnaire and scoring, was the main tool to obtain data from each program. A comparative benchmarking study was then carried out, taking as a reference the programs considered to be the best so far. Each data collection instrument was designed to measure the editing variables and then compare the software.

Procedures

The first part of the research, to access these software, was through the little existing bibliography and some Internet sites. At the time I visited several, one of them was ABC do Video, by Lucas Conde, from which I took into consideration a small pdf publication "30 ferramentas gratuitas para la producao do vídeo", which served me as a reference. There he synthesizes several programs, which I considered.

With the third specific objective, to select the most appropriate software for editing, in mind. I considered different software and following selection criteria I arrived at the software to be analyzed. On the one hand, there were the free software that private companies made available and were a priori the software with the most potential, which

we took as a reference. From Hitfilm Express I used version 18. In the case of Da Vinci I used version 15, a later version did not work on my computer, seventh generation i5, with solid disk and Nvidia GeForce GTX card.

The free versions of Hitfilm and Da Vinci Resolve have some limitations compared to their paid versions, but they are enough to consider them excellent editors, that's why I considered them as the models to follow. On the other hand there was the free software, which we studied to see if it could come close to or match this freeware. The programs finally selected, after overcoming the filters described in the introduction and which were on an equal footing in terms of their operating structure as video editors, were Kdenlive and Shotcut, in addition to those already mentioned.

The analysis was carried out with measurement and testing tools, questionnaires and tests on the selected programs, and a comparative study. Establishing scores and determining the possibilities of each one. Several tests were performed to measure program variables: resolution, user interface, video and sound toolkit, settings, nodes, learning difficulty, titles and credits, color, formats and codecs. Below are the comparative results of measuring these variables.
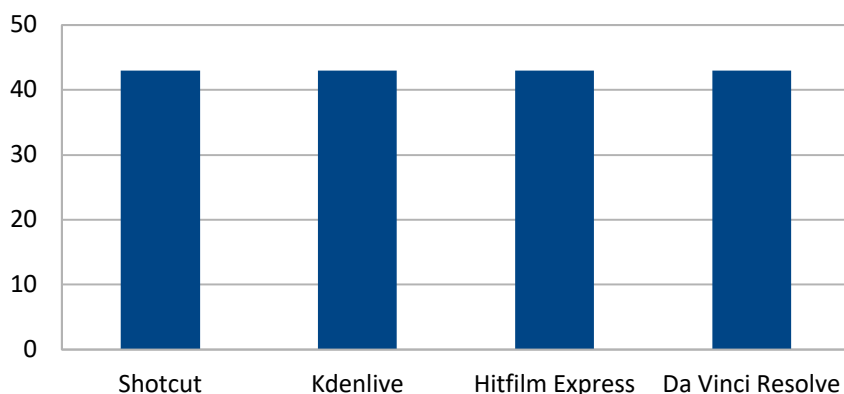
Results

We found only two license types gpl-gnu with copyleft and freeware. All the programs are on a web site and have manual or video tutorials, which makes it easy to learn.

Result Resolution and Video Tools
All programs import and export in Full HD and 4K. All four programs proved to be very stable and worked very well without any problems. The video editing tools of the 4 programs are very good. In Shotcut, to group clips, you have to do it by pressing the Control key and selecting the different clips. In Kdenlive to group clips you must press the Shift key plus a mouse click.

Figure 1
Result Test 1

Sound Result

Sound is a very important resource for audiovisual language; it is a variable that must be considered for editing.
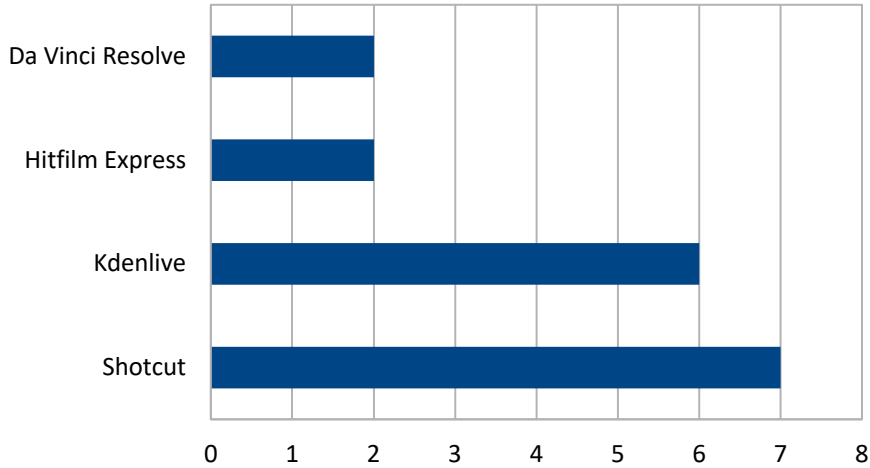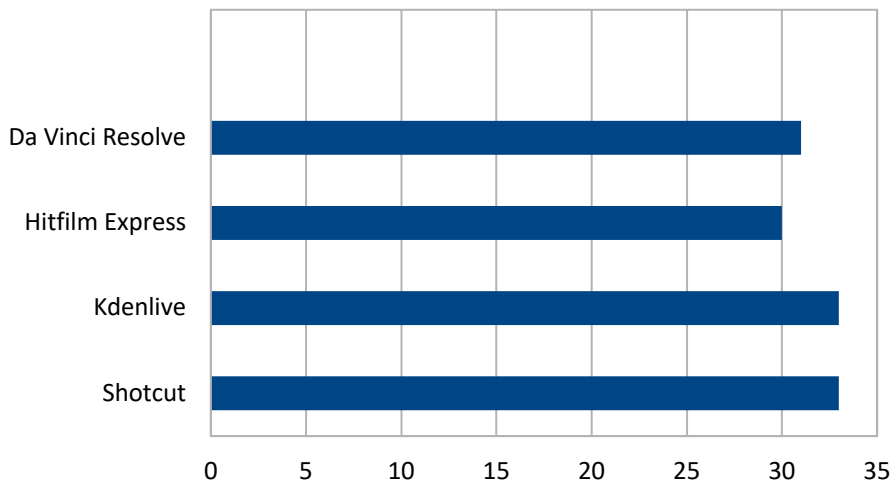
Figure 2
Sound export result

Figure 3
Sound test result

The program that has the most sound codecs is Shotcut followed by Kdenlive, both far behind the other programs. When we compare the sound tools in total it is very even, but the highest score was obtained by the free software Shotcut and Kdenlive.

When we take the result of the codecs from the graph it is even, but the tendency is towards freeware. Formats and codecs make the difference in this test. Free software is ahead in codecs and on par in all other tools, just below Da Vinci and Hitfilm.

Result Titles and credits.

64

In Shotcut, titles are made using filters and minimal learning is required. Hitfilm is not intuitive either, it requires minimal learning and watching a tutorial.

