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## INTERACTIVITY AS PROSOCIAL DRIVER IN THE RTVE LAB

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### ABSTRACT

In recent years, there has been a proliferation of immersive journalism aimed at eliciting empathy from its audience (Milk, 2015), enabling users to experience the facts in the first person, facilitating a feeling of "presence" (De la Peña et al., 2010) and consequently fostering prosocial behaviors (i.e., positive behaviors or interactions), thereby turning the environment into an "empathy machine" (Milk, 2015) or an "emotional geography" (Baía, 2023, p. 137). Just as Archer and Fischer (2018) identified empathy-generating elements of 360-degree video news stories, the objective of this study is to determine whether four interactive products dealing with social issues created by the Spanish national broadcaster's Laboratory of Audiovisual Innovation and New Narratives (RTVE Lab) in 2023 —*Rescate en el Mediterráneo*, *8M: cómo el machismo marcó nuestra adolescencia*, *Cadáveres de Hormigón*, and *El lado oscuro de los filtros*— provide a sufficient level of viewer immersion to promote prosocial behaviors. To this end, the technological, narrative, and thematic aspects of these products are analyzed, as well as the product concept and type of content. The results reveal that the RTVE Lab's deliberate choice of social content and its use of interactivity and/or transmediality give the products selected for analysis prosocial characteristics, as they are thus able to generate "place illusion" and "plausibility illusion" (Slater 2009) and to elicit viewer empathy. The findings also confirm that audience immersion is possible using interactive formats without 360° video, whose use has been declining since 2018 (Pérez-Seijo, 2021).

**Key words:** Interactivity, transmediality, immersion, immersive journalism, RTVE Lab.

## 1. INTRODUCTION

### 1.1. Toward a definition of prosocial behavior

Ivars & Martínez (2020) suggest that empathy encourages individuals to engage in prosocial behaviors. To understand what this means, it is necessary first to define what a prosocial behavior is. According to Moñivas (1996), a prosocial behavior is “any behavior that benefits others or has positive social consequences” (p. 1). This type of behavior could take various forms, such as helpfulness, cooperation, or supportiveness. Recognizing it as positive for society, researchers in the social sciences began studying prosocial behavior in the 1970s. Since that time, there has been a profusion of different definitions of the concept, but there is a general consensus that it has a positive impact. In those first studies and today, this type of behavior is recognized as having two types of consequences: on the one hand, it can promote supportiveness, tolerance, and helpfulness; and on the other, it can prevent antisocial behaviors such as violence, aggression, and indifference.

The field of psychology has played a crucial role in clarifying the importance of cognition in prosocial behaviors, concluding that such behaviors involve understanding the needs of others to some extent, or what could be referred to as putting ourselves in another’s place, as well as “the use of moral reasoning to decide on the right course of action and the possibility of responding vicariously to the emotions of others” (Moñivas 1996, p. 8). As will be discussed in the following section, Milk (2015), Baía, 2023, Soler-Adillón & Sora (2018), González Portal (2000), Donghee Shin (2018), and Archer & Finger (2018) have shown how immersive audiovisual productions can elicit viewer empathy through a level of immersion that makes viewers feel like protagonists in the story, located at the scene of the action. Feeling immersed in the experience, or what Slater calls “place illusion,” can make the viewer feel empathy or sympathy, depending on the specific case:

«Sympathy and empathy serve as a motivational foundation for prosocial behavior. Sympathy refers to a feeling of sadness or concern about the situation of another person. Emotional empathy, on the other hand, refers to a vicarious emotional reaction to the emotional state or situation of another person that is consistent with that emotional state or situation» (Moñivas, 1996, p. 10)

### 1.2. Immersion as a way of promoting a prosocial message.

The way people watch audiovisual content has taken a major turn in the last few decades; today, it can be viewed anywhere at any time (Baía, 2023). In response to the multiplicity of viewing formats, television producers have clearly embraced immersion as a means of captivating an audience. Immersive and interactive environments in museums, video projection mapping on 3D models, animated infographics, holograms, and interactive floors are some of the ways that artists have found to immerse their audiences in an experience (Onionlab, 2023). But this feeling of immersion can also be achieved by watching a TV set in the comfort of our living rooms. Immersive TV is a format that “tries to engage all the senses while you watch a film or program” (Ramallo, 2013). In Spain, the company Indra became a pioneer in the sector in 2010 with a pilot project for immersive television called Salón, which offered a “service with automated

controllers to adjust the ambient lighting, an odor dispenser, or a moving armchair” (Ramallo, 2013). Around 2012, a new ecosystem of immersive media technologies and experiments began to develop, contributing to the creation of their ultimate manifestation in virtual reality (VR). Since then, technological advances have been geared toward placing the viewer inside the screen. TV sets can now create an all-encompassing, immersive experience thanks to the realistic, detailed sound and vision offered by 4K resolution and 3D sound, and companies such as Samsung have leveraged the latest technology to develop TVs that offer fully immersive viewing (Samsung, 2022).

According to Murray (1997), the concept of immersion from the user’s point of view is a state in which we concentrate totally on the reality depicted on screen, which makes us feel as if we were surrounded by it. There have been numerous studies exploring immersion in news reporting and its effect on audiences. De la Peña et al. (2010) define immersive journalism as “the production of news in such a way that the user gains a first-person perspective on the event or situation described in the news story” (p. 291). But this idea of a first-person experience in journalism is not new; it was already a feature of the New Journalism movement of the 1960s and 1970s in the United States, which sought to make the reader feel like an eyewitness to the news event. To achieve this, the journalists of this movement got involved in the stories they reported, living alongside their protagonists and narrating the events and the impact they had on them. Truman Capote, Tom Wolfe, Gay Talese, and Joan Didion were some of this movement’s greatest exponents (Domínguez, 2017, p. 2). Since then, various institutions have experimented with the potential of new technologies, such as the University of Southern California’s Integrated Media Systems Center (IMSC) and its immersive format project User-Directed News (Pryor et al., 2003).

An obvious milestone in the creation of virtual reality with a prosocial objective is undoubtedly the documentary by Nonny de la Peña, who has been referred to as the “godmother of virtual reality” (Volpe, 2015). Her documentary *Hunger in Los Angeles*, first screened at the Sundance Festival in 2012, is a testimony to her importance. De la Peña promoted social and political reflection using 3D immersive and interactive content in her immersive journalism projects for her company, Emblematic Group (Emblematic Group, 2019). De la Peña et al. (2010) went a step beyond, aiming not just to allow users to reconstruct the events in their imagination, but to offer them a realistic sensory experience in which they could feel like they were on the scene of the story, giving them a feeling of presence (De la Peña, 2010). Slater refers to this as “place illusion” (PI), referring to the sensation of “being there” (p. 1). Combined with this is another concept that Slater argues is just as important for understanding immersion: “plausibility illusion” (Psi), the idea that the event that is being represented is actually occurring. Although participants know that they are not really “there” and that the events are not really happening, they can convince themselves that they are and that what they are seeing is real. For Slater, the presence of these two variables (PI and Psi) results in a realistic impression on the user. To achieve it, technology plays an important role, and the more the real space can be shut out, the stronger the perception of the virtual space will be. This notion of immersion has been a constant object of interest ever since the 1990s. Immersive journalism mainly relied on 360° video to “transport” people into news stories and create an experience triggered by the holistic combination of feelings of immersion and of presence. Specifically, “some documentary makers

have experimented with 360° video with the aim of enabling the audience to engage with serious social and cultural issues” (Baía, 2023, p. 137).

Although the VR business model failed in the 1990s, there was a resurgence of interest in immersive technologies in the media sector around the end of 2015 and the beginning of 2016 (Doyle et al., 2016). At that time, news media outlets all over the world began experimenting with this type of content, hitting the market with VR devices, goggles, and headsets that could provide the perceptual isolation necessary to create a realistic sensory experience (Cummings & Bailenson, 2015). Following the first professional application of immersive journalism with *Harvest of Change* by the *Des Moines Register* in 2014, (De Barros, n. d.), immersive productions appeared in Spain between 2016 and 2018 in the online newspapers *El País* and *El Mundo*, as well as on YouTube and various mobile apps. However, VR suffered another decline in 2018 and 2019; after the test period, having failed to obtain the audience response or revenues necessary to continue production, the format was cancelled (López, Méndez & Olivares, 2022, p. 22).

Despite the vicissitudes of the VR industry, the quest to create the place illusion needed for viewer immersion has continued. But what is immersion good for? What effect does it have on users? Can it really inspire greater empathy, as Milk suggests (2015), or give rise to a genuine emotional geography (Baía, 2023)? According to Soler-Adillón & Sora (2018), immersive productions can effectively “help individuals to connect and to create ties, becoming more empathetic with others” (p. 64). For Baía (2023), immersive journalism dealing with social issues can raise social awareness, i.e., feeling what others feel, being able to adopt the perspective of others and to appreciate and interact positively with different groups (Baía, 2023, p. 138). The experience of being on the scene of the events enhances the viewer’s awareness. This is why Milk (2015) describes virtual reality as the “ultimate empathy machine.”

