Viewer's immersion in 360º video features. Comparative analysis of "In the skin of a refugee" and "Fukushima, polluted lives"

Inmersión del espectador en el reportaje en 360º. Análisis comparativo de "En la piel de un refugiado" y "Fukushima, vidas contaminadas"

ISSN: 1696-019X / e-ISSN: 2386-3978

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Received: 08/05/2018 / Accepted: 01/06/2018

Abstract:

The aim of this paper is to identify some of the narrative resources being used in immersive features to increase in the viewer the sensation of being inside the represented reality represented. In order to do, so we have used a blended methodology based on content analysis and in depth interviews with their creators, to perform a comparative analysis between 2 Spanish projects. The

Recibido: 08/05/2018 / *Aceptado*: 01/06/2018

Resumen:

El objetivo de este artículo es identificar algunos de los recursos narrativos que se emplean en los reportajes inmersivos en vídeo en 360º para favorecer en el espectador la sensación de encontrarse dentro del acontecimiento narrado. Para ello, realizamos un análisis comparativo de dos proyectos españoles a partir de una metodología mixta basada en análisis de contenido y en entrevistas en profun-

How to cite this article:
Benítez de Gracia, M. J., Herrera Damas, S., (2018). Viewer's immersion in 360º video features. Comparative analysis of "In the skin of a refugee" and "Fukushima, polluted lives". *Doxa Comunicación*, 26, 191-210.

selected features are "En la piel de un refugiado" ("In the skin of a refugeee"), published by El Confidencial in 2016 and "Fukushima, vidas contaminadas" ("Fukushima, polluted lives"), also published that year by El País. Results indicate the coincidence in the use of some narrative techniques, but also great differences when using other resources. This fact certifies the experimental nature of this type of contents.

Keywords:

Immersive storytelling; feature; 360º video; innovation; virtual reality.

didad con sus autores. Los reportajes analizados son "En la piel de un refugiado", publicado en 2016 por El Confidencial, y "Fukushima, vidas contaminadas", publicado ese mismo año por El País. Aunque algunas técnicas narrativas coinciden, observamos también grandes diferencias en el uso de otros recursos, lo que evidencia el carácter experimental de este tipo de proyectos.

Palabras clave:

Periodismo inmersivo; reportaje; vídeo en 360º; innovación; realidad virtual.

ISSN: 1696-019X / e-ISSN: 2386-3978

1. Introduction

Since 2014, the appearance of a series of technological devices to capture 360º video, of stereoscopic sights mostly known as VR glasses (virtual reality) and the support of two of the main Internet platforms –Facebook and Google– have favored the development of so-called immersive journalism. This concept was defined in 2010 by the researcher and journalist Nonny De la Peña as "the production of news in a way in which people can have first-person experiences of the events or situations that are described in the news" (De la Peña, *et al.*, 2010: 291).

Before then, immersive journalism had been linked to content that offered a certain grade of interactivity through the computer screen. Some of the works[1] of this first stage were produced by De la Peña and her "The emblematic group": "Gone Gitmo" (2007), "The ipress experience" (2009), "Cap & Trade" (2010), "Hunger in Los Angeles" (2012), "Syria" (2014) and "Kiya" (2016) while others were produced by large media. This is the case of "Harvest of Change", published in 2014 by *Des Moines Register*; "Is the Nasdaq in Another Bubble?", in 2015 by *The Wall Street Journal*, or "6x9: a virtual experience of solitary confinement", published in 2016 by *The Guardian*.

However, the greatest contributions to immersive journalism were made mainly at the end of 2015 by some of the leading media in the United States –*ABC News*, *Associated Press*, *CNET*, *Discovery*, *National Geographic*, *Frontline*, *Huffington Post*, *Sky News*, *The New York Times*, *The Wall Street Journal*, *The Washington Post*, *USA Today* and *Vice News*– (Hardee & McMahan, 2017: 2).

In Spain, *El Español* was the first news outlets to produce this content in 2015 with three interviews to the leaders of the different political parties during that year's electoral campaign. Although the production has not been as abundant as the one in the United States or in the United Kingdom –in the latter case, thanks, above all, to the BBC's drive (Pérez Seijo, 2016)–, it is worth noting the commitment of some media such as *RTVE Lab* which published 20 pieces between January 2015 and December 2017) or *El País* (35 pieces in this same period). More recently, local and regional media such as *Diario Sur* (23 pieces), *Castilla La Mancha Media* (19 pieces), *Canal Extremadura* (16 pieces), *Diario de Navarra* (10 pieces), *Diario Montañés* (5), *Diario de Sevilla* (1) and *Faro of Vigo* (1) have also joined this production with experimental works.