Figure 4
Result of titles and credits
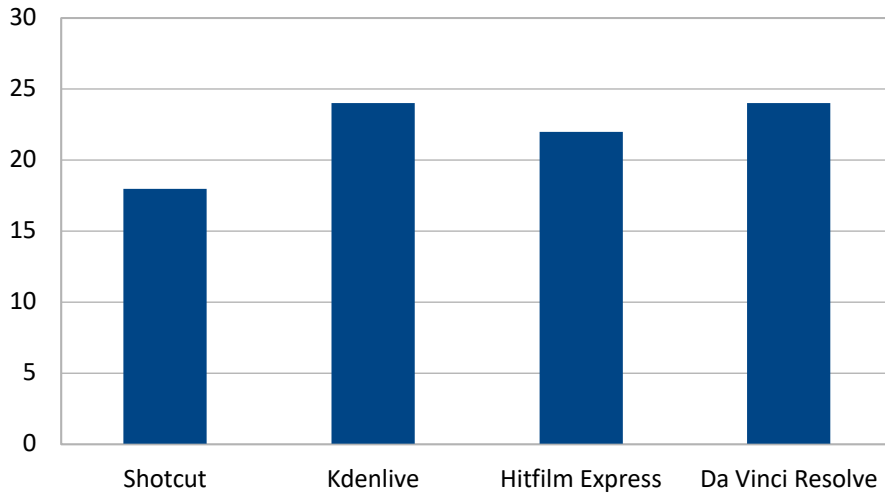
Kdenlive and Da Vinci are the two programs that excel in this test, both of which are intuitive and excellent.
Result Color correction and effects.
The programs have image adjustments, color and image effects, they are excellent in all questionnaires. Therefore, they obtain the maximum score in all items.

Figure 5
Adjustment and Color Result
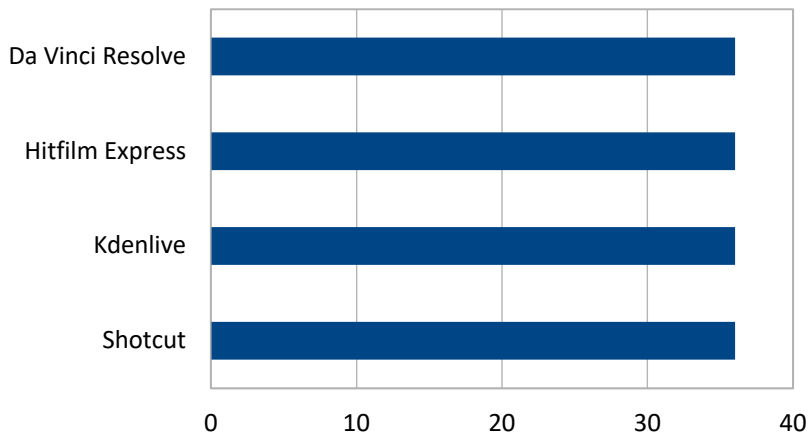
Although Da Vinci is the benchmark program for color post-production. With all programs you can make excellent color, tonality, brightness and some effect adjustments. With nuances of difference, characteristic of each program, they all obtained the maximum score in the questionnaire. With all programs you can do a decent job of color post-production.

Result Audio Synchronization

With Kdenlive, Hitfilm and Da Vinci you can synchronize sound automatically. That is, a video shot with a sound shot, recorded with different devices. In the case of Shotcut this is not possible and must be done manually. In Da Vinci it is very easy to do this by linking the clips and clicking the right mouse button to go to the *waveform* function. In Hitfilm this is done by selecting the clips in question and with the right mouse button selecting *Merge* creates a new clip with synchronized audio. In Kdenlive it is also simple by right-clicking on an audio reference and then synchronizing the clip to that reference.

Figure 6
Audio synchronization result
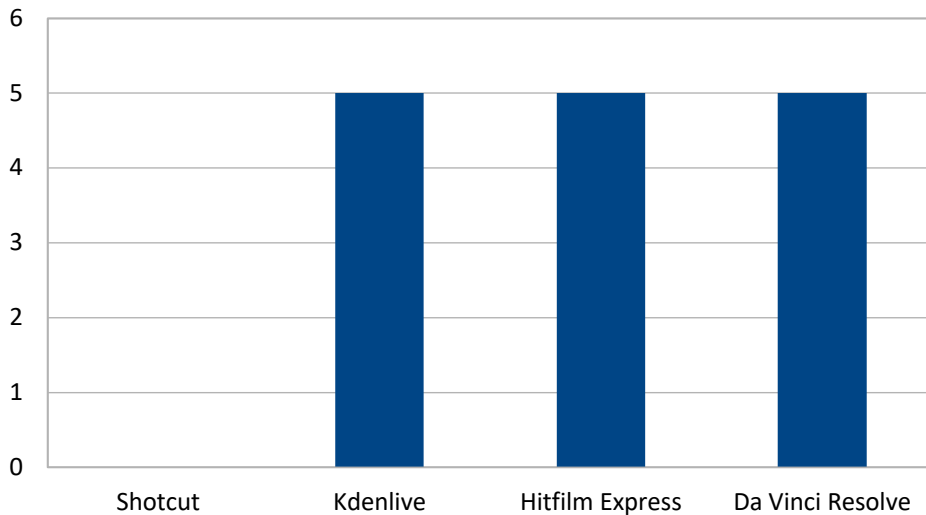
Result Video Export Formats and Codecs

Figure 7
Result of Video Export Formats

Figure 8
Result Video export codecs

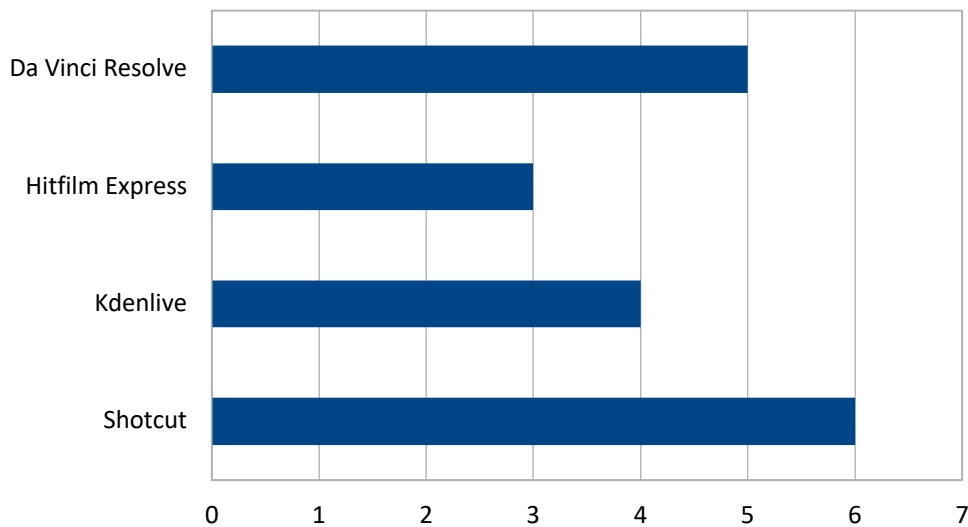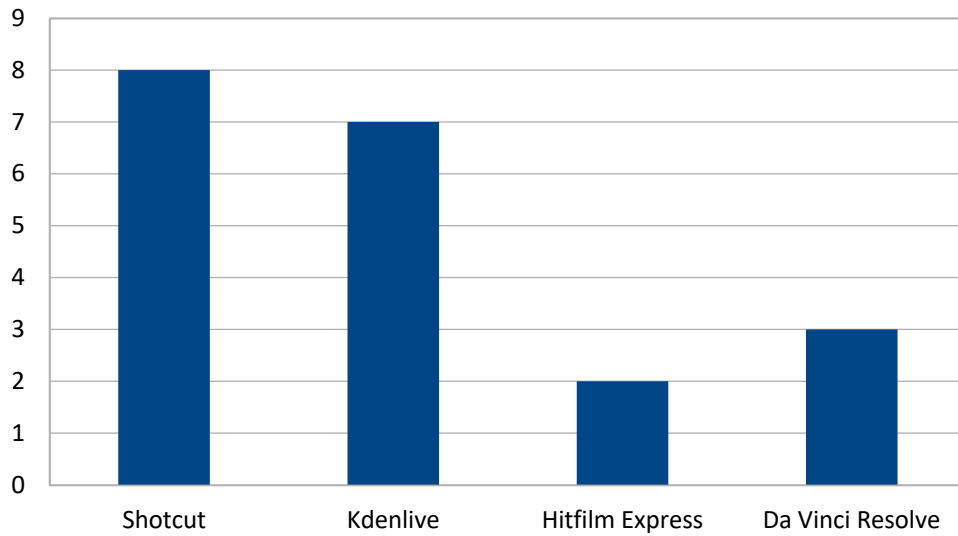### Formats and Codecs Test Result