The feeling of presence has a significant impact on the user’s response to the content (Barreda, 2022). In their search for empathy-generating elements as signs of the prosocial nature of an immersive production, Ivars & Zaragoza (2018) make mention of dual omnipresence, a term coined by Nony de La Peña, referring to the feeling of being in two places at once (p. 159). “Bearing witness to a specific event involves users in an act of awareness, fostering a critical opinion on the issue and encouraging their participation in the real world” (Ivars & Zaragoza, 2018, p. 160). As a result, dual omnipresence encourages the user to engage in prosocial behavior, i.e., positive social conduct with or without altruistic motivations (González Portal 2000, cited in Auné et al., 2014) or a repertoire of positive social behaviors (Rodríguez, 2016).

Although Donghee Shin’s study of the empathy generated by a virtual environment (2018) reveals that the user’s experience depends on specific individual features, it is possible to identify some general empathy-generating characteristics. In their study of the capacity of audiovisual productions with VR to instill empathy in audiences, Dan Archer & Katharina Finger (2018) reach some revealing conclusions. First of all, they find that VR products elicit more empathy than traditional media, which means that VR users are more likely to take part in political or social actions. Their study also shows that VR content consumers are more inclined to take action and investigate the issue explored in the production. Moreover, they find that trust in the narrator is essential to building empathy and heightening the level of engagement with the narrative, and that a visible narrator or a clear protagonist serving as a guide to the story is more appealing to viewers.

Today, in the wake of the decline of immersive journalism using 360° video (Pérez-Seijo, 2023), very few Spanish news media companies have an active line of production of 360° immersive videos. The RTVE Lab has produced numerous 360° video productions but currently it is experimenting with other formats, as is reflected by this study. “Putting on a VR headset means stopping, knowing that you’re not going to get killed because you’re not going to trip over anything,” explains Juan Manuel Cuéllar, assistant director of the RTVE Lab (Santana 2013, p. 2). For Cuéllar, despite the length of time that VR has been available, viewing content of this kind still has the effect of taking you out of your everyday life to experience something different (Santana 2023, p 3). This is why the RTVE Lab, aware of its role as a public service, is adapting immersion to the everyday lives of its audience (Santana 2023, p. 6). Although the RTVE Lab has explored this format in previous years, currently “its technical limitations (it is expensive and it requires a very specific and complex filming process, an effective player, good bandwidth and hardware to transfer and manage very heavy files, as well as immersive devices such as headsets, etc.), its narrative limitations (its syntax is tightly conditioned by its markedly subjective perspective, e.g., forced ellipsis), and the variety of immersive experiences (VR, AR, 360° video) make it difficult to normalize as a resource in a fully developed version. In addition to these considerations, a specialist design and development team is needed to manage the aesthetics and ergonomics of this narrative ecosystem, its UX and UI design, and such professionals today are costly and hard to find,” explains Cuéllar.

Today, immersive journalism products using 360° video generally only appear on sites created specifically for their dissemination or on conventional news sites where the purpose is to explain a specialist topic or a complex contemporary issue, and with a high expectation of success, such as Radio Televisión Canaria’s coverage of the eruption of the Cumbre Vieja volcano on the island of La Palma, for which the broadcaster made excellent use of augmented reality (López, Méndez & Olivares García, 2022).

In view of the fact that immersive journalism using VR has not seen much progress, what other formats exist to create this “place illusion” (Slater & Sánchez-Vives, 2016) for users? Clearly, another way to give viewers a feeling of presence is through the narrative, by including them in the story directly or via an avatar or by offering them the opportunity to interact with the elements or characters depicted (Barreda, 2023, p. 1108; Domínguez, 2015). In other words, immersion can be achieved through user interactivity.

### 1.3. Interactivity and the interactive documentary

Research has confirmed that the level of user immersion plays a crucial role in the optimal achievement of a place illusion (PI) and/or plausibility illusion (Psi) (Slater, 2009) when viewing digital audiovisual content. It has also been corroborated that the use of VR can generate a high level of immersion. This section will explore the level of immersion that can be achieved through an interactive experience and whether it can generate the same place illusion or plausibility illusion as VR.

There is a consensus among theorists that interactivity entails reciprocity between the user and the machine (UOC, n. d.).

The multimedia environment offers numerous possibilities for interactivity, all of which depend on the specific product. According to Cuéllar, interactivity “involves a level of participation to share control over how the story progresses” (Santana 2024, p. 2).

In this context, the interactive documentary has been identified in recent years as a new audiovisual form that has found a place in the media ecosystem thanks to the development of interactive digital media, which has influenced the production, exhibition, and reception of traditional documentaries (Gifreu, 2013). The interactive documentary is “a hermeneutic, dialectic open resource that requires the user’s physical interaction to deploy its discourse, which is branching rather than linear, dialogic rather than omniscient, with potential and future prospects that would be the envy of any other audiovisual product” (De la Puente & Quiroga 2015, p. 62). Without doubt, this documentary genre has become one of the most effective tools available for telling non-fiction stories that convey a reality thanks to the ability users have to choose and take control over what they are viewing (De la Puente y Quiroga, 2015). The objective of the interactive documentary is to offer a different experience in order to explore issues of importance to society, such as social movements (Rivero, 2021). The key to this type of documentary lies in narration and interaction. The secret is thus to work out how best to blend these two elements (Gifreu 2011, p. 8).

A study of the role of interactivity and flow state in effective communication by Sicilia & Ruiz de Maya (2009) concluded that interactivity offers advantages that facilitate a more effective processing of the message, allowing the individual to develop the information more thoroughly and improving persuasive advertising processes.

De la Puente & Díaz Quiroga (2015) suggest that interactive spectators can sometimes take on the role of co-creator of the documentary experience, although generally that role will be subsidiary (p. 64). Users’ level of interaction may be strong, medium, or weak (Berenguer, 2004) depending on their level of involvement in the interaction. A requirement for medium or strong interaction is the use of digital technology and the user’s involvement in some kind of physical response in the strongest sense of the term (Gifreu, 2011). The user’s role may thus range from that of a mere interactor who engages with the interface to that of a participant who takes an active part in the development or a contributor to the generation of the system, providing content or impressions (Gifreu, 2013). For Cuéllar:

«The interactive documentary allows a level of control for receivers to influence the narrative development at their discretion, but always without undermining the result and the objective pursued by the documentary. This level of control can vary greatly and may be associated with a wide range of parameters. In the digital context, for example, non-linearity makes it possible to “nest” various simultaneous developments and give receivers the ability to establish their own itinerary, and even to manage the temporal progression of the story through to its conclusion, the final landscape (because it may also be a landscape) or the goal that must be reached» (Santana 2024, p. 2).

#### 1.4. Transmediality

There are various definitions of the term “transmedia” by different authors, including Scolari (2013), Henry Jenkins (2006), Robert Pratten (2015), and Jeff Gómez, and of the requirements associated with its use (Santana, 2021, p. 143). The concept of transmedia (Kinder, 1991; Jenkins, 2003; Scolari, 2019) is usually understood to refer to “stories expanded across

multiple media or platforms, usually in a digital environment” (Establés & Grijalba, 2021, p. 18). This definition can be complemented with the three simple, but essential requirements outlined by Belén Santa-Olalla, creator of the company Stroke 114: “a rich narrative universe; multiple platforms and different channels; and finally, audience participation.”

The origins of the term can be traced back to Kinder (1991) and her concept of “transmedia intertextuality,” followed by Henkins (2003) and his notion of “transmedia narratives,” defined as narratives expanded across different media in which users play an active role. It is also worth noting the perspective of Scolari (2014), who points out that each medium involved tends to be used to its maximum potential, adapting to the semiotic codes that characterize transmediality (Establés & Grijalba, 2021, p. 18).

Transmediality also involves both native and non-native projects. “Native” in this context refers to “architecture that is transmedia from the outset, in which all the channels and elements form part of the original design and where every channel and every construction has a connection with the other channels from the moment of its conceptualization” (Santana 2021, p. 144). In short, a native production is one in which all the pieces of the transmedia universe match up (Rosendo, 2019, p. 229).

## 2. OBJECTIVES AND METHODOLOGY

It has been established that the use of VR in audiovisual products generates a high level of immersion resulting from the place illusion and/or plausibility illusion (Slater 2009) it creates for viewers, who feel like they are on the scene of the events and that what they are seeing is real. In view of this fact, the purpose of this study is to determine whether the use of interactive tools can provide viewers with a level of immersion, place illusion, and/or plausibility illusion sufficient to promote prosocial behavior. To this end, the study analyzes the technological, narrative, and conceptual characteristics, as well as the subject matter and content of products dealing with social issues created by the Spanish national broadcaster’s Laboratory of Audiovisual Innovation and New Narratives (RTVE Lab) in 2023 (*Rescate en el Mediterráneo*, *8M: cómo el machismo marcó nuestras vidas*, *Cadáveres de hormigón*, and *El lado oscuro de los filtros*) with the aim of identifying the level of immersion they offer and ascertaining whether it is similar to that generated by VR.