[1] Can be consulted at www.immersivejournalism.com

2. The immersive feature: concept and basic foundations

Framed within a *cross*-and *transmedia* journalistic scenario (Martínez & Torrado, 2017: 153), the main peculiarity of immersive journalism is the possibility of "moving" the spectators to the event, giving journalists "the ability to create in the audience a sensation of being present in the distance, in places of journalistic interest and in events" (Biocca & Levy, 1995: 137). This is possible through a representation in which the viewer is located in the center of a spherical stage, with a first-person perspective and a mobile point of view that can change freely. This possibility has its origin in the games narrative (Domínguez: 2010 and 2013), where the user, represented through an avatar, interacts within a virtual environment generated by computer (Martín, 2015). This new format shares traits with other interactive journalistic formulas such as the *situated documentary*, the *webdoc*or interactive documentary, and the *newsgames* or informative videogames. However, the 360º video narrative presents the singularity that the viewer cannot intervene in the course of the action. Interaction refers here to the possibility of accepting the perspective previously chosen by the director or opting for a different one, placing himself in alternative parts of an event and, in some cases, accessing additional information (Pryor, 2010).

This type of representation has contributed to the appearance of a new modality of a classic journalistic genre: the immersive feature, that can be defined as:

> "A model of reality representation that narrates and describes facts and actions of human interest from real images recorded in 360º video and that uses immersive technologies to generate in the participant the illusion of being present in the event from the first-hand perspective from which the viewer can better understand the circumstances, identify with the protagonists and even experience the emotions that accompany the reality that is being represented" (Benítez & Herrera, 2017: 165).

To reach this definition, we have followed a double approach. On the one hand, we have conducted an exhaustive literature review on different contributions from:

i) the study of literary, journalistic and audiovisual narratives (Genette, 1989, Cebrián Herreros, 1992, Martín Vivaldi, 1993, Gaudreault & Jost, 1995, Chillón, 1999, Martínez Albertos, 2000, Casetti & Di Chio, 2007, and Carmona, 2010);

ii) the study of immersive narratives (Lunenfeld, 1993, Ryan 2004 and 2005, Dinmore, 2008, De la Peña, *et al.* 2010, Domínguez, 2013, Gifreu, 2013, Dolan & Parets, 2015, Martín, 2005, Jiménez, Paíno & Rodríguez Fidalgo, 2016, Domínguez, 2017 and Hardee & McMahan, 2017); and

iii) the study of the psychological components implied in virtual environments (Heeter, 1992, Ijsselsteijn, Freeman & De Ridder, 2001, Cohen, 2001, Sánchez Vives & Slater, 2005, Igartua, 2007, Muñiz & Igartua, 2008, Slater, 2009, Slater, *et al.*, 2009 and 2010, Tal-Or & Cohen, 2010 and Igartua & Fiuza, 2018), among others.

Along with this theoretical review, we have viewed more than 1,000 features of this kind published by leading national and international media, during the last three years. From this study, we have obtained a series of traits that help us define the basic characterization of this feature. These traits can be classified into four groups depending their relation to: basic journalistic characteristics, formal characteristics, psychological characteristics and technical characteristics (Benítez & Herrera, 2017). For this comparative analysis, we will focus on the first two groups.

ISSN: 1696-019X / e-ISSN: 2386-3978

ISSN: 1696-019X / e-ISSN: 2386-3978

Within the first group, we have studied their date, length, distribution platform, theme, main purpose, secondary purpose and scope of the information. The second group includes a series of narrative resources that contribute to generate in the viewer a sense of presence, that is, a "sensation of being inside the virtual environment indicated by the way of responding to it as if it were real" (Slater, *et al.*, 2009: 200). This concept has been examined by several authors to analyze the human response in virtual environments (Lanier, 1992, Steuer, 1992: 104, Heeter, 1992: 262, Lombard & Ditton, 1997, Lee, 2004: 32). However, there is still no consensus in its definition (Lombard & Ditton, 1997; Schuemie, *et al.*, 2001), and sometimes it has even been confused with the idea of immersion (Witmer & Singer, 1998; McMahan, 2003; Brown & Cairns, 2004). To avoid ambiguities, in this work we will refer to immersion as an objective property of a system that can be evaluated from a series of parameters. Presence, however, would be the subjective human response to said system (Slater, *et al.*, 2009: 195; Sánchez Vives and Slater, 2005: 333). In this way, "presence" corresponds to a perceptual experience, while "immersion" corresponds to the objective property of a system that can be measured independently of the human experience it provides (Sánchez-Vives and Slater, 2005 and Slater, *et al.*, 2009: 195).

In the same way that the concept of presence has not reached an agreement, neither have the different techniques carried out for its measurement (Ijsselsteijn, 2002; Sánchez-Vives & Slater, 2005). Overall, presence has been measured by reception studies through questionnaires applied to participants, during or after, an experience of presence. Regarding journalism, reception studies have also been carried out to measure the response of the audience after exposure to immersive narratives (Grassi, Giaggioli & Riva, 2008) and, more recently, to 360º video content (Jones & Callaghan, 2016; McRoberts, 2017; Jones, 2017; Archer & Finger, 2018).