A test was performed with a package of 6 files with various video and sound formats and codecs. We tested in each program if they could be imported correctly.

Figure 9
Format and codec test results
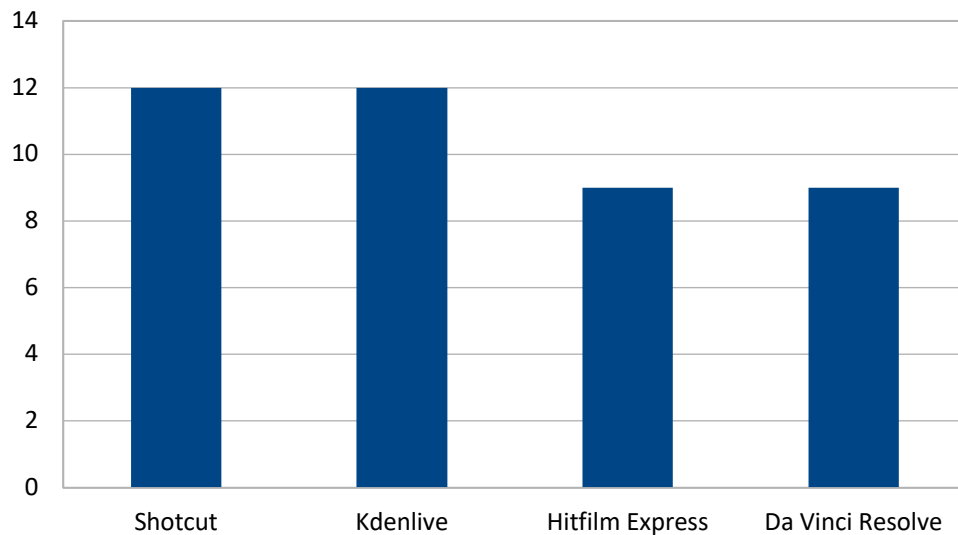
From these tests we conclude that free software is more generous in terms of format and codec compatibility, and processes and exports more of them.

Table 1

Total comparative score

Test	Shotcut	Kdenlive	Hitfilm	Da Vinci
Video Resolution and Tools	43	43	43	43
Sound	26	27	28	29
Titles	18	24	22	24
Adjustments, color and effects	36	36	36	36
Synchronize AV	0	5	5	5
Export formats and codecs	14	11	5	8
Format and Codec Testing	12	12	9	9
Total score	**149**	**158**	**148**	**154**

Figure 10

Total score, comparative graph 1

Note: is ⁣⁣ Sound
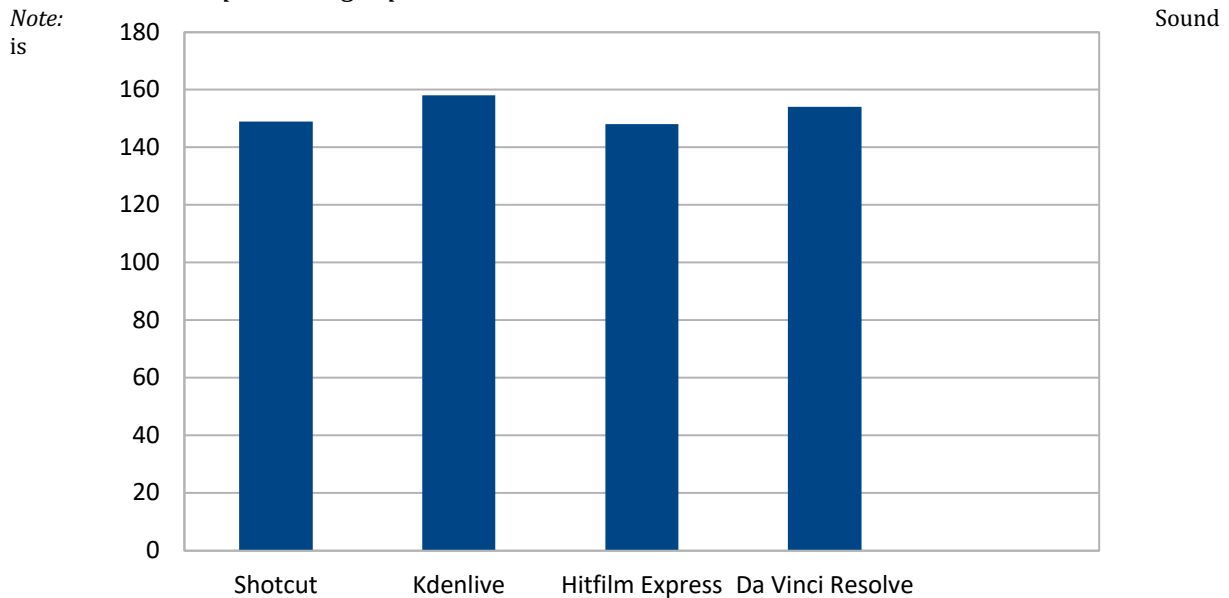
scored without codecs so as not to skew the result. Therefore, the format and codec test was added, which is more accurate.

Table 2

Comparison of total score without considering formats and codecs

	Shotcut	Kdenlive	Hitfilm	Da Vinci
Total score without test, format and codec test.	**123**	**135**	**134**	**137**

Figure 11
Scoring without Formats and Codecs

Without considering formats and codecs, in which free software has an advantage, we can observe that the graphs also show that the programs are very similar in terms of the results obtained. Allowing for a margin of error, the software would still continue with an even score.