The methodology for this research is based on an exploration of the state of the question resulting from a review of the literature on prosocial behavior, immersion, transmediality, and interactivity, particularly the studies by Slater (2009), Moñivas (1996), Ivars & Martínez (2020), Barreda (2018), Sánchez & Benítez (2021), De la Peña et al. (2010), Domínguez (2013; 2015; 2017), Domínguez & Luque (2011), Baía (2023), Milk (2015), Murray (1997), López, Méndez & Olivares-García (2022), Doyle et al. (2016), Cummings & Bailenson (2015), Ivars & Zaragoza (2018), Hardee & MacMahan (2017), Slater & Sánchez-Vives (2016), Gifreu (2013), Sicilia & Ruiz de Maya (2009), Rodríguez-Fidalgo & Paño-Ambrosio (2020), Pérez-Seijo (2021), Pérez-Seijo (2023), Sidorenko, Herranz & Molina (2020), Archer & Fischer (2018), Pryor et al. (2003), Domínguez-Martín (2015), Sirkkunen & Uskali (2019), Aitamurto et al. (2020), Vicente & Pérez-Seijo (2022), Soler-Adillón & Sora (2018), Dolan & Parets (2016), Watson (2016), Santana (2023), Vaz & Tejedor (2019), López, Méndez & Olivares (2022), Mato Brautović, Romana John &

Marko Potrebeca (2017), Scolari, (2013), Jenkins (2006), Pratten (2015), Kinder (1991), Jenkins (2003), Scolari (2019), Establés & Grijalba (2021), Rosendo (2019), Berenguer (2004), Rivero (2021), and De la Puente & Díaz Quiroga (2015).

This review is followed by an exploratory analysis of the aforementioned prosocial, among other products created by the RTVE Lab in 2023. The studies listed above have informed the creation of an analytical framework suitable for studying these products. In particular, the framework draws on Barreda's study (2018) of immersive journalism in Spain, which analyzes 75 pieces published by the newspaper *El País* and by RTVE in terms of the three most characteristic dimensions of immersive journalism products: their technological features, narrative aspects, and elements related to subject matter and content type (p. 1113).

For this study, certain elements have been eliminated from Barreda's framework, while new elements have been added.

In the category of technological features, the mode of transmediality has been added (Scolari, Jiménez & Guerrero 2012, p. 146), identifying whether it is a native transmedia product, i.e., designed from its conceptualization with different pieces in a universe in which each construction has a connection with the other channels (Santana 2023, p. 144-145), or non-native, being framed in the general context of its universe (Santana 2023, p. 144-145).

The category of narrative aspects includes the addition of a description of interactivity, identifying the interactivity level (weak, medium, or strong) (Berenguer, 2004) and the user mode (interactor engaging with the interface, participant taking an active part in the development, and/or contributor to the creation of the system, providing content or impressions) (Gifreu, 2013). This category is completed with an analysis of the user's role based on Dolan & Parets (2016), who distinguish between a passive or active observer or participant role.

In the category of subject matter, product concept, and content type, a product typology has been added based on Watson (2016) and Hardee & MacMahan, (2017), considering the content but without 360-degree video. According to Hardee & MacMahan, (2017) the product types are: current news on 360-degree video without interactivity; immersive public service content (pieces aimed at disseminating important information in the public interest for a general audience); immersive investigative pieces that reconstruct scenes using CGI to recreate spaces that the reporter cannot get to; and immersive explanatory reports that may combine real images with computer-generated reconstructions of scenes.

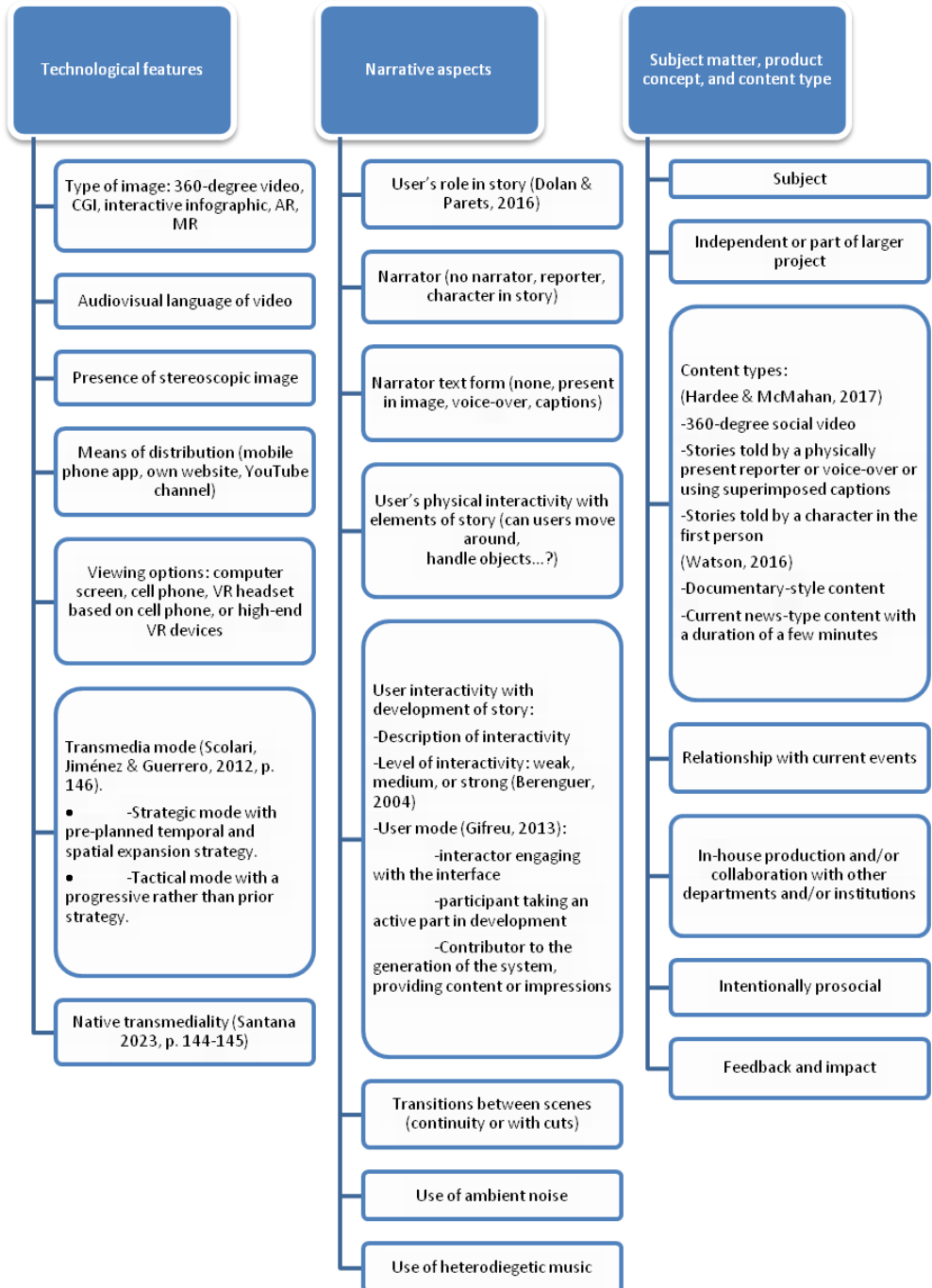
Watson's typology (2016) is summed up in the categories of (1) documentary-style content up to 15 minutes long with a more elaborate production that may use CGI or incorporate interactive options; and (2) current news content that is only a few minutes long.

In addition, data has been collected to identify whether the product was made by the RTVE Lab on its own or with contributions by other RTVE departments or organizations external to the public broadcaster.

Parameters have also been added to analyze the product's prosocial function as intended by the RTVE Lab, as well as data on impact and influence. Due to their importance, despite belonging to the third category, aspects related to the product concept are given their own section in the body of the article. The analytical framework is outlined in the table below.



Table 1. Analytical Framework.



Source: Prepared by authors.

Both sections of the study are complemented with reference to in-depth semi-structured interviews with Juan Manuel Cuéllar (assistant director of the RTVE Lab since 2022) and César Peña (RTVE Lab content coordinator, lab member since 2016) conducted on different occasions in person, via email, and by phone in 2023 and 2024.