Despite the lack of consensus regarding its measurement, three factors seem to be critical to cause sense of presence: media form, media content and user characteristics (Lombard & Ditton, 1997; Ijsselsteijn *et al.*, 2000: 3960). Media form relates to the technical properties of the equipment. Media content relates to the contents and user characteristics having to do with to the disposition, knowledge and experience of users when exposing themselves to this type of narrative. The impact of the latter, generally obtained through reception studies has been criticized due to the intervention of some subjective factors that decrease their reliability (Diemer, *et al.*, 2015: 5). Despite this, we consider them to still be important to the development of this type of narrative.

Within the second group, and following Domínguez (2017: 4), we will approach our study from the perspective of the factors related to the content and not taking as much into account the technological system that has been used. Briefly, the 3 formal characteristics of immersive 360º video features are:

i) It represents a realistic spherical scenario. This requires the disappearance of devices that can imply a loss in the fidelity of the representation. Among them:
   a. The figure of the journalist and the recording team. When they are not erased, the viewer sees them located right in the scene, which can break its realism.
   b. Any form of editing, since it also evidences the mediation (Men, *et al.*, 2017: 286). In this sense, using sequence shot brings fluidity. This same spatial continuity guarantees that the represented temporality matches the (supposedly) real one (Casetti & Di Chio, 2007: 157).

c. Overprints (such as labels, graphics, windows, subtitles, credits, etc.) since they add an artificial touch (Lombard & Ditton, 1997).

ii) The users control the point of view and chooses their vision angle by moving their head. Following Slater, the first person perspective favors the existence of a subjective point of view that the viewers becomes their own (Slater, *et al.*, 2010: 4). Two resources are needed for it:

a. Use of a primary internal focus. The viewer "shares" the identity of the character, thus reaching a greater degree of approach (Gaudreault & Jost, 2010: 141 and Domínguez, 2013: 183).

b. Situation of the height of the camera at the viewer's eye level. In this way, the viewer's gaze assumes the position of another character, who can be himself or a character of the event (De la Peña, *et al.*, 2010: 291 and Domínguez, 2013: 185).

iii) It allows different types of interaction and participation from the viewer. The interaction can be understood here as a subjective experience of presence. Following Heeter (1992: 262), this interaction can be of three types:

a. Social: the characters "interact" with the viewer within the story through looks, gestures or voices;

b. Environmental: the environment seems to recognize the presence of the viewer and reacts to it. Although in 360º video this answer is merely apparent, some actions can be simulated such as riding on a means of transport or walking.

c. Personal: According to different studies (Botvinick & Cohen, 1998: 756; Weil and De-la-Peña, 2008; Wynants, Vanhou and Bekaert, 2008; Petkova & Ehrsson, 2008: 5, Slater, *et al.*, 2010: 1; Banakou, Groten & Slater, 2013 and Decock *et al.*, 2014) when viewers sees some parts of their body being represented, they accept them as they were their own's.

Regarding the participation of the viewer, three ways can be identified depending on the proximity of the viewer to the characters and to the story (Ryan, 2005 and Dolan & Parets, 2015):

a) Passive observer: the viewer is outside the narrative and his actions are merely exploratory

b) Active observer: the viewer remains outside the narrative, but his actions seem to set the order of the content

c) Passive participant: the viewer exists in the narrative when acquiring, for example, the role of a character. His actions progress through a structured story with some freedom of exploration.

3. Methods

This work aims at identifying some of the narrative resources used in immersive 360º video features so that the viewer feels he is "really" there.

To do so, we have conducted a comparative analysis of two of the first projects produced by the Spanish media. Firstly, we identify their basic journalistic and narratives features in each of them and then we compare them to analyze which ones most contribute to generate this sense of presence.

ISSN: 1696-019X / e-ISSN: 2386-3978

ISSN: 1696-019X / e-ISSN: 2386-3978

As anticipated in the summary, the selected features are "In the skin of a refugee", published by *El Confidencial*[2] on April 18, 2016, and "Fukushima, polluted lives", by *El País*[3] just some days before, on April 30, 2016.

To carry out the study, we have followed a mixed methodology, based on a quantitative technique and on a qualitative one. In the first case, we have conducted a content analysis, a research technique designed that examine certain data to formulate reproducible and valid inferences that can be applied to its context (Krippendorff, 1990: 28). According to Igartua (2006: 181), this technique can be considered one of the most important methods in communication research.

Given the lack of a previous model to analyze this kind of feature, we have a designed our own code (Benítez & Herrera, 2017). It contains 27 variables including date, length, distribution platform, theme, main purpose, secondary purpose and scope. Together with these variables, we have also identified some other ones which are linked to the different immersive techniques related to the content.