Discussion and conclusions

Discussion

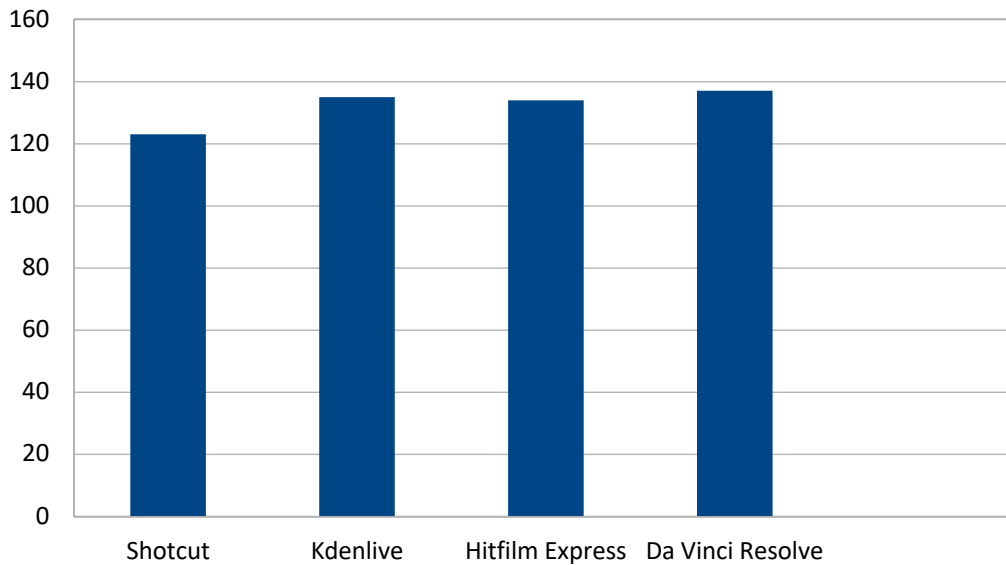Shotcut appears as the most complete program in formats and codecs. It can be further improved, and has the advantage that it does not require as many system resources. Kdenlive is an evenly balanced program in all aspects, which has improved a lot in its Windows version since the last time I worked with it. It does not require as many system resources. Hitfilm features special effects which require a learning curve, and is even in the rest of the video editing functions, highly recommended. It does not require as many system resources. Da Vinci Resolve excels in color, but it is also an excellent full-featured editor. As a disadvantage we see that its latest versions require powerful computers.

According to the results of the comparative study score, we see that there is a great parity among the four programs finally selected. All four of the software seen here are a very good choice for professional editors. The content that is made with these software is independent of them, the vision of prosumers or emirecs that we set out in the Theoretical Framework serves to contextualize. The same happens in the case of Orihuela's paradigms that contextualize the moment, added to the fact that all these programs are downloaded thanks to the Internet.

The programs analyzed are cultural software that also have a symbolic value. These editing programs are cultural icons, each with its own particular characteristics. Due to the lack of new paradigms to study the new phenomena of Communication, from my point of view, and following Manovich's line of thought, the free software current can be considered as a new paradigm within Communication.

Is it necessary to have access to the source code? For someone who is not a programmer it would not be as important to access the source code, but it does provide more transparency to the program. Manovich mentions that it is not necessary to study the program from a computer science point of view, but rather as a cultural asset. You do not need to know the source code to operate the software and edit it. To adapt or improve the program it is necessary to access the source code. Free software gives more access to the media, mainly in third world countries where there is more economic inequality and it is often difficult to access the costs of proprietary software.

Free software and freeware can be considered as an alternative to access new media and content production in a more democratic way, reducing the digital divide. Being in the public domain, free software has the advantage over freeware that it does not depend on the good will of the companies, in case they change their mind and the software ceases to be free. Free software goes a step further in terms of freedom and humanity, and is part of the common good.

It is very good to have free programs that are up to the level of the paid ones, for editing. It is also very noble that two companies have made two excellent editors available in free versions. Fernández Gómez and Moreno mention similar concepts, that free software is not perennial since it does not depend on the company that develops the software, in case it stops providing support or abandons it. But as long as they can still be used, it's a very good thing. These are excellent options available thanks to the kindness of the companies. On the web page of the programs it is mentioned that it is with the purpose of providing access to creative people and that the use of software is not a limitation for a better and inclusive world, there is also an ideal behind these software.

Fernández Gómez mentions in his 2016 paper that the situation of free software is changing as it has already evolved a lot, but nevertheless lacks the tools to do professional color grading. Six years later in 2022, with Shotcut or Kdenlive you can currently do a more than decent color grading. Free software is already on a par with freeware from private companies. The result showed a surprising parity, even putting free software above free software in some functions. In 2018, this was not the case, freeware comparatively was ahead of free software.

Conclusions

1-Free software can be considered as a theory on the Media. The Internet and computers are a new means of communication, and the free software philosophy can be taken as a new communication paradigm.

2-The free video editing software we looked at is on par with the freeware analyzed. Da Vinci Resolve and Hitfilm Express were the ones that a priori appeared a step above as editors and referents, but according to the score obtained, this is not so much the case anymore.

3-A complementary toolkit can be formed with the four software analyzed. Depending on the technical possibilities and creative needs, each user may opt for one or the other alternative or have a combo with all four programs. Both free software and freeware are an excellent alternative to piracy.

Da Vinci Resolve appeared a priori as the best in class in terms of editing, color and effects capabilities. It remains a benchmark, but requires the use of powerful equipment and state-of-the-art graphics cards. However, Hitfilm, Kdenlive and Shotcut can be used with very good results on less powerful equipment. Shotcut and Kdenlive are very strong programs in terms of formats and codecs.

4-Da Vinci Resolve, Kdenlive and Shotcut work on all three operating systems: Windows, Linux and Macintosh. Hitfilm works in two: Windows and Macintosh.

5-Free software is different from free software. The freeware analyzed are excellent tools that can be complemented with those of free software. However, the philosophy of free software goes a step further, since it seeks emancipation, and is a common good that benefits humanity through the possibility of its use without limitations.

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SACRED? FAMILY: THE DESACRALIZATION OF MOTHERHOOD IN THE NETFLIX SERIES
¿SAGRADA? FAMILIA: LA DESACRALIZACIÓN DE LA MATERNIDAD EN LA SERIE DE NETFLIX

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	ABSTRACT
Key words: television series, spanish series, gender, family, motherhood.	La representación de las madres en el cine y las series de televisión españolas se ha concebido sobre la idea de la mujer perfecta y, por ende, madre ideal, lo que provoca aún más presión sobre los personajes femeninos. El presente artículo tiene como objetivo estudiar las maternidades de la serie *Sagrada Familia* (Netflix, 2022-2023) con objeto de comprobar si estas mujeres se alejan de la idealización de la imagen atribuida a las madres. Con un enfoque cualitativo-descriptivo se analizan los siete personajes cuyas tramas giran sobre el cuestionamiento de la maternidad biológica o la representación de familias con madres disfóricas, entre otras. Partiendo de los estudios de género y el análisis de personajes, esta investigación analiza a estas madres desde diferentes puntos de vista como el tipo de maternidad que ejerce, cómo desarrolla la protección hacia sus hijos o su desarrollo laboral y vida sentimental, que tradicionalmente son dos aspectos que se utilizan para limitar a los personajes femeninos. Así, el presente estudio determina cómo *Sagrada Familia* contribuye a mostrar otro tipo de mujeres desacralizando así el concepto de maternidad.
	RESUMEN
Palabras clave: series de televisión, series españolas, género, familia, maternidad.	La representación de las madres en el cine y las series de televisión españolas se ha concebido sobre la idea de la mujer perfecta y, por ende, madre ideal, lo que provoca aún más presión sobre los personajes femeninos. El presente artículo tiene como objetivo estudiar las maternidades de la serie *Sagrada Familia* (Netflix, 2022-2023) con objeto de comprobar si estas mujeres se alejan de la idealización de la imagen atribuida a las madres. Con un enfoque cualitativo-descriptivo se analizan los siete personajes cuyas tramas giran sobre el cuestionamiento de la maternidad biológica o la representación de familias con madres disfóricas, entre otras. Partiendo de los estudios de género y el análisis de personajes, esta investigación analiza a estas madres desde diferentes puntos de vista como el tipo de maternidad que ejerce, cómo desarrolla la protección hacia sus hijos o su desarrollo laboral y vida sentimental, que tradicionalmente son dos aspectos que se utilizan para limitar a los personajes femeninos. Así, el presente estudio determina cómo

Sagrada Familia contribuye a mostrar otro tipo de mujeres desacralizando así el concepto de maternidad.