### 3. ANALYSIS OF RESULTS

#### 3.1. The RTVE Lab

The RTVE Laboratory of Audiovisual Innovation and New Narratives (RTVE Lab) was created in 2011 by Ricardo Villa. Initially, it consisted of “one editor, one graphic designer, and one producer,” but since then it has “continued exploring different narratives in line with technological advances and the growth of possibilities offered by the internet,” explains César Peña, RTVE Lab content coordinator (Santana, 2023, p. 1). Today, although the team sizes can fluctuate, there are four people working on content, three in production, three in design, and five programmers (Santana 2023, p. 3).

According to its assistant director, Juan Manuel Cuéllar, the objective of the RTVE Lab is to “explore narrative formulas that are non-conventional, explore ways of working and the transversal potential they have to turn into normalized tools for the rest of the corporation” (Santana 2023, p. 1). Peña explains that the idea of the RTVE Lab is to “make use of what the digital environment offers us, all the tools and all the formats that can be found there — multimedia, interactivity, mixed reality, gamification— and use it to tell stories.” Cuéllar adds that the department also works on topics that require a highly specialized or specific narrative or that are left off the set agenda due to lack of time or lack of current relevance and that require some time and dedication (Santana, 2023).

The RTVE Lab has four different types of teams: content, production, web design, and programming. The content teams are made up of journalists. These are the ones who propose ideas and debate within the team to determine their viability. The web design team is responsible for proposing what users will see when they log in on their cell phone or computer, and the development team has the programmers who convert and code the content into what will be placed on a server (Santana, 2023, p. 16).

#### 3.2. *Rescate en el Mediterráneo*

The transmedia project *Rescate en el Mediterráneo* (“Rescue on the Mediterranean”) consists of an interactive documentary, the podcast *El Faro del Mediterráneo* (“The Mediterranean Lighthouse”), and a social media campaign. The analysis here is limited to the features of the interactive product, which is a non-linear interactive web documentary structured in four 2- to 4-minute audiovisual blocks and four blocks with interactive infographics. Although all the videos (with a total time of 12:03 minutes) could be viewed in a linear way, this is a consequence rather than an aim, as the product is conceived as non-linear, whereby users can watch them in any order without this affecting their comprehension of the content, explains Cuéllar (Santana

2024, p. 2). This project was directed by Juan Manuel Cuéllar, coordinated by César Peña, and edited by Paloma Torrecillas and César Peña.

Figure 1. Home page for Rescate en el Mediterráneo



Source: RTVE Lab.

In terms of technological features, although there are no stereoscopic images, immersion is achieved through the filming style, the immersive audiovisual language, and the interactive nature of the product. The first three blocks are filled with footage taken by GoPro cameras placed on the boat in strategic places or on the bodies of the rescuers, as well as images filmed with a handheld camera suggestive of POV shots that place the viewer in the center of the story. For Cuéllar, immersion is achieved through the footage filmed with bodycams and GoPro cameras. As he explains, “this component of immersion is quite normalized, and it combines conventional storytelling with this inherent subjectivity” (Santana 2023, p. 11). Immersion is also aimed for through the narrative. In the words of its creators: “the images, filmed on board the ship and the rescue boats on the night of September 21, 2022, facilitate empathy to an extent rarely seen before for migrants who would have faced certain death if they hadn’t been rescued” (Prensa RTVEa, 2023).

The shots have a short duration, which accelerates the pacing of the editing. The final block, showing the rescued migrants on the ship *Geo Barents*, uses more carefully framed shots with no camera movements, more typical of cinematographic language. The videos themselves contain infographics and captions appearing with the background video, accompanied by a voice-over.

Figure 2. Video image



Source: RTVE Lab

The user chooses what to view at each moment, either the video or the interactive infographics, and the order in which they are viewed. The interactive documentary is distributed on the RTVE website, and its viewing options are via the web on computer, tablet, cell phone, or smart TV connected to the internet. The podcast has a link on the website to its storage location on RTVE Audio (Hernández, n. d.). The transmedia mode (Scolari, Jiménez & Guerrero (2012, p. 146) is tactical, as the project developed piece-by-piece with no prior strategy. The original product was the podcast, which was initially created without any plan to make a transmedia project. Javier Hernández, a journalist for Radio Nacional de España, traveled to Médecins Sans Frontières Rotation 17 to record a podcast. “Javier Hernández traveled for three weeks onboard the ship to find out how the NGO is working on the ground in this humanitarian crisis” (Prensa RTVE, 2023a). While there, he filmed footage on the ship, which, together with other footage taken by the NGO itself, was later delivered to the RTVE Lab. It was then that they began working on an interactive documentary.

In his discussion of narrative aspects, Barreda (2023, p. 1110) argues that VR storytelling and its immersive capacity makes viewers want to discover their role in the story. In *Rescate en el Mediterráneo*, the user’s role according to the categories defined by Dolan & Parets (2016) is that of an active observer throughout the process and an active participant only in the last interactive block, titled *En puerto* (“At Port”). Both roles are active, which means that the viewer receives a share of the narrator’s power to influence the outcome of the story. By definition, an active observer has decision-making power, but it is constrained by a predetermined set of choices established by the narrator. In *Rescate en el Mediterráneo*, users choose how to view the webdoc, the order in which the content will be displayed, and whether to view the whole product or not. In addition, they can choose to watch the video only, skipping the interactive blocks, or conversely, they can explore the interactive blocks only. Users construct their own journey and create their own unique experience. According to Dolan & Parets (2016), an active participant exists in the narrative world as a character and has an influence on the story. This is precisely what happens in the interactive block *En puerto*. This infographic personalizes the experience around the users, addressing them as “you” and treating them as if they were one of the migrants.

From this point onward, all the questions and interactions are direct, e.g., “you have just reached port and a team from the USMAF (Maritime, Air, and Border Health Office) are waiting to attend to you. What is your physical condition?”

The documentary is narrated by the journalist Almudena Ariza in a voice-over. However, the ambient noise and voices of the rescuers and the rescued are key to the experience and are given special priority in the first three blocks. The voice-over often pauses to allow the ambient noise to take over. The narrator is not visible in the story because the visuals are images taken by MSF and Hernández.

Figure 3. Infographic in the video



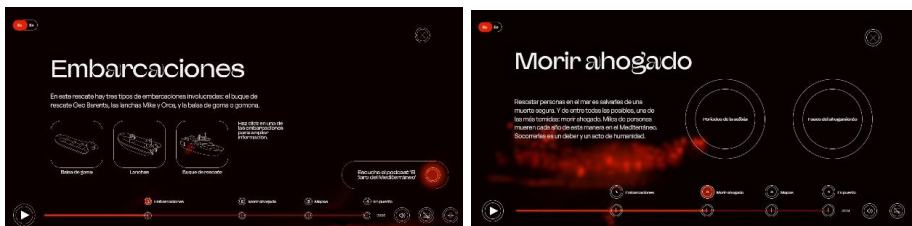
Source: RTVE Lab

Accompanying the four videos there are four blocks of interactive infographics that provide complementary information essential to the user’s immersive experience. The first block, titled *Embarcaciones* (“Vessels”), provides information on the vessels involved in the rescue operation: an inflatable boat, the boats named Mike and Orca, and the rescue ship Geo Barents. In the second block, *Morir Abogado*, the content deals with the subject of drowning and includes two links: “periods of suffocation,” with five periods; and “five stages of drowning.” The third block, *Mapas*, provides three links to maps: “Origin,” “Departure Points in Libya,” and “Routes to Europe.” Finally, the fourth block, *En puerto* (“At Port”) in turn provides three other links (“very ill,” “mildly ill,” and “healthy”), explaining how the rescue team would respond in each case.

In all four videos and the first three blocks of interactive infographics, the level of user interactivity with the development of the story is medium (Berenguer, 2004), requiring the use of the mouse to navigate along the chosen narrative itinerary. The user mode (Gifreu, 2013) is that of an interactor engaging with the interface. As mentioned above, users can freely choose what they view at each moment with a click of the mouse; they can move around the webdoc, establishing a pathway of their own that the documentary's creators never imagined, but the level of their control will not go further than these choices.

The fourth interactive block, *En puerto*, provides information on the migrants rescued by Geo Barents on September 21, 2022, and taken to the port at Taranto, Italy, on September 29. As mentioned above, this last infographic personalizes the questions for the user. The user has to respond as a migrant and to choose from among the options of serious illness, mild illness, and healthy. Each link in turn leads you onto subsequent links with different scenarios, depending on whether you are an unaccompanied minor, an adult, or an accompanied minor, and on the situation in your country of origin. As noted above, this personalization turns users from active observers into active participants (Dolan & Parets, 2016), not only involving them in the development of the narrative, but also isolating them completely from their real environment to focus their senses on the story being told. The user's own personality is replaced with the personality of a migrant. This “you” imposed on users inevitably serves as a way of eliciting empathy, understood as putting yourself in the other's place.