Thereafter, we have compared the results with the conduction of in-depth interviews, given the detailed information this technique provides regarding the values, motivations, experiences and feelings of the interviewees (Wimmer & Dominick, 1996: 158).

More specifically, we have interviewed Adriano Morán, head of the 93 Metros production company, in charge of directing and producing the feature "In the skin of a refugee", and Daniel Verdú, journalist, at *El País* and director of "Fukushima, polluted lives". The interviews were recorded and transcribed to classify the information, and to search and identify union nodes that could be related to the variables that have been examined through the quantitative analysis.

Finally, we have confronted the results to gain a better understanding on the issue (Wimmer & Dominick, 1996: 51). In any case, due to the emerging nature of this format, we do not seek to generalize the results but rather to approach their uniqueness in a more profound way, also aiming at opening a reflection on the components that most contribute to taking advantage of its potential.

4. Results

First, we will explain the narrative resources used in "In the skin of a refugee", then the ones used in "Fukushima, polluted lives" and finally we will offer the results of the comparative analysis.

4.1. The use of narrative resources in "In the skin of a refugee"

"In the skin of a refugee" tells the story of a young Syrian man who is surprised by the war in the town where he lives and flees to a refugee center where he is welcomed. Although it was published in *El Confidencial*, the feature was produced 93 Metros company as part of a campaign financed by the Spanish Committee of the United Nations High Commissioner for Refugees (UNHCR).

2 Can be watched at https://www.youtube.com/watch?v=tKLd7S59KCo

3 Can be watched at https://www.youtube.com/watch?v=5pctLtUmvKg

4.1.1. Results of the content analysis

The feature was published on April 18, 2016, in *El Confidencial*. The piece lasts 3:26 minutes and was distributed through the website of *El Confidencial* and on its YouTube channel. Framed in the society section, its main purpose is to show an event in its context whereas its secondary one is to denounce a situation.

The feature uses a subjective camera that attempts to adjust as much as possible the height of the camera to the eyes of the viewer located. Neither the reporter nor the recording team appear in the scene and they are replaced by the person who transports the camera. By doing this, when the viewer looks down, he or she sees the body of the latter and can accept this figure as if it were his or her own body within the story.

From the beginning to the end, the narration follows a linear order. The represented action can be summarized in three moments: i) the bombing of the area where the main character resides, ii) the following escape in a vehicle and iii) the arrival to the refugee center. The transition between these three moments is done through a fadeout. The feature does not add any graphic or textual overprint.

Regarding the camera, we observe intentional use in some of the movements. Although the camera remains stable at the height of the viewer's eyes, in several sequences an horizontal movement is made to simulate the viewer's progress within the scene. This is achieved when the person carrying the camera in his head walks or is moved inside a vehicle.

As an exception, this stability is broken in the first sequence, when the bombing takes place. At several moments during the explosion and coinciding with the sound it produces, the camera shakes abruptly, to simulate the vibration of the building as a result of the bombing. Then, the camera stabilizes for a few seconds, but when several explosions are heard again, it follows one of the characters as he flees, shaking and moving quickly and bewildered. This confusion is also intensified by the use of a soundtrack.

The feature does not include a *voice-over* to guide the viewer. Instead, different resources are used to place him or her within the scene and to direct his or her attention. Among them, the use of sound elements stands out. From the very beginning, the feature starts with a Muslim prayer that places the narrative in an Arab context and within a war zone, since an explosion can be heard. Immediately afterwards, several sirens can be heard and the voice of a character who anxiously enters in the room where "the viewer" is and ask him or her to come out from there.

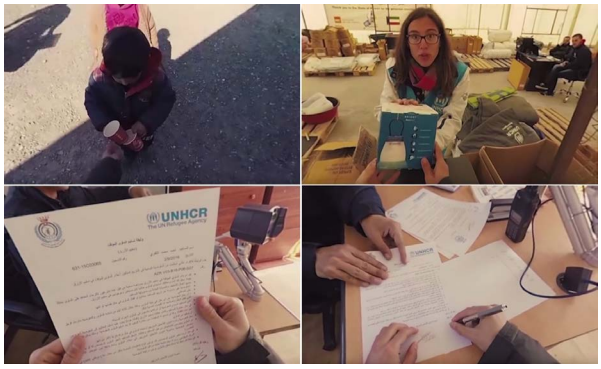
The volunteers at the refugee center also look at the camera and go directly to "the viewer" explaining to him or her where they are and requesting their attention. For example, at the sequence from minute 1:44 a volunteer appeals directly to the viewer: "Calm down. Now you are safe. Welcome to the Azraq refugee camp" (minute 1:47). This volunteer also leads the viewer through the camp, which encourages their personal interaction and provides them with a role of passive participant. This means that the viewer acquires the role of one of the characters, although they have no capacity to directly intervene in it or to modify the course of the narrative.