Introduction

The study of the representation of female characters in film and television must inevitably consider the question of motherhood, whether by presence or absence, since the idea that women have an obligation to the concept of their possible progeny is extraordinarily rooted in Western culture.

The term *new momism* (Douglas and Michaels, 2004) was coined to refer to these representations of deified, romanticized motherhood, based on the fantasy perfection of these characters and is built on the locution of intensive motherhood, characterized by absolute dedication to the care of children, especially putting them before the personal and professional spheres (Hays, 1996). For his part, Kaplan (2000) speaks in taxonomic terms, where the representation of the mother is reduced to the self-sacrificing as opposed to the selfish, that is, the good as the antithesis of the bad.

In 2008, Guarinos defined the most common stereotypes of women in cinema and, of the twenty she detailed, six of them are related to motherhood, namely: *mater amabilis* (happy housewife who takes care of her children and husband); *mater dolorosa* (suffers because her children are not happy); castrating mother (with strict values who restricts the freedom of her offspring); stepmother (similar to the previous one, but with non-biological children); monster mother and childless mother, the latter unbalanced by her infertility. However, an update of this typology carried out by Pacheco-Jiménez (2022) warns that Spanish fiction develops another stereotypical mother who, under the term deranged mother, endangers her children due to some kind of mental disorder and points out that this type of characters are of special relevance in psychological *thrillers* or horror films or series. In this sense, (Arnold, 2013; O'Donohoe, 2006; McRobbie, 2009, Lacalle, 2022) also point out that the imperfections and moral ambiguity of the characters on which *thrillers* are built are the perfect ground for demystifying the concept of ideal motherhood. However, two of them are the same stereotype, but in a different context - the castrating mother and stepmother - and the third, the childless mother, actually refers to the disorder caused by the impossibility of motherhood for these characters; for its part, the addition of Pacheco-Jiménez already points to a group of characters that, although stereotypical, do not sacralize the idea of the good mother.

The imperfect motherhood that Lacalle outlines has a certain tendency to be related to the professional development of the female character, frequently associating ambition -represented as something excessive, sometimes irrational- with the absent mother as the main axis of both the plot and the traumas of her descendants. This eagerness to stand out in the workplace is based on the concept of *can-do girls* (Harrys, 2004), young women whose main objective is self-improvement, very much in line with the stereotype of a female character capable of anything (Wood, 2010; Lacalle and Sánchez, 2015). This imposition for this type of women represented as mothers comes with the requirement to stand out professionally, but also with the requirement to be present -sometimes alone- in the upbringing of their children, which causes a double imposition on the female characters that can then be apprehended as a model of social behavior. Moreover, it is striking that independent women are faced with the dilemma that their only possible choice to feel like women is to be mothers (Douglas and Michaels, 2004), so that this constraint is more than often inevitable.

Representation in fiction series differs considerably from cinematographic models due to two fundamental issues: on the one hand, series tend to be closer to current events, to exhibit other types of models and, on the other hand, but related to the above, television series can afford to delve deeper into their characters, building complex actors, whose roles allow them to actively intervene in their plots, if not build them, in Casetti and

Dichio's terminology (1991). In this regard, Press (2018) pronounces when she talks about the relationship between the proliferation of these multidimensional female characters and the greater participation of female creators in the contents and who, by the way, also kindly specifies that the values in criminal families -and, therefore, in *thrillers*- deserve separate mention insofar as and insofar as it is the most favorable environment to question the traditional models of female characters. However, this greater complexity of the representations of women still has its Achilles heel: the reconciliation of social life with work is more, Pacheco-Jiménez (2023) warns of the traditional lack of women in Spanish cinematography in professions related to action and even in the concept of criminality considered as work - insofar as it is the livelihood of the characters - and its relation to the need for these women to devote their efforts to the care of their children, while male characters boast greater freedom to develop professionally. Spanish television series opt for a greater representation of women in positions of action, as Lacalle (2022) shows, however, this causes an increase in what he calls dysphoric maternity (ibid.), due to the complexity involved in reconciling jobs in high positions with childcare which, in turn, leads to the redefinition of family models and, therefore, of motherhood, which it seems that Spanish fiction is achieving (Lacalle and Sanchez, 2015).

In the aforementioned study by Lacalle and Sánchez (ibid.), which collects 709 female characters to analyze how motherhood is constructed in Spanish fiction series, four fundamental family models visible in recent serialized fiction are established, which are:

- The integrated family, whose mother "reinforces unity among its members by implementing traditional family canons" (p. 232). Their protective instinct goes beyond morality, and they may even cover up for their children in criminal acts such as murder. This obsession with protecting the family institution persists even when the offspring are adults, falling even further into the stereotype of unhealthy motherhood.
- The flexible family is based in part on questioning traditional models of motherhood so that the mother has to adapt to the context, being a "chameleon mother" (p. 233). This is where mothers of stolen children or adoptive motherhood come into play, seeking to legitimize their own position vis-à-vis the biological mother.
- The dysfunctional family is headed by a mother whose actions lead to the dissolution of the family unit because she puts her own welfare before that of her offspring.
- Finally, the basic characteristic of the unstable family is the absence of these mothers in the lives of their children, who often appear little or not at all in the plots, that is, motherhood is a title, not a real role with implications for the characters.

Other relevant questions for this same study are: whether the actions of the mothers reinforce or weaken the family unit and the sentimental situation of these characters who, in order of highest to lowest frequency of representation, are married, widowed, single, divorced, in a couple living together, in a couple not living together and, lastly, their social status is unknown. All these variables, in line also with Press (2018) in the international scientific literature, evidence a new paradigm in the Spanish television landscape: the desacralization of motherhood.

In reference to the construction of characters, as previously mentioned, the terminology of Casetti and Dichio (1991) is taken into account, specifically the articulation of the character as a person, insofar as here the actions of the characters are defined that allow us to distinguish them as simple or complex in their construction, and whose

implication in the present study allows us to discern whether the possible desacralization of these maternities, once it is proven that they move away from stereotypical features, is due to the fact that they are actually simple characters, little treated, with few edges or little evolution. If, on the contrary, these mothers do not tend to stereotype and, in addition, they are constructed from complexity, it would be giving value to this possible distancing of these characters from the perfect mothers represented so far. Thus, it is determined whether these women are flat (one-dimensional) or round (complex and varied) characters; whether they are linear (stable) or contrasted (contradictory) and, finally, whether they are static or dynamic depending on whether they do not evolve or, on the contrary, undergo changes in this respect.

Method

Target
The present research aims to analyze the maternities shown in the Netflix series *Sagrada Familia* (Ley y Cordova 2022-2023) in order to, under the terminological umbrella described, check whether these new family models bring with them in the case of the aforementioned fiction the desacralization of the concept of maternity, based on the wide catalog of mothers it represents.