Figure 4. Interactive blocks



Source: RTVE Lab

Changes between scenes occur in blocks. All the blocks have a narrative continuity, but the transition is centered around a specific aspect that serves as the focal point of each block. The transitions of the audiovisual piece are short. The ambient noise plays an important role and there is no heterodiegetic music to soften the depiction of the harsh reality being presented.

The topic of the interactive explainer video *Rescate en el Mediterráneo* is the rescue of a vessel filled with people in the middle of the Mediterranean. As described by the Lab itself: “The intention is to familiarize people with the humanitarian work carried out by the rescue teams, focusing on details that are not usually shown in the news on this humanitarian crisis” (Prensa RTVEa, 2023). This interactive explainer video explores the internal mechanics of the rescues in a collaboration between the NGO Médecins Sans Frontières (MSF) and Radio Nacional de España (RNE). The webdoc arose out of the podcast made by Javier Hernández for RNE, *El faro del Mediterráneo*. As Sundar et al. (2017) point out, immersive journalism like this has the potential to transport users to places where they would probably be unable to get to on their own. It also immerses them in a story in which the environment itself has an emotional impact that would be difficult to convey in any other way. According to the typology developed by Hardee & McMahan (2017), this webdoc offers public service immersive content, with important information in the public interest for a general audience. According to Watson's classification system (2016), it is documentary-style immersive content given its total duration of less than 15 minutes, its more elaborate production, and its inclusion of interactive options (E.1.1) (E.1.2.) (E.1.3.)

The subject matter of this project is related to current affairs but lacks the immediacy required for a news story, possessing an atemporal currentness more characteristic of an investigative report. The project was launched in the context of the EU Summit on Migration and Asylum held in Granada on October 6, 2023 (El País, 2023; EU, 2023), having been produced by the RTVE Lab in collaboration with Médecins Sans Frontières and Radio Nacional de España (Prensa RTVE, 2023a).

*Rescate en el Mediterráneo* offers a high level of immersion, both in the video and in the interactive blocks. In the video, immersion is achieved by means of POV shots, which make viewers feel like characters participating in the story. The point of view is that of a rescuer, as the bodycams used to take the shots were worn by members of the rescue team. In this sense, the empathy elicited is empathy for the rescuer. Thanks to this level of immersion, the video also effectively creates place illusion and plausibility illusion. As Slater (2009) would describe it, users feel like they are “there” (PI) on the Mediterranean, and they also believe that this scene is real (Psi), because in fact it is, as reflected in the daily news reports on the issue.

Another high level of immersion is achieved through the user’s active observation throughout the webdoc, as it is the users who determine what to view and in what order. The highest level of immersion is achieved when viewers become active participants, when the final interactive block, *En puerto*, requires them to put themselves in the immigrant’s shoes. While the video allows them to place themselves in the rescuer’s role, now the experience of empathy involves taking the perspective of the Other, i.e., the immigrant. Although this is classified as a medium level of interactivity, the user’s role is that of an active interactor with an equally active influence on the story. Moreover, the fact that viewers can refer to other transmedia content expands the information they have access to and their connection with it. Taking Moñivas’ perspective (1996), *Rescate en el Mediterráneo* could be described as a product that promotes behaviors of supportiveness, tolerance, and helpfulness, in addition to preventing antisocial behaviors such as violence, aggression, or indifference toward immigrants. It is worth noting that beyond the user’s role, the rawness of the content itself means that empathy can be elicited through the choice and treatment of the content.

### 3.3. *Cadáveres de hormigón*

*Cadáveres de hormigón* [“Cement Corpses”] (Cadáveres de Hormigón, 2023) is a collaborative transmedia project about the hundreds of empty properties left all over Spain as a result of the housing bubble. The full project is articulated in three formats: a linear documentary broadcast on TVE, made by the team that produces the current affairs program *En Portada*; a website with information, images, audio, and video on phenomena associated with the property bubble (the Guggenheim Effect, the building boom, and the tourism boom) along with images of some of these buildings in 3D format created by the RTVE Lab; and an interactive map developed by the RTVE Data team that allows the public to interact with the many “concrete corpses” all over Spain. The RTVE Lab also carried out a social media campaign.

The object of analysis chosen for this study is the website, as this is the RTVE Lab’s main contribution to the project. This product was directed by Juan Manuel Cuéllar and the content coordinators were César Peña, Paloma Torrecillas, and Isabella Rocafull.

Figure 5. Home page for *Cadáveres de Hormigón*



Source: RTVE Lab

The technological features of the website include the distribution of its content across the following pages: *Sobre el proyecto* (“About the Project”); *Turismo a toda costa* (“Tourism at any Cost”); *Efecto Guggenheim* (“Guggenheim Effect”); and *El ladrillazo* (“The Building Boom”). Each page contains text, audio, images, or videos that provide context explaining why these urban developments failed and why they are now “cement corpses” on the Spanish landscape. In addition, “through 3D reconstructions, users can visit each of the locations discussed in the documentary and can also view each building in augmented reality on their mobile devices” (Prensa RTVEb, 2023) by scanning a QR code with their cell phone or tablet (Turismo a toda costa, 2023). The augmented reality (AR) of these buildings shows the virtual element in the physical context, displaying them to the user through an interface in the real environment with the support of technology (Grapsas, 2019).

The project is distributed via the RTVE Lab’s website, and its viewing options are via computer, tablet, cellphone, or smart TV.

A documentary made by the current affairs program *En Portada* was the source of the project. Based on this content, the RTVE Lab “adapted the story to an explanation with a different timing where you can read the text, but you can also introduce elements of augmented reality,” explains Cuéllar (Santana 2023, pp. 3-4).

Its transmedia mode is strategic, as it is the product of a pre-planned temporal and spatial expansion strategy, and it is native because each channel has its own content. “The first step was the current affairs program’s idea to explore the subject, but once the production of the TV documentary was assigned to one of the Lab’s producers, the whole production process and the narrative design was a joint effort.” The television documentary was then developed in a linear manner so that all the material “could be used in the interactive project and in the social media



campaign.” In this way, the whole project was articulated in a joint, interconnected way and planned as a single block. “It was a joint project by two areas collaborating: RTVE’s current affairs area (*En Portada*) and the RTVE Lab (Innovation),” explains Cuéllar (Santana 2024, p. 2). The social media campaign did not merely involve recycling the content, as it had original content of its own.

Figure 6. *Cadáveres de Hormigón* website



Source: RTVE Lab

This project does not fit into any of the categories described by Hardee & McMahan (2017) or Watson (2016). It is not a current issue that can be featured in daily news programming, although the general topic—sustainability—is clearly a matter of public interest.

In terms of narrative aspects, the user’s role while browsing the *Cadáveres de Hormigón* website is that of an active observer in the diegesis of the story (Dolan & Parets, 2016), and while viewing the images of the buildings in augmented reality using a tablet or cell phone, the user is an active participant due to the need to interact with the device in order to see the 3D projection and to choose where to see it. Users have to browse the website with the mouse to be able to access its content. They must choose what to see first, and which block to view, and once they enter the block, they will need to keep making decisions about what to view. They will have to choose what to do next, whether to click on the video, listen to the audio or read the content. But without doubt they reach the highest level of immersion when their role changes from active observer to active participant. This happens when they interact physically with the elements of the story using their cellphone or tablet to look at the AR images of the buildings. It is here that the viewer becomes the protagonist of the story and influences how it unfolds. When users browse the website the level of interactivity is weak, but it becomes strong when they view the buildings in AR on their cellphone or tablet (Berenguer 2004), which requires decisive physical movements.

The use of AR in this project clearly creates a higher level of user immersion and engagement than the interactivity of the website. Thanks to this element, the viewer becomes an active participant, and it is at that moment when the highest levels of immersion, place illusion, and plausibility illusion (Slater 2009) become possible. Viewers will believe they are inside these cement corpses, which are brought right into their own homes; they will feel like they are there, and that this reality exists. When AR is not used, the level of interactivity is lower and weaker

and the reactions of empathy and astonishment at the aberrations represented by these constructions are more intellectual than emotional. AR appeals more to the emotions elicited by the sensory experience. According to Moñivas' model (1996), when AR is not used, this product would only prevent antisocial behaviors, while when it is used it can also promote supportiveness, tolerance, and helpfulness.

### 3.4. 8M: cómo el machismo marcó nuestra adolescencia

*8M: cómo el machismo marcó nuestra adolescencia* (“March 8: How Misogyny Marked Our Adolescence”) is an interactive project in which each user enters her birth year to relive the cultural milestones that marked her teenage years. As explained on the website, to create this project the RTVE Lab team chose content for each year since 1975, looking for iconic moments that marked our history, as well as “anecdotal content that formed part of our everyday lives, like a quiz in a girls’ magazine” (*Cómo el machismo marcó nuestra adolescencia*, 2023).