As can be understood, this is a pretended participation but the viewer has to decide whether he or she wants or no to believe what they suggest. This resource can be found on several occasions: a child proposes to play with some dice cups, a

ISSN: 1696-019X / e-ISSN: 2386-3978

collaborator brings him some glasses for an ocular recognition, another one brings him a document to sign it, a volunteer offers clothes and supplies for their stay, etc. (Picture 1):

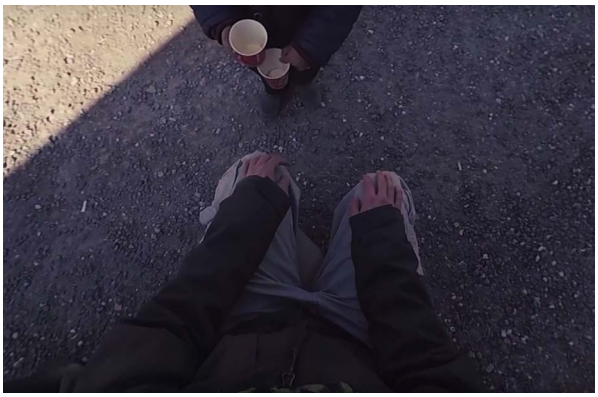
Picture 1: Frames of "In the skin of a refugee"



Source: YouTube

As indicated, the viewer is represented through a figure, so when he or she looks down, he or she observes a body with which they can identify. For this purpose, an actor wearing neutral clothes has been used. Although his age is not very defined, it can be easily deduced that he is a young man (Picture 2):

Picture 2: "In the skin of a refugee"



Source: YouTube

ISSN: 1696-019X / e-ISSN: 2386-3978

4.1.2. Results of the in-depth interview

As responsible for the production of this feature, recorded in Jordan, Morán confirmed that it was a commission promoted and financed by the Spanish Committee of UNHCR to raise awareness about the drama many refugees live in. Producing this feature took a team composed by ten people. Among them, a camera, a sound technician, a camera assistant, as well as several producers, journalists and screenwriters. For Morán, the narrative approach prior to the recording is critical and of mayor importance:

> "The first thing you have to think about is how will the viewer see it. What do you want to tell. If you want to narrate a personal issue you will have to place the camera at the height of the hypothetical character that is there. In this case, given that this is a first person story, we have tried to maintain the same point of view" (Morán, personal interview, 2016).

Regarding the camera movement, Morán points out that "it is preferable that it is fixed and reduce the movement as much as possible". Firstly, because, when there is movement, it is easier for a "cutting failure" to occur when trying to unite the different scenes. This problem is further accentuated "when the camera turns very frequently since you get dizzy and cannot stand it." In the case of "In the skin of a refugee," Morán points out that they used a helmet system on the head of the main character represented in the narration to provide the story with more subjectivity.

He also points out that the length of the shots has to give the viewers enough time so that they realize where they are. However, he says, it is also possible to play with this resource depending on the effect you want to achieve. In this regard, he highlights the first sequence of the feature aimed at generating distress in the viewer:

> "It is a very rare shot in motion, where the camera destabilizes and moves abruptly. A running man can be seen. What we were looking here is precisely the viewer's confusion" (Morán, personal interview, 2016).

Finally, Morán also adds that it is important a spatial treatment of the sound surrounding everything around the action. Here the sound was added in a studio during the postproduction process to generate a state of anxiety that becomes even more suffocating when the feature is visualized through the glasses:

> "You are at home. Now the sound comes from behind. If you have the glasses, you automatically direct your attention there and see the person who is shouting" (Morán, personal interview, 2016).

4.2. The use of narrative resources in "Fukushima, polluted lives"

4.2.1. Results of the content analysis

"Fukushima, polluted lives" was published on April 30, 2016, by *El País*. It is a 9:10 minute piece that appears along with an extensive feature in the *online* section of *El País Semanal* Sunday supplement and in *El País* YouTube and Facebook channels. In addition, it was also published in an *app, El País* VR, specifically created to host this type of content.

The topic of the feature can be framed within the category of events, since it focuses on a natural catastrophe: the earthquake suffered in 2011 by this population in Japan and the subsequent accident that occurred in the Fukushima nuclear power plant as a result of the following tsunami.

ISSN: 1696-019X / e-ISSN: 2386-3978

ISSN: 1696-019X / e-ISSN: 2386-3978

The main purpose is to report an event: the levels of radioactive pollution after the accident of the nuclear power plant. To do this, several members of the NGO make measurements at the scene of the tragedy to show that pollution levels are far from the official figures provided by the government. The feature also offers statements from Naoto Kan, at that time Japanese Prime Minister, and measures the radiation in the affected areas. The secondary purpose of the feature is to show an event in its context, specifically, the consequences this accident had on the lives of the inhabitants. To illustrate them, the feature includes the testimonies of some of the survivors and place the viewer in different scenarios being damaged by the event. Therefore, he or she can feel them from a very direct and first person perspective.