Methodology
In order to achieve the objective, a qualitative-descriptive approach is chosen, based on the literature review, on the one hand, of one of the main manuals on character construction and their place in the plot, i.e. Casetti and Dichio (1991); and, on the other hand, on the research on gender, representation and motherhood by Guarinos (2008) and Pacheco-Jiménez (2022); Lacalle and Sánchez (2015); Lacalle (2022). Based on these studies, and taking into consideration what is commonly considered in the scientific literature to be the main aspects of female characters marked by motherhood, the following variables are considered fundamental for the present research:
   a. Identification of the type of maternity (biological, adoptive, surrogate...)
   b. Description of the maternal conflict, that is, the relationship with each character's own concept of motherhood.
   c. Type of family according to Lacalle and Sanchez, 2015.
   d. How you develop the concept of protection towards your children and whether this behavior strengthens or weakens the family unit.
   e. Sentimental life of the character.
   f. Professional development.
   g. Stereotypes according to Guarinos (2008) and Pacheco-Jiménez (2022)
   h. Character Complexity according to Casetti and Dichio (1991)
With the study of these eight variables, it will finally be possible to determine whether in *Sagrada Familia* the spectator witnesses a desacralization of the concept of motherhood.
The following table is proposed, which includes the variables described above, and which will be applied to each character separately:

Table 1
Character no.: character name

Criteria	Description
a) Type of maternity	
b) Description of the maternal conflict	
c) Type of family according to Lacalle and Sanchez, 2015.	
d) Does the concept of protection strengthen or weaken the family unit?	
e) Sentimental life	
f) Professional development	

Series

The series, which consists of 16 episodes divided into two seasons, has as its starting point the move of Gloria (Najwa Nimri) to a residential neighborhood along with her baby and the alleged caretaker, Aitana (Carla Campra). Once there, she befriends Bianca (Macarena Gómez, mother of a child with Down Syndrome), Caterina (Alba Flores, who has a baby that she actually rents to a drug addict to pass herself off as a mother) and Alicia (Ella Kweku, who is considering whether to get pregnant or adopt). From this friendship, and a web of lies, *Sagrada Familia* moves between *thriller* and drama to make a portrait of Gloria, who is actually Aitana's mother and has her twin locked in the basement, and who became pregnant with the baby with genetic material from another son, deceased, before the impossibility of her partner, Natalia, to conceive. Once her son is dead, Natalia claims, as the mother who provided the genetic material, the maternity of the baby and Gloria, legitimized by the concept of gestation, steals the baby and runs away.

Characters

Around this main plot, a multitude of intertwined *storylines* are developed, usually starring a woman and revolving around some kind of motherhood motherhood. Thus, the female characters that are part of the present research are:

Table 2

List of characters and plots

CHARACTER	PLAYED BY	EVENTS
Gloria Roman	Najwa Nimri	Mother of three children: Aitana and Abel (twins) and Santi (dies drowned)
		Santi wants to have children, but Natalia can't, so Gloria offers to get pregnant while Natalia pretends to be expecting a baby.
		When Santi dies, Natalia demands to take the baby to Argentina, her country, so Gloria kidnaps him with the help of the twins, they move and change their identities.
		In order not to be discovered, Aitana has to pretend to be the nanny and Abel ends up locking him in the basement.
		He murders his daughter's boyfriend, who is pregnant, to protect his identity and his secret.
		When, at the end of the series, she is about to get away with it, she realizes that she is not good for her children and takes them to safety from herself and Natalia by driving the car in which they are traveling down an embankment.
Natalia	Laura Laprida	She suffers from the stigma of not being able to get pregnant.
		He accepts that Gloria becomes pregnant with his child with his genetic material.
		When Santi dies, she considers herself the baby's legitimate mother, so she goes after Gloria when she kidnaps him.
Bianca	Macarena Gomez	Her son has Down Syndrome, she looks like a devoted mother, caring for her son with devotion.
		She unveils herself as a woman addicted to anxiolytics.
		One day, under the effects of pills, his son runs away and ends up in a pond. She sees him die and does not try to save him.
Aitana	Carla Campra	Pregnant
		Her boyfriend was killed by Gloria, her mother.
		She claims to want to be a different kind of mother than Gloria.
Caterina	Alba Flores	Criminal hired to spy on Gloria and take the baby.
		To fit into the residential neighborhood he needs his own child, so he rents a baby from a drug-addicted woman.
		When she is about to disappear, she decides not to return the baby to his biological mother and leaves him with Alicia and her partner, neighbors who are eager to have children.
Claudia	Claudia Melo	Drug-addicted mother who sells her son to Caterina by the hour in order to get money to continue using drugs.
		Lives on the street.
		When, after Caterina disappears, she discovers that her baby is with the neighbors, she tries to legitimize her motherhood, but she is invalidated by being a drug addict, so she decides to straighten out her life and quit drugs.
		Gloria, who has made a deal with the neighbor with whom she has agreed to kill Claudia, is going to convince her to use drugs (contaminated with pieces of crystal meth). After refusing several times, he finally gives in to temptation and dies.
Alicia	Ella Kweku	She seems to be eager to become a mother.
		The reality is that after three years of being with her partner she became pregnant and hid it from him because she has decided not to become a mother.
		She tells Pedro, her partner, that she cannot be a mother, so the pressure to adopt begins.
		She goes with her partner to find out about the adoption process and she has doubts.
		He takes care of Claudia's baby thinking he is Caterina's son, who has disappeared.
Total	**7 characters**	

Note. Events = major events in the character's development and evolution related to motherhood.

Results

The proposed presentation of the results is that of a table per character in which the eight variables (a-h) studied are found. However, it should be clarified that due to the complexity of Gloria's character, who is also the protagonist, and the fact that her motherhood develops in three spheres: one with the baby, another with the twins Abel and Aitana, and a third with Santi, her deceased son, three different tables are detailed, since the development of the character and her concept of motherhood differs depending on which progeny Gloria is dealing with.

Thus, the results found in the analysis of female characters in relation to motherhood are:

Table 3
Character 1: Gloria in relation to the baby

Criteria	Description
a) Type of maternity	Biological mother, in that she has given birth despite not being her genetic material.
b) Description of the maternal conflict	She considers her motherhood to be more legitimate than that of Natalia, who provides the genetic material. She has given birth to the son of her son Santi.
c) Type of family according to Lacalle and Sanchez, 2015.	Flexible, because it challenges traditional models of motherhood.
d) Does the concept of protection strengthen or weaken the family unit?	Her eagerness to protect the baby leads her to steal him, change his identity and hide in a new life away from Natalia, the other biological mother. Strengthens the family unit.
e) Sentimental life	Nonexistent.
f) Professional development	He is dedicated to the design of stained glass, has a workshop at home. At the beginning of the series, this aspect has very little value and, what value it does have, is progressively reduced until it disappears completely.
g) Stereotypy (Guarinos, 2008; Pacheco-Jimenez, 2022)	No
h) Construction of the character (Casetti and Dichio, 1991)	Round, contrasted and dynamic. Complex character.