Figure 7. 8M: cómo el machismo marcó nuestra adolescencia website



Source: RTVE Lab

To explain the technological features of this project it is important to note first that the content is presented on its own website (*Cómo el machismo marcó nuestra adolescencia*, 2023b) and that the viewing options are via computer, tablet, cellphone, or smart TV. Although information about it was posted on social media, it is not considered a transmedia project. It was directed by Juan Manuel Cuéllar, coordinated by Paloma Torrecillas, and scripted by Paloma Torrecillas, César Peña, and Isabella Rocafull.

The content explores the conceptualization of the image of women constructed by the media and popular culture in the teenage years of Spanish women. This project is independent but was created specifically for the month of March to mark International Women’s Day in Spain (March 8). On accessing the website, you enter the year of your birth and are then taken to a page with information on the five years of your adolescence (from ages 13 to 17). Significant information appears for each year, accompanied by an illustration and/or video and/or audio clips of radio broadcasts. The illustrations can be enlarged to view details and the videos are short (the shortest is 14 seconds and the longest is 2 minutes 27 seconds), taken from RTVE’s vast archives, including advertisements, edited videos of archival footage from documentaries or fiction productions, interviews, short news reports, video clips, and even videos edited with infographics and/or animation. The year 2018 features the first vertically oriented video as it is

an edited excerpt of TikTok videos. The illustrations can include illustrative drawings or magazines or newspapers from the period.

Immersion is achieved through the level of user interaction, but not through the videos, which do not fit the immersive classification system established by Hardee & McMahan (2017) or Watson (2016). The events narrated are in the public interest but do not have the immediacy required of daily news. The information is more characteristic of the atemporal nature of an investigative report. The project was launched in March, due to the fact that International Women's Day is on March 8. It was also released at a moment marked by “an upturn in misogyny,” as explained by its coordinator, Paloma Torrecillas (RTVE Play, 2023). The product is an in-house production of the RTVE Lab.

Figure 7. Website for cell phones



Source: RTVE Lab

In terms of narrative aspects, the user's role in this project is that of an active participant as she has to enter her year of birth and direct her own browsing experience (Dolan & Parets, 2016). The viewer exists in the universe of the product as a character and has an influence on the story that unfolds. The immersive experience begins now the user enters her birth year and continues when events that marked her adolescence appear in videos, press cuttings, photographs, and texts. By connecting with the participant's past, the content itself appeals on the one hand to her awareness of her past, and on the other to the emotions associated with the memory.

The videos do not include any narrators, except for one interview. In cases where there is an explanatory infographic in the video, this guides the narration. The user does not physically interact with any of the elements of the story, but she does interact with the story's development.

The proactive nature of the experience places its level of interactivity at medium (Berenguer 2004) and the user mode (Gifreu, 2013) is that of an interactor engaging with the interface in her browsing choices and an active participant in the development of the story.

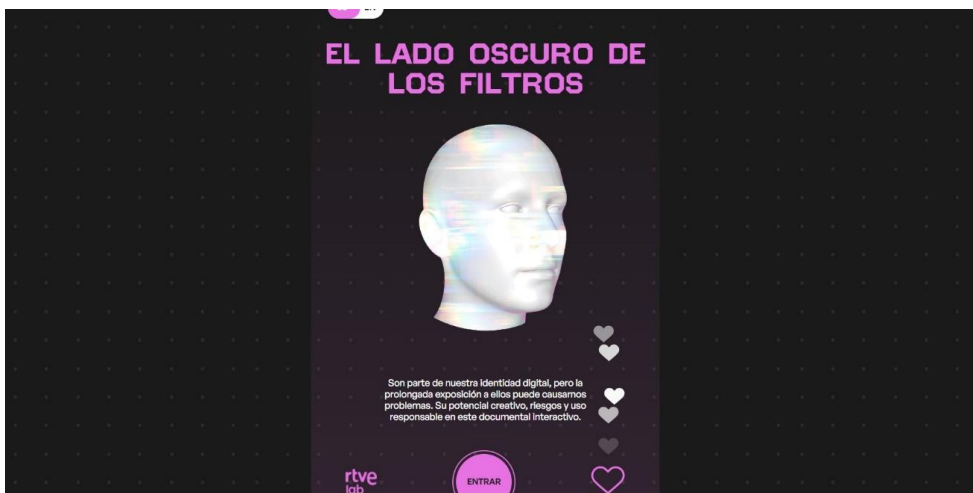
The transitions in the videos are made by cuts and they use ambient noise, except for the advertisements, which have heterodiegetic music. Ambient noise predominates in the videos.

The level of prosocially oriented immersion in this project lies somewhere between *Rescate en el Mediterráneo* and *Cadáveres de Hormigón*. The user's proactivity level is medium, but her role is that of an active participant. As noted above, due to the evocative nature of the content, the user's active participation appeals directly to her emotions. In this case, the interaction is not an exercise of empathy with the other but an exercise of memory of the user's own past, connecting directly with her own emotions in a way that enhances the immersive experience. It is therefore clear that this project leads to both place illusion and plausibility illusion (Slater 2009). The creators have made every effort to present the most significant events of the user's adolescent years to give her the feeling of "being there," although in this case, "there" is not just a place but a period in the past. The interactive nature of the experience also leads to plausibility illusion, making the user believe that what is happening is real, given that it was in fact real in the past. According to Moñivas' model (1996), *8M: cómo el machismo marcó nuestra adolescencia* is a project that mainly promotes behaviors of supportiveness and tolerance while making the viewer delve into her memories.

### 3.5. *El lado oscuro de los filtros*

*El lado oscuro de los filtros* ("The Dark Side of Beauty Filters") is an interactive documentary on the creative potential, risks, and responsible use of beauty filters, accompanied by various resources, including a test to gauge the viewer's level of concern about personal image. *El lado oscuro de los filtros* "has a transmedia version on social media platforms, where exclusive content and augmented reality filters bring the project closer to its original focus" (*El lado oculto de los filtros*, 2023). Like the examination of *Rescate en el Mediterráneo*, the analysis here focuses on the main product, i.e., the webdoc.

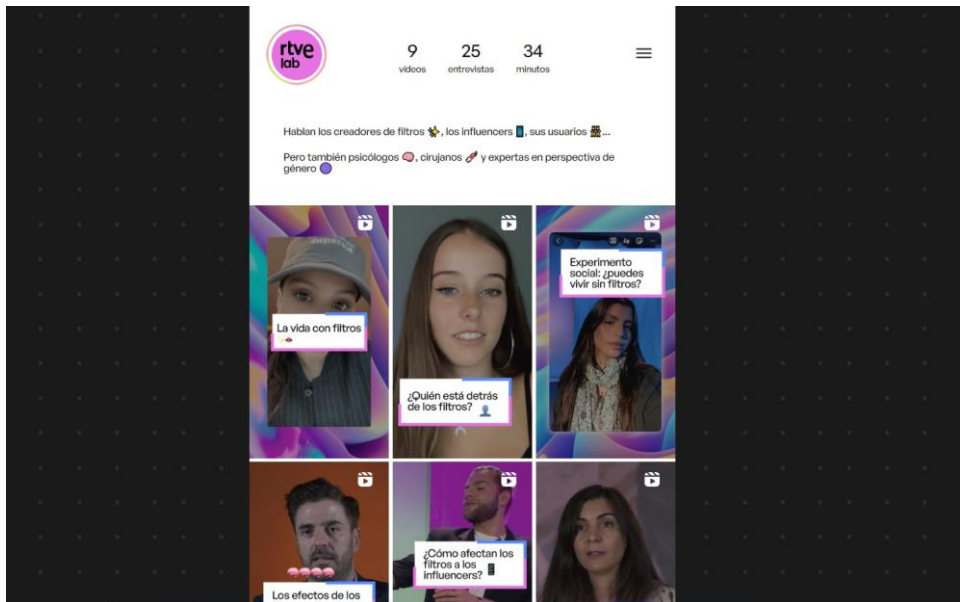
Figure 9. Home page for *El lado oscuro de los filtros*



Source: RTVE Lab

In terms of technological features, this webdoc consists of nine videos, all of them vertical with a 9:16 aspect ratio embedded in a larger background. The pieces contain superimposed infographics, captions, subtitles, and filters. Although they can be viewed on the website, they have a reel format characteristic of social media platforms. The method of distribution is the website, which can be accessed on computer, tablet, cell phone, or smart TV. As Cuéllar explains, “the project is structured to channel the experience. The social media reels are separate because they belong to the campaign that links to the website” (Santana 2024, p. 1).

Figure 10. *El lado oscuro de los filtros* website



Source: RTVE Lab

The transmedia mode is strategic (Scolari, Jiménez & Guerrero (2012, p. 146) and native (Santana 2023, p. 144-145).