The narration starts with a brief introduction, and is then followed by the testimonies of five survivors (a florist, a farmer, a retired man, a retired teacher and a bricklayer), explaining how they lived the tragedy and what impact it has had on their lives. The characters speak directly to the camera from their houses. The feature is completed by the testimony of a Greenpeace responsible that measures radioactivity levels, the statement of the Japanese Prime Minister and two infographic sequences to explain the failure of the reactors at the nuclear plant.

To represent the spherical scenario, both photographs and 360º videos are combined to show several external views of the city and others from the interior of premises and houses. The 360º recording technique allows the viewer to freely travel the different scenes. The use of long shots gives the viewer enough time to visit them before moving on to the next sequence, linked through by a fadeout. The feature adds two sequences made through computer graphics, subtitles to translate the testimony of the different characters, and credits to present them. The recording team is deleted in the most part of the feature, leaving a vacuum instead. However, from minute 8, the recording team remains in the scene.

The camera is placed at the height of the viewer's eyes, in front of each of the witnesses. It acquires a role of an active observer; that is, although the viewer may take some decisions that vary his or her experience within the narration –for example, changing the point of view– viewers are not a character within the story interacting within it.

As for the sound, this feature uses a voice-over representing a neutral omniscient narrator who knows the facts and maintains distance within the story.

The feature also uses a soundtrack evoking sadness and melancholy. This could generate more greater empathy towards the characters and provoke an opinion in accordance to the purpose of the feature: to avoid the use of nuclear power plants.

4.2.2. Result of the in-depth interviews

To analyze "Fukushima, polluted lives" from a qualitative perspective, we interviewed Daniel Verdú, editor of *El País and* director and scriptwriter of this feature. The interview was conducted by phone on June 1st, 2016.

Verdú confirms the participation of Greenpeace in the conduction of this feature. Actually, the NGO took the initiative and financially supported the trip so that the levels of radioactivity were properly measured, to confirm whether official figures were real or not. The story was produced by News Horizon VR company. Although the invitation was intended to make a traditional feature, *El País chose* an immersive approach to tell it. From there, Verdú explains that "Greenpeace paid the trip and the accommodation. The product, which was the most expensive, was entirely assumed by El País."

Regarding the narrative, Verdú indicates that they did not follow a previous script. Instead the feature was composed from material obtained after recording. Quoting Verdú:

> "You cannot go with a preconceived idea because you go there, you pose some interviews, some scenarios, as in a normal feature. The script is then built with all the material. It is the difference between a fiction and a documentary piece. First, you collect the information and then you build the script" (Verdú, personal interview, 2016).

Verdú confirms the complexity of the format and highlights the added cost and difficulties they had to face during the process. It was here where they encountered the largest differences with respect to a conventional audiovisual feature. In the recording phase, Verdú admits the difficulty both when trying to capture the scenes and when collecting the testimonies since, unlike in the recording of a conventional feature, witnesses had to remain alone in front of the camera.

> "To record in 360º you have to disappear from the scene and get the character open up to you. First, you have to do the interview [...]. You have to make them interpret the answers and, in addition, you have to disappear from the scene, which leaves them alone, in front of the camera which is always complicated" (Verdú, personal interview, 2016).

However, they were forced to finish the feature with the same availability of time and resources required to produce a conventional feature:

> "We were there for a week. The same time that had taken us to produce a traditional feature [...]. The team we took for the recording was made up of six people: four technicians from the production company, a photographer from El País who did not intervene and I. It can be done with less people, but it was the first time for us and we wanted to play it safe" (Verdú, personal interview, 2016).

For Verdú, the process of post-production and editing was also hard and made the conduction of the feature even more expensive: "a feature like Fukushima, including the *app*, which is not only for Fukushima but for upcoming immersive features, ranges between 30 and 40,000 euros". The post-production phase also turns out to be difficult:

> "They have spent three months editing. Every single thing is so hard .... For instance, regarding the subtitles they had to create an engine, that allowed floating subtitles when turning the head. If you turn to look at a tree you can still read what the Japanese man is telling" (Verdú, personal interview, 2016).

Finally, Verdú also highlights the audio as a very different issue since it was recorded apart from the video and rebuilt afterwards, looking for spatiality within the 360º sphere:

> "In the editing process, you have the possibility to place the audio, voices and music in the 360º of the scene so that, when you put on your headphones, the audio comes from where it came from: you have the feeling that the person behind you is talking from behind you and not from the front. The audio editing is the most different part in relation to the editing of a conventional video. More than in the recording process itself the main difference lies in the audio editing" (Verdú, personal interview, 2016).