Table 4

Character 1: Gloria in relation to the twins, Abel and Aitana

Criteria	Description
a) Type of maternity	Biological mother.
b) Description of the maternal conflict	They, who helped her steal the baby out of loyalty to her mother, constantly rebel against the situation. She must make them understand that everything she does is for their good, but in reality the two of them are the most harmed.
c) Type of family according to Lacalle and Sanchez, 2015.	Unstructured. They are the ones who suffer the consequences of Gloria's eagerness to attach the baby to the family unit. This constant attempt at union leads to dissolution.
d) Does the concept of protection strengthen or weaken the family unit?	The intention to protect her children leads Gloria to lock Abel in a cellar. It weakens the family unit.
e) Sentimental life	Already described.
f) Professional development	Already described.
g) Stereotypy (Guarinos, 2008; Pacheco-Jimenez, 2022)	No
h) Construction of the character (Casetti and Dichio, 1991)	Round, contrasted and dynamic. Complex character.

Table 5
Character 1: Gloria in relation to Santi, her late son

Criteria	Description
a) Type of maternity	Biological mother.
b) Description of the maternal conflict	He gives birth to his son's child because he very much wants to be a father. In addition, he cannot accept that his son died in an accident.
c) Type of family according to Lacalle and Sanchez, 2015.	Integrated. He goes so far as to help Santi cover up a crime. Santi runs over a young man when he is under the influence of alcohol and Gloria not only helps him cover it up, but ends up killing the young man, who was still alive, to keep the secret so that her son would not go to jail.
d) Does the concept of protection strengthen or weaken the family unit?	Her desire for Santi's protection leads her to commit crimes to strengthen the family unit.
e) Sentimental life	Already described.
f) Professional development	Already described.
g) Stereotypy (Guarinos, 2008; Pacheco-Jimenez, 2022)	No
h) Construction of the character (Casetti and Dichio, 1991)	Round, contrasted and dynamic. Complex character.

Table 6
Character 2: Natalia, the other biological mother

Criteria	Description
a) Type of maternity	Biological mother. The genetic material with which Gloria becomes pregnant is hers.
b) Description of the maternal conflict	Gloria has stolen her son and she crosses several countries in an attempt to get him back.
c) Type of family according to Lacalle and Sanchez, 2015.	Flexible. She seeks legitimization of her motherhood vis-à-vis Gloria's motherhood.
d) Does the concept of protection strengthen or weaken the family unit?	She wants to protect her baby from Gloria. After the death of Santi, his partner, his family unit is completely broken and he wants to reunite it to reinforce it.
e) Sentimental life	His partner is deceased. No further information is available.
f) Professional development	Nonexistent.
g) Stereotypy (Guarinos, 2008; Pacheco-Jimenez, 2022)	No
h) Construction of the character (Casetti and Dichio, 1991)	Round, contrasted and dynamic. Complex character.

Table 7
Character 3: Bianca

Criteria	Description
a) Type of maternity	Biological mother.
b) Description of the maternal conflict	Your child has Down syndrome.
c) Type of family according to Lacalle and Sanchez, 2015.	Under the appearance of being the builder of an integrated family, with traditional values and a superb protective instinct, she may even seem like a *mater amabilis* at times, but in the end she reveals herself as the main component of a broken family, tired of her husband not wanting her, bored of being a housewife and capable of watching her son drown without doing anything because, in reality, it is a relief to get out of that disguise. Also, addicted to anxiolytics.
d) Does the concept of protection strengthen or weaken the family unit?	He moves between the absolute protection displayed during the development of the series and the total lack of protection of his son as he watches him drown. Based on the end result, their actions significantly weaken the family unit.
e) Sentimental life	She is convinced that her husband is unfaithful, but she stays with him because she does not want to face giving up being a housewife.
f) Professional development	She was a flight attendant, when she tries to return to work after a long time and after the death of her son, she has a panic attack.
g) Stereotypy (Guarinos, 2008; Pacheco-Jimenez, 2022)	No
h) Construction of the character (Casetti and Dichio, 1991)	Round, contrasted and dynamic. Complex character.

Table 8
Character 4: Aitana

Criteria	Description
a) Type of maternity	Biological mother. She is pregnant.
b) Description of the maternal conflict	Her mother has killed her partner, with whom she became pregnant before she died. She is clear that, despite the strong maternal instincts she knows Gloria has, she wants to be a different kind of mother to the baby she is expecting.
c) Type of family according to Lacalle and Sanchez, 2015.	Flexible. As a daughter, she is questioning the models of motherhood and, as a mother, she has to adapt to her context.
d) Does the concept of protection strengthen or weaken the family unit?	Her concept of protection with the baby she is expecting leads her to have the desire to move away from his mother to make him safe, so she would reinforce this coming family unit once her child is born (the series ends while she is pregnant).
e) Sentimental life	He fell in love and jeopardized the concealment of his identity, so when his boyfriend found out his mother killed him. After his death, he begins a relationship with the brother of his former partner.
f) Professional development	Student.
g) Stereotypy (Guarinos, 2008; Pacheco-Jimenez, 2022)	No
h) Construction of the character (Casetti and Dichio, 1991)	Round, contrasted and dynamic. Complex character.

Table 9
Character 5: Caterina

Criteria	Description
a) Type of maternity	Rent a baby. She is not a mother, nor does she want to be, but she must pretend to be because she has been hired to find Gloria.
b) Description of the maternal conflict	After a long time renting the baby to a drug-addicted woman, Claudia, the time comes when she is going to run away and decides to make the baby safe, both from her and from the biological mother, and leaves it to the neighbors, who wish to become parents.
c) Type of family according to Lacalle and Sanchez, 2015.	Unstable. The daughter is simply a consequence of her work.
d) Does the concept of protection strengthen or weaken the family unit?	While she seems to have no concept of protection, in the end she decides to make the baby safe, so, without being her family unit because she does not have one, she helps to create one.
e) Sentimental life	He has sex with the partner he is assigned to spy on Gloria and with another criminal he knew before who is his accomplice.
f) Professional development	Criminal. The character is defined by this aspect, it is the only thing that matters to him and therefore he lacks personal ties.
g) Stereotypy (Guarinos, 2008; Pacheco-Jimenez, 2022)	No
h) Construction of the character (Casetti and Dichio, 1991)	Round, contrasted and dynamic. Complex character.

Table 10
Character 6: Claudia

Criteria	Description
a) Type of maternity	Biological mother.
b) Description of the maternal conflict	She is a drug addict and destitute. He rents his baby to Caterina on a daily basis to get money to keep getting high. When he sees that his daughter doesn't come back one day, he decides to get her back and stop using drugs. Finally, Gloria, intending to kill her, tempts her and she falls, dying because the drugs contained crystals.
c) Type of family according to Lacalle and Sanchez, 2015.	Unstable. Her daughter is never with her, it is only a nominal position.
d) Does the concept of protection strengthen or weaken the family unit?	Their concept of protection is altered by drug use. In any case, their actions weaken the family unit.
e) Sentimental life	Nonexistent.
f) Professional development	Nonexistent.
g) Stereotypy (Guarinos, 2008; Pacheco-Jimenez, 2022)	No
h) Construction of the character (Casetti and Dichio, 1991)	Round, contrasted and dynamic. Complex character.