As for its subject matter, product concept, and content type, this webdoc contains “25 interviews, more than 15 hours of footage condensed into 34 minutes, and nine videos” with testimonies by psychologists, gender experts, plastic surgeons, influencers, and users, which can be viewed in any order (*El lado oculto de los filtros*, 2023). In addition, the website offers a short 12-question test endorsed by Spain’s General Council of Psychology to help users identify their own level of concern about their personal image.

All of the website’s content is found on a menu with three sections: feed/video, test, and useful resources (self-care, ask for help, help others). The subjects dealt with in the nine videos are: “Life with filters” (3’14”); “What is behind the filters?” (3’09”); “Social experiment: Can you live without filters?” (4’27”); “The effects of filters on mental health” (3’05”); “How do filters affect influencers?” (10’12”); “Why are there more filters for women?” (2’20”); “More filters =

more cosmetic surgery?” (1’23”); “Living while hating your face” (2’47”); and “How to prevent a disorder?” (2’47”).

The project breaks with the conventional linear narrative by allowing users “to view the webdoc in any order they choose without this affecting their comprehension,” explains Cuéllar (Santana 2024, p. 1). The fact that users can choose what to view at any moment and how to view it gives them greater freedom than a linear format offers. This chosen interactivity gives viewers a degree of autonomy that helps them to create a more immersive experience.

Applying the categorization developed by Hardee & McMahan (2017), this project could belong to the second category: immersive public service content, pieces oriented at disseminating important information in the public interest for a general audience. According to Watson’s classifications (2016), it would be current news with a duration of a few minutes.

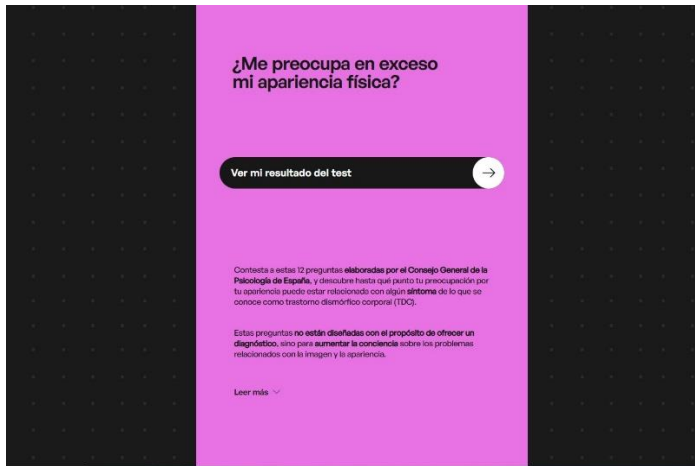
On the narrative level, the user’s role in this webdoc is that of an active observer when browsing the website and choosing the content (Dolan & Parets, 2016). Users choose their own adventure, deciding what to view first, whether to view all or only a few of the videos, whether to access the resources or the test, and whether to do everything in a single sitting or at different times. In short, users have decision-making power (Slater 2009). This ability to jump around while viewing gives the documentary a non-linear structure. Each video has independent content.

There is no narrator in any video except for “Social experiment: Can you live without filters?” (4’27”), which features the voice-over of the journalist who interviews the three young women taking part in the experiment. Captions guide the story in the other videos. In the video “How do filters affect influencers?” (10’12”), in addition to the captions, the influencers themselves introduce the subjects by reading questions written on cards by the RTVE Lab team.

The level of interactivity (Berenguer, 2004) in the webdoc is medium, while the user experience in the test is strong. The user mode (Gifreu, 2013) is that of an interactor engaging with the interface when choosing where to browse, and an active participant (Dolan & Parets, 2016) in the development of the story when answering the test. It is in the test that the user becomes the protagonist of the story. The user is asked the questions directly in the first person, which facilitates personification. Instead of asking “are you too worried about your physical appearance?”, the questions are asked in the first-person using verbs in the present tense. This turns the “there” described by Slater (2009) in his concept of place illusion into a “here” and a “now.” As the user, I must look at myself and answer my own question: “Do I worry too much about my physical appearance?” Plausibility illusion is also present due to the fact that the user believes that this reality exists and is really occurring.

The transitions in the videos are made using cuts, wipes, and curtains. There is no heterodiegetic music that could distract the viewer.

Figure 11. Test on website



Source: RTVE Lab

Although it is a topic of concern to society, the danger of beauty filters for young people is not strictly a current issue. The project is an in-house production of the RTVE Lab.

*El lado oscuro de los filtros* has a high level of interactivity, similar to *Rescate en el Mediterráneo*. Both of these non-linear interactive documentaries give users a lot of freedom and turn them into active participants in the experience. While *Rescate en el Mediterráneo* positions viewers inside the story by asking them to play the role of an immigrant or through direct questions, in *El lado oscuro de los filtros* the same effect is achieved with a personalized test that makes users confront their own reality in relation to beauty filters. Place illusion and plausibility illusion (Slater 2009) also play an essential role in facilitating immersion and, consequently, eliciting empathy. In this case, as in the case of *8M: cómo el machismo marcó nuestra adolescencia*, the empathy is not for the other, but an emotional connection with oneself that facilitates personal and social awareness. Applying Moñivas' approach (1996), this is a product that promotes behaviors of supportiveness and tolerance for oneself, while preventing antisocial or pathological behaviors.

#### 4. THE PROSOCIAL NATURE AND IMPACT OF THE PRODUCTS

The public service objective of the RTVE Lab, like the public broadcaster as a whole, predisposes it to the production of content that promotes prosocial behaviors. The social orientation of these products is evident in the fact they explore narratives with the potential to become valid tools for the dissemination of information or educational resources addressing subject matter beyond current events or that require a level of exploration that the daily agenda does not allow for. For César Peña, "the public service objective is present in the Lab's projects and that is why the projects chosen are always social or cultural" (Santana 2023, p. 5). The director of the RTVE Lab explains:

«We give visibility to content that goes unnoticed for various reasons but that is important and affects society, societal balance, and public well-being. We highlight it from a journalistic perspective, with journalists' tools of data collection, verification and comparison, prioritization, etc., and we analyze its impact. Part of the public service, in addition to what I have just explained, is to develop a narrative that gets people's attention and to get around the blind spot created by monotony, etc., that hinders a level of visibility or urgency in keeping with the impact of the situation described» (Santana 2024, p. 3).

The content of all of the products is purposefully social. In the case of *8M: cómo el machismo marcó nuestra adolescencia*, the focus is on the misogynistic reality of mass media messaging in past decades. It is an issue that we had forgotten, which, as Cuéllar explains, “the surprised reactions of the audience confirm” (Santana 2024, p. 3). Its intentionally prosocial nature is evident not only in the content and its treatment, but also in the self-awareness test and the resources that the website makes available to users. The test, endorsed by Spain's General Council of Psychology, provides you with a result that grades your level of concern about your physical appearance and suggests qualified, registered psychologists if necessary via the website: [www.buscopsicologo.es](http://www.buscopsicologo.es).

The impact of this product is reflected in the awards it has received, such as the Silver Medal and the Public Choice Award at the 2023 Lovie Awards in the Social Impact section, nominations for the Prix Italia, the Prix Europa, and the FIAT/IFTA awards, and its participation in the European Union Broadcasting Formats Forum, which recognizes the showcases the most innovative television formats in each season (Prensa RTVEc, 2023).

As Sundar et al. (2017) point out, immersive journalism has the potential to transport users to places where they would probably not get to on their own, immersing them in a story in which the environment has an emotional impact. In *Rescate en el Mediterráneo*, the intention to elicit empathy is explicitly stated: “the images, filmed on board the ship and the rescue boats on the night of September 21, 2022, facilitate empathy to an extent rarely seen before for migrants who would have faced certain death if they hadn't been rescued” (Prensa RTVE, 2023a). For Cuéllar, this project “focuses on largely unknown aspects of a reality that tends to be reported in clichés, resulting in a lack of attention due to the repetitive and monotonous nature of the conventional discourse” (Santana 2024, p. 3).

In the case of *Cadáveres de Hormigón*, Cuéllar explains that the project “tries to reactivate the viewer's attention in order to address this ‘oblivion’ [of forgotten housing developments] through a proactive, shareable narrative” (Santana 2024, p. 3). The project has been used by educational institutions, as Peña explains: “We've received feedback from universities of architecture that wanted the models and have used them” (Santana 2023, p. 4).

In *El lado oscuro de los filtros*, the webdoc objectively exposes the damage caused by psychological dysfunction and addiction caused by perceptual distortion. “It is a situation of vulnerability that affects a significant group or segment of society. In addition to providing explanations, the project represents an attempt to offer solutions,” explains Cuéllar (Santana 2024, p. 3). According to its coordinator, Paloma Torrecillas, “in addition to the impact [the product] has had on women, teachers have used it in their classes as quite a powerful educational tool” (RTVE Play, 2023). For Cuéllar, “we need to show that we have progressed, we've



advanced, and we've won and that it makes sense to keep up the battle. That is public service” (Santana 2023, p. 16).