4.3. Comparative analysis of the examined features

Both features are published almost the same date. While both chose the media website and their YouTube channels for their distribution, *El País* offers a wider broadcast because it also publishes the feature on Facebook and on the app of the medium designed to host and distribute this type of content. In addition, it integrates the feature a broader one published in the Sunday edition.

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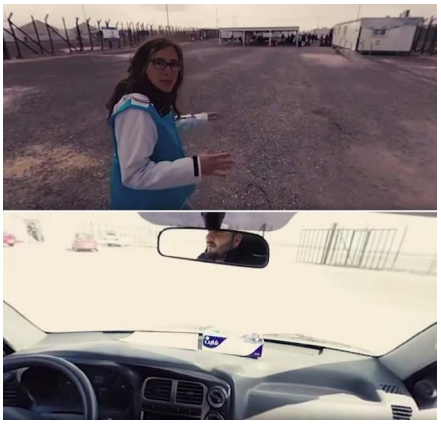
ISSN: 1696-019X / e-ISSN: 2386-3978

There is a key difference in the narrative approach of both pieces since the first one designs a previous script where many of the elements that contribute to generate sense of presence are controlled before recording. This fact can be seen in the deliberate choice of different resources used to guide the viewer's attention and to interact within it. There are, for instance, several characters that appeal directly to the viewer. Although it is a simulation, there is an explicit intention in their interaction. Besides, despite the fact that the feature is recorded in Jordan, it is published in Spanish which does not make it necessary to incorporate subtitles, as occurs in the Fukushima feature.

"In the skin of a refugee" also seeks the interaction of the viewer in the story by adding sequences in movement, so that they generate the sensation of walking or riding in a vehicle (Picture 3). The results coincide with the intention explained by the director to create an environment considering what the viewer will see when he accesses it.

Picture 3: Frames of "In the skin of a refugee"



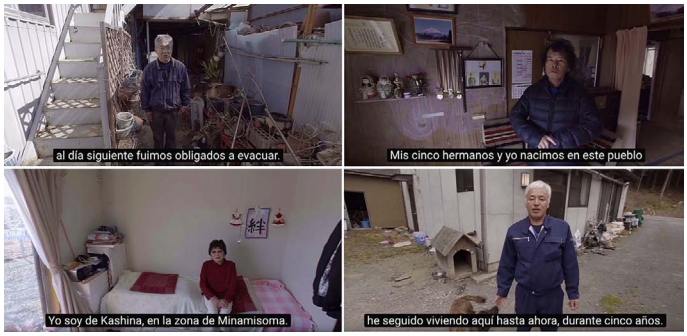
Source: YouTube

Likewise, as Morán points out, given his intention of telling the story from a first person perspective, they try to maintain this point of view through subjective shots. To do so, the camera is located in a helmet on the head of the person whose body will be what the viewer sees when he looks down.

In the case of "Fukushima, polluted lives," the writing process is opposite: the scenes are first recorded and then organized in the newsroom with the aid of a script that is similar to the one used to elaborate the written version of the feature. The result is a literary feature guided by the voice-over of an omniscient narrator who uses indirect style and where the story does not follow a linear order, but this is artificially altered. These two traits can reduce the viewer's sense of presence. In the first case, because third-person narrative and indirect style are less immersive techniques (Ryan, 2004: 167). In the second one, because altering the order of the story in a format that is brand new can confuse the viewers and reduce the feeling for them to be actually present.

As in the *El Confidencial* feature, the story is focused on a first person perspective so that the height of the camera matches that of the eyes of the interviewees. This causes in the viewer the sensation of being in front of them while observing the whole scene in 360º. However, unlike the previous case, their role is limited to observe and they are not present in the story: the characters do not demand their participation, but they just talk to the camera, also showing some rigidity. This representation, whose difficulty –according to Verdú– is conditioned by the fact that the characters have to "face" the camera by themselves, generates a certain distance from the viewer. This distance becomes even greater when adding artifices to the scene, like labels –to introduce each of them– and subtitles –to translate their words– (Picture 4)

Picture 4: Frames of "Fukushima, polluted lives"



Source: YouTube

In this feature, an additional element breaks the sense of presence: the introduction of two infographic sequences to explain the nuclear disaster. This new rupture is explained by three reasons:

1. because, as explained, they introduce a temporary leap that can confuse the viewer
2. because it changes from a first person to a zero perspective, with the greatest distance from the viewer; and
3. because it changes abruptly from a realistic scenario captured from real images to another computer-generated one, which shows the intervention of a technical artifice.

In "Fukushima, polluted lives," the sequences and shots are static, meaning that the viewer observe the scenes without any movement. In addition, the recording team is removed during the post-production process. With no physical representation of the viewer, when they looks down, instead of seeing the body, they find an empty space between what they see and the ground, as if they were floating in the air, which can generate a sense of unreality. The final sequence poses an exception to the use of these techniques, although it does not respond to diegetic intention. The camera is located on the deck of a ship. However, since it is placed at a height greater than that of the viewer's gaze, it generates a distance from the viewer in relation to the action. Besides, in this sequence, the recording team, previously deleted, appears.