Table 11
Character 7: Alicia

Criteria	Description
a) Type of maternity	No mother.
b) Description of the maternal conflict	Your partner wants very much for you to be parents and puts pressure on you. She became pregnant by him three years into their relationship, but deliberately miscarried because she does not want to be a mother. The problem is that you don't know how to tell your partner. After much pressure, they decide to adopt, but she backs out. In the end, he ends up taking care, together with his partner, of Claudia's baby, the drug addict.
c) Type of family according to Lacalle and Sanchez, 2015.	Flexible family. Despite not wanting to be a mother, her concept of motherhood modulates with the development of the character and the contexts in which she is involved.
d) Does the concept of protection strengthen or weaken the family unit?	Her concept of protection leads her to take care of Claudia's baby even though she does not want to be a mother, thus reinforcing the family unit built with her partner.
e) Sentimental life	He has a steady partner.
f) Professional development	She is a teacher at Bianca's son's school.
g) Stereotypy (Guarinos, 2008; Pacheco-Jimenez, 2022)	No
h) Construction of the character (Casetti and Dichio, 1991)	Round, contrasted and dynamic. Complex character.

Discussion and Conclusions

Discussion

Determining whether the *Holy Family* proposes a destruction of the concept of ideal motherhood involves not only observing the most obvious aspects of this broad catalog of maternities, but also analyzing in detail what singularities make these characters truly different models from those that have been represented.

In the first section, the variable a. type of maternity, provides diverse results, such as:

- Traditional biological maternity (childbirth and genetic material: Gloria with her twins, Gloria with Santi, Bianca and Claudia);
- Biological motherhood based on childbirth (Gloria with the baby);
- Maternity based on genetic material (Natalia)

- Future Maternity (Aitana);
- Non-motherhood (Caterina and Alicia, the latter moving between the concepts of non-motherhood, adoption and foster care, but refusing motherhood).

Next, variable b. Description of maternal conflict, shows different points of view of different women on how to legitimize motherhood, from the struggle for who imposes her concept of biological mother between Gloria and Natalia, the need for domination and authority of Gloria with her children, and even the need to justify non-motherhood, given in the cases of Caterina and Alicia, but all conflicts revolve around imperfect mothers trying to reaffirm themselves in their decisions about motherhood.

The family types variable, variable c., provides interesting results. First, all the characters ascribe to the types delimited by Lacalle and Sánchez (2015) and, second, the four types they describe are represented in the study. Special attention deserves here the character of Gloria, who has three spheres and in each one behaves as the visible head and articulating axis of a type of family: flexible with the baby, unstructured with the twins and integrated with Santi.

In the section related to the concept of protection and whether this concept weakens or strengthens the family unit, diversity can also be found in spite of being a taxonomy because, with only these two options, it is found that all the characters have a particular context:

- Gloria, with the baby, intends to strengthen the family unit, but with the twins she ends up weakening it. Finally, with Santi she intends to strengthen it, but fate wants him to die, taking away Gloria's chance to strengthen the family unit.
- Natalia, stripped of her family unit, does not want to reinforce it, she wants to recover it.
- Bianca, under the guise of a protective and loving mother, is the one who ends up triggering the total destruction of their family unit.
- Aitana, in order to build a healthy family unit and strengthen it, must first weaken the current one.
- Caterina has no family unit.
- Claudia, by renting out her baby because of her drug addiction, ends up losing her family unit.
- The different contexts in which Alicia develops lead her to create a family unit, even though she denies it.

The sentimental life of the characters, variable e., presents different results, on the one hand, those whose partners do not exist and are not even mentioned (Gloria and Claudia), followed by those who have dead boyfriends (Natalia and Aitana); then those who neither have nor pretend to have ties, but do experience sexual desire (Caterina); finally, those who are in a couple (Bianca, married and frustrated; and Alicia, traditional except for not wishing to be a mother).

One of the main disadvantages that the female characters have to face is the reconciliation between care and the development of their profession. It is striking that, in this case, the work performance of these characters is not relevant at all and does not delimit them in any aspect, which is why they are barely developed, as the analysis of variable f shows. The professions are used to link some characters with others (Caterina is in charge of discovering Gloria and Alicia is the teacher of Bianca's son) or to link the characters with the school (Gloria designs a stained glass window for the school and Alicia works there), only in the case of Bianca, who also has no development, is used as a delimitation of the character to show at a specific moment that she has not overcome her

involvement in the death of her son, and she is shown in her job as a flight attendant but fails to take off because of a panic attack.

Finally, variables g. whether the characters comply with any of the stereotypes described by Guarinos (2008) and Pacheco-Jiménez (2022) and variable h. whether the characters are simple or complex in the terminology of Casetti and Dichio (1991), can be summarized together since none of the women tend to stereotypy and all of them are complex. The complexity of these characters is fulfilled in the three dimensions detailed by Casetti and Dichio, that is: they are rounded (varied), contrasted (contradictory) and dynamic (with evolution), so the fact that they move away from stereotypy and, at the same time, all women are complex in all their dimensions of the character as a person, contributes to the credibility of the desacralization studied here, since it shows that the results of the previous variables (a-f) are not the product of conceiving banal, stereotyped or simple characters.

Conclusions

The study of the motherhoods depicted in *Sagrada Familia* as a paradigm of the progressive departure of female characters in Spanish television series from what it means to be a perfect woman and, therefore, an ideal mother, shows that the diversity of mothers represented is wide, with conflicts, contradictions and built from complexity.

The character that moves the whole series and whose conception is more complex is Gloria, who has three spheres in which she plays as a mother and in all of them she is contradictory and a failure in spite of her evident efforts. She is also the one who carries the weight in the stark rivalry of two biological mothers struggling to legitimize their own motherhood, a struggle she maintains with Natalia and which ends when Gloria realizes that neither of them is the right mother, takes her children to safety and drives the car in which they are both traveling down an embankment. Bianca, on the other hand, is a character who moves between two extremes, excessive protection and paralyzed assistance to the death of her son, that is, between care and homicide. Aitana is torn between her loyalty to her mother and her instinct to protect her unborn child; Claudia dies in the dilemma between drugs and motherhood; and Alicia is a kind of mother forced by circumstances. Only Caterina, a woman of action and therefore outside of care (Pacheco-Jiménez, 2023; Lacalle 2022) actively decides and manages to live outside of motherhood, except when she rents the baby for her work. However, it is striking that women who are not mothers end up conditioned by motherhood (Caterina and Alicia), as noted by (Douglas and Michaels, 2004), nevertheless, they face the situation and redefine it: in Caterina's case by reaffirming themselves; in Alicia's case, by leaving the decision without making it.

The professions and professional lives of these women, two of the most delimiting aspects for the female characters, become completely irrelevant in *Sagrada Familia.* Only in the case of Alicia is her personal life important, but to show the situation faced by traditional women who decide not to succumb to the pressures related to motherhood. This absence of deep development in professions and personal lives ratifies, together with the fact that the characters do not tend to stereotype nor to simplicity, the achievement of the fundamental object of this research, which is none other than to verify that, indeed, these new family models bring with them the desacralization of the concept of motherhood, desacralization based on the failure as mothers of all these characters because none of them is a perfect woman, much less an ideal mother.

Once this case has been substantiated, it is hoped, with future research work, to use this as a starting point to monitor similar Spanish fiction series that are produced with the aim of questioning the model of self-sacrificing motherhood and even to make a

comparison between the representation of mothers in the East and the West; in addition, the possibility of extending this work by checking whether these new models are far from or close to what is currently called real motherhood, whose objective, on many occasions, is precisely to question the pillars of what has traditionally been conceived as motherhood, is raised. Finally, and leaving the field of representation, this study aims to expand to include the users and the discussions that have been generated around motherhood thanks to the broadcast of the series.

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