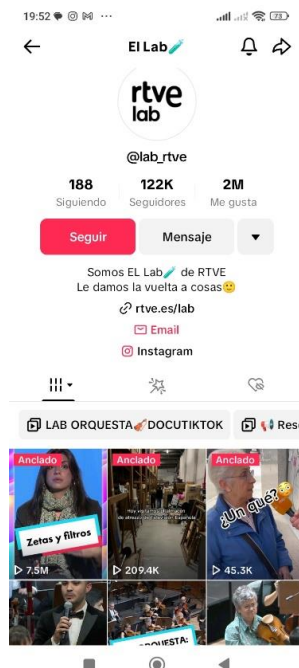
Table 2. Views of RTVE Lab products analyzed

	Unique visitors	Visits	Page views	Time per page
March 8 Special	636,215	922,835	2,332,637	00.02.32
<i>Rescate en el Mediterráneo</i>	3,627	4,176	17,546	00.01.47
<i>Cadáveres de Hormigón</i>	6,083	7,686	12,384	00.02.56

Source: Prepared by authors with RTVE data.

Of the products analyzed that the RTVE Lab has records for, the one with the most views on the website is the interactive explainer *8M: cómo el machismo marcó nuestra adolescencia*, with 636,215 unique visitors and 2,332,637 views. In second place is the transmedia project *Cadáveres de Hormigón* with 6,083 unique visitors and 12,384 page visits. In third place, the webdoc *Rescate en el Mediterráneo* has 3,627 unique visitors and 17,546 page visits. For technical reasons, there is no website user data for *El lado oscuro de los filtros*. However, its reel with the most views on TikTok has been viewed 7.5 million times (RTVE Lab, @lab\_rtve/video).

Figure 12. TikTok screenshot



Source: RTVE Lab

## 5. CONCLUSIONS

In 2023, the RTVE Lab made six products for its platform, four of which (the four analyzed here) have markedly social content. Although none are VR productions, they all achieve a very high level of user immersion, mainly thanks to their interactivity, place illusion, and plausibility illusion (Slater 2009). This is reflected in the technological features, narrative aspects, and conceptual elements that underpin them, which are outlined below.

The interactive documentaries *Rescate en el Mediterráneo* and *El lado oscuro de los filtros* both have features that generate a high level of user immersion. Although the user's role is that of an active observer, each format contains a section in which the interactivity forces the user to become an active participant: in the first, by making users play the role of an immigrant, and in the second, through a first-person test in the present tense. In both products, place illusion and plausibility illusion (Slater 2009) are promoted by the immersive experience, as viewers feel as if they are at the scene of the events depicted and that those events are really occurring.

Moreover, the non-linear nature of both products, allowing users to view the content in any order they choose without this affecting their comprehension of the story (Santana 2024, p. 1), increases their sense of immersion and of control over the product by giving them greater freedom. In both cases, the level of interactivity (Berenguer, 2004) is medium throughout most of the experience, but it rises to strong when the user becomes an active participant. Navigating around the audiovisual story is also active, while its observation is passive; in the interactive sections the user's role grows to the point of becoming a participant who actively influences the story.

The user mode (Gifreu, 2013) in both webdocs is not only that of an interactor engaging with the interface while browsing, but also that of an active participant in the development of the story. The audiovisual language used also helps to increase the immersive experience: in *Rescate en el Mediterráneo* through the use of POV shots and bodycams; and in *El lado oscuro de los filtros* through the use of 9:16 vertical video, with a structure and duration typical of a reel. In general, the transitions are simple, ambient noise is prioritized, and heterodiegetic music is omitted to avoid distracting the user from immersion in the story. Although the transmedia mode in *Rescate en el Mediterráneo* is tactical and in *El lado oscuro de los filtros* it is strategic, both enrich the user's immersive experience through multiple content elements and interactions. Both are native products that are coherent with and independent from their social media products. According to Hardee & McMahan's model (2017), both webdocs provide immersive public service content, with what Watson (2016) would classify as immersive documentary-style content in *Rescate en el Mediterráneo*, and current news in *El lado oscuro de los filtros*.

The issues addressed in both projects are purposefully prosocial in line with the public service mission of the RTVE Lab and of the public broadcaster as a whole. In *Rescate en el Mediterráneo*, there is an intention to raise awareness about what migrants experience trying to cross the Mediterranean, while in *El lado oscuro de los filtros* the aim is to raise awareness about the psychological problems that can be provoked by the use of beauty filters. Both projects involve collaborations with other RTVE programs and with external organizations (Médecins sans Frontières and Spain's General Council of Psychology).

The two projects generate empathy (Baía 2023) in different ways. In *Rescate en el Mediterráneo*, the video puts viewers in the shoes of the rescuers until they come to the interactive block, *En puerto*, where for the first time they are placed in the role of a migrant being rescued. This strategy allows viewers to experience both sides of the issue, taking the perspective of both rescuer and rescued. The webdoc *El lado oscuro de los filtros* employs a similar strategy. While users sympathize with the individuals who appear in the videos talking about their own experiences, a moment comes in which a 12-question test requires them to interact in the first person and in the present tense, thereby shifting from empathy for others to an emotional self-connection that raises awareness about themselves and their society.

In the cases of the two exclusively interactive products, *Cadáveres de hormigón* and *8M: cómo el machismo marcó nuestra adolescencia*, interactive features provide a high level of user immersion. *Cadáveres de hormigón* also has a strategic transmedia mode, with a production process and narrative design developed jointly with the current affairs program *En Portada*. By filming a linear documentary not only with television in mind but also so that all the footage could be used in an interactive project and a social media campaign, a single block with native coherence was created in a collaborative work between two different areas of RTVE: Current Affairs (*En Portada*) and the Lab (Innovation) (Santana 2024, p. 2).

Both these projects place the viewer in the role of active observer. In *Cadáveres de Hormigón*, the user's role (Dolan & Parets, 2016) in viewing the images of the buildings in AR also requires physical interaction and isolation from the user's reality in order to enter another reality, resulting in a strong level of interactivity (Berenguer, 2004). Here, the user's role shifts from that of active observer to active participant and protagonist in the story. In the case of *8M: cómo el machismo marcó nuestra adolescencia*, it is a medium level of interactivity (Berenguer 2004) but with active participation (Dolan & Paret 2016) at all times. Moreover, like the webdoc *El lado oscuro de los filtros*, this project generates empathy by appealing to the user's own feelings and memories. The personal and social awareness raised in this way gives added value to the immersive experience. In both projects, the user mode (Gifreu, 2013) is that of an interactor engaging with the interface and an active participant in the development of the story. Both are purposefully prosocial and pursue the aim of raising awareness.

The public service objective of the RTVE Lab is evident in the projects analyzed and implicitly entails a choice of topics with a social dimension and a quest to offer users an empathetic experience. The prosocial nature of these products arises from their exploration of narratives that can become valid tools for disseminating information or educational resources, and from the choice of topics that are not currently on the public agenda (Santana 2023, p. 5). This prosocial behavior is reflected in the advertising.

The transmedia mode and the collaboration with other RTVE departments or with institutions external to the public broadcaster enrich the story, expand its scope, and augment the message.

All of the projects analyzed are distributed on the RTVE Lab website ([lab.rtve.es](http://lab.rtve.es)) and the viewing options are via the web on computer, tablet, cell phone, or smart TV connected to the internet.

This study has demonstrated that the immersive and interactive experiences offered by these products has attracted large numbers of visitors, with 2,332,637 viewers in the case of *8M: cómo el machismo marcó nuestra adolescencia*, and 7.5 million views of *El lado oscuro de los filtros* on TikTok.

In his study of immersive journalism in Spain, Barreda (2017) concluded that immersive content up until that time lacked interactivity and that therefore its potential was not being fully realized:

«News production to date has not exploited the full potential of virtual reality for journalistic purposes; for example, the potential of such content to produce a feeling of presence, which is associated with the immersive nature of the medium but also with interactivity, remains underexploited» (p. 14).

In this sense, the projects analyzed in this study constitute an advance in the direction proposed by Barreda. This advance has been in the implementation of interactivity, which has replaced the need to use 360° video.

In all of the cases analyzed, the use of interactivity serves to provide users with a first-person perspective, allowing them to empathize with the story and its protagonists and increasing the feeling of presence, place illusion, plausibility illusion, and immersion. Although all of the topics explored are newsworthy, they are examined from a perspective that differs from the treatment such information would receive in a daily news report. Adopting Moñivas' perspective (1996), all of the projects analyzed prevent antisocial behaviors and promote behaviors of supportiveness, tolerance, and helpfulness.

Whether this impact on the audience may take a step beyond empathy and social awareness toward individual agency is a question for future research (Baía, 2023).

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