Apart from these differences, the two features share the use of the first person camera (with the aforementioned exception) and also the spatial use of the sound. Both incorporate a melancholic soundtrack that evokes sadness. However, in the first

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case, a greater number of effects that guide the viewer are incorporated. This is the case, for example, of the inclusion of a Muslim prayer at the beginning which places the story in an Arab context, the sound of an explosion and the sound of sirens.

The results of our comparative analysis can be systematized in the following chart (Table 1):

Table 1: Comparative analysis of the examined features

	"In the skin of a refugee"	**"Fukushima, polluted lives"**
Journalistic features		
Newsoutlet	*El Confidencial*	*El País*
Publication date	18/4/2016	30/4/2016
Length	3:26 minutes	9:10 minutes
Distribution platform(s)	Web, Youtube	Web, Youtube, Facebook, *app*
App for its distribution	No	Yes. Owned by the newspaper
Financial support	UNHCR	*El País* and Greenpeace NGO
Topic	Society: refugees	Events: nuclear catastrophe
Main purpose	To show an event in its context	To denounce a situation
Secondary purpose	To denounce a situation	To show an event in its context
Narrative features		
Height of the camera	At viewer's eye level	At viewer's eye level
Presence of the reporter and of the recording team	They disappear from the scenes	They disappear from the scenes except at the end
Narrative perspective	First person (subjective camera)	First person (subjective camera)
Use of overprints	No	Infographs, labels, credits and subtitles
Sound	Sound track, Foley effects, ambient sound, witnesses	Sound track, voice over, witnesses
Viewer's participation	Passive participant	Active observer
Viewer's social interaction	Yes. The characters recognize him and invite him to do several things	No

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Viewer's ambiental interaction	Moves in a vehicle, walks	Remains still
Use of mechanisms to guide the viewers' attention	Characters voices and use of sound	Narrator's voice and character's voices
Viewer's representation	Partial representation	Not represented
Sex	Male	Not represented
Age	Young (16-24)	Not represented

Source: own

5. Conclusions

Both features use an immersive approach to address two very relevant social issues of notable human interest. Both try to generate in the viewers a similar sense of the one they would have if they were in the represented place. By doing so, these features try to achieve greater awareness since this almost real approach to the story allows learning from the context and from their characters from a closer perspective.

Although it is a very new format, the results reveal the proper use of some narrative techniques to achieve this immersion. This is the case of the subjective camera and its location at viewer's eye level, and the use of a melancholic soundtrack which evokes sadness.

However, we also find important differences between the two features. "In the skin of a refugee" uses some narrative resources that contribute to generate sense of presence while the absence of these or the use of different ones in "Fukushima, polluted lives" weakens this sense which even disappears at some points.

Given the novel character of this kind of feature, these results should not be considered as a malpractice of the media that produce them, but rather as part of the experimental phase they are facing. In any case, writing a previous script where it is clear what is to be told and how it is going to be told without losing the point of view of the viewer seem to be a good practice to minimize some of the most common mistakes.

In this sense, the analysis allows us to formulate some first good practices (Benítez & Herrera, 2017b) to take better advantage of the immersive possibilities offered by this kind of feature. Briefly, some of them are:

1) To treat the camera as a person, since there is a direct relationship between it and the viewer. This can be achieved from different techniques as focusing on a first person perspective or including characters that address the viewer as if he were someone real in the action. This latter can be seen in the *El Confidencial* feature, but not in the one produced by *El País*.
2) To use narrative resources that help guide the viewer's attention. Since they can freely control their point of view, there are simple resources that can be used to guide his attention at important times of the story while maintaining his sense

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of presence. This sense can be broken by using overprints such as subtitles, graphics, captions or credits. "In the skin of a refugee," uses moving objects and characters that join the camera, characters that speak to it as if it were the real viewer, ambient sound and a spatial use of the sound that requires the attention of the viewer towards a specific point of the scene.

3) To make use of those resources that reinforce in the viewer the sense of real interaction within the story. The viewer's representation as a participant rather than a mere observer is achieved through different resources. Some of them are the movement of the camera to recreate its progress within the scene, the existence of characters that explicitly recall his attention and the representation of an avatar through a plausible figure that the viewer can see when they look down, as they would do in a real situation

4) Another good practice consists of taking advantage of the use of certain resources that provoke emotions. Although the aesthetics of this kind of features requires static and long-term shots, the breaking of this rule through unexpected camera movements, sudden turns or jumps can generate in the viewer emotions such as fear or surprise. Occasionally, these emotions can help the viewer to better understand the represented reality and their main characters.

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