DOCUMENTARY POETICS IN 360 DEGREES:
perspectives on non-fiction spherical narrative models

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ABSTRACT – Based on a multiple case study, this article analyzes the following four different documentary formats that use spherical photography and/or videos: *Momento MX, Amazônia em 360 graus, A promessa de Iracema,* and *Reconstruction 360*. Our analysis showed the multifunctionality of 360-degree images and the hybrid nature of interactive and immersive non-fiction narratives. Even with the incorporation of these new resources, the fundamental quality of the documentary is upheld. We believe that our findings can help contribute to the production and investigation of documentary works that use 360-degree technology.
Key words: Communication. Documentary. 360-degree images. Immersive journalism. Transmedia storytelling.

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olhares sobre modelos de narrativas esféricas de não-ficção

RESUMO – Apoiando-se na realização de um estudo de casos múltiplos, este artigo analisa quatro produções documentais de formatos diferentes que utilizam fotos e/ou vídeos esféricos: *Momento MX, Amazônia em 360 graus, A promessa de Iracema* e *Reconstruction 360*. Dentre as conclusões, pôde-se evidenciar a multifuncionalidade das imagens em 360 graus, a natureza híbrida de narrativas interativas e imersivas de não-ficção e que, mesmo com os novos recursos, a essência do documentário permanece intacta. A partir dos resultados apresentados, espera-se contribuir para o campo da produção e investigação de obras documentais firmadas na tecnologia 360 graus.
Palavras-chave: Comunicação. Documentário. Imagens em 360 graus. Jornalismo imersivo. Narrativas transmídia.

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RESUMEN – Con base en un estudio de caso múltiple, este artículo analiza cuatro producciones documentales de diferentes formatos que utilizan fotos y/o videos esféricos: *Momento MX, Amazônia em 360 graus, A promessa de Iracema* y *Reconstruction 360*. Entre las conclusiones, fue posible evidenciar la multifuncionalidad de las imágenes en 360 grados, el carácter híbrido de las narrativas interactivas e inmersivas de no-ficción y que, aún con los nuevos recursos, la esencia del documental permanece intacta. A partir de los resultados presentados, se espera contribuir al campo de la producción e investigación de obras documentales basadas en tecnología 360 grados.
Palabras clave: Comunicación. Documental. Imágenes de 360 grados. Periodismo inmersivo. Narrativas transmedia.

1 Introduction

The increased growth of digital technologies has expanded the storytelling possibilities in contemporary times. Creative industry professionals face the challenge of renewing traditional narrative formats (which are based on linear structures) in order to adapt to an era where communication is conducted on complex computerized devices to meet the interactional demands of highly active receivers, who also produce messages and meanings.

One of the features in this changing scenario is the reformulation of the documentary, a genre that has seen its poetry[1] go through an inevitable process of hybridization brought on by web-based resources and the growth and development of image and audio capturing devices. This revamp of the documentary form

is in line with Fisher and Gifreu-Castells (2022, p. 2), who state that non-fiction (a macro genre opposite to that of fiction, composed of countless expressive forms such as journalism, educational materials, and documentary products) stimulates and encourages filmmakers to "experiment, construct, and deconstruct media discourses, formats and languages" and to ultimately "achieve a long-term creative and social impact", one that is strengthened by the emergence of interactive, transmedia and extended reality (XR) audiovisual works. As a result, journalistic companies and audiovisual production agencies have all invested in creating new documentary formats, ones that make the narrative experience more engaging and immersive for the public.

One of the aesthetics explored in these new documentary forms that encourage the rethinking of the boundaries and roles of so-called real cinema, identified as post-documentaries by Català Domènech (2021), are 360-degree images. This is the most recent type of technology to be appropriated by this genre, which uses omnidirectional cameras and microphones to capture the sounds and images of an event from all directions. The main difference between this format and the one used for classic documentaries is the feeling of immersion that it induces, leading scholars to refer to it as the immersive documentary format (Rodríguez-Fidalgo & Paíno-Ambrosio, 2020).

Using this type of image content in newsrooms opens up a world of new opportunities by increasing the informative and emotional aspects of visual journalism due to the fact that a spherical production is able to display a greater amount of data than a traditional production, thus giving the viewer the impression of being in the story (Aitamurto, 2019). Realizing the positive consequences and usefulness of this multimedia resource, large media outlets such as The New York Times, Euronews, and The Guardian (including online media such as Vice News) have begun creating 360-degree stories, many of which focus on social issues and offer the user a different way in which to consume information (Pérez-Seijo & Vicente, 2022).

The existence of these multifaceted productions has made it difficult to define documentaries, something which has been historically recognized in literature (Falandes & Angeluci, 2020; Machado, 2011; Odin, 2012; Penafria, 2014; Ramos, 2008). Many creators of these types of films use a number of techniques and strategies (interviews, actor performances, animation, archival footage, written statements, ambient sounds, and more) to portray the world through their eyes. This challenge of going beyond the

boundaries is even greater in documentary narratives on digital platforms as they tend to use multimedia content such as videos, photos, mapping systems, timelines, infographics, and hyperlinks.

Furthermore, some theories highlight the tense relationship between documentary and journalism (Bezerra, 2014; Vargas, 2018); two fields that can either work together or separately, depending on the individual's viewpoint. There are arguments claiming that the documentary "is and is not journalism, is and is not art, is and is not activism" (Craft, 2018, p. 416). Some claim that reporting and documentary narratives "blend together and/but/or are separate" (Penafria, 2018, p. 2). These are two fields that are constantly being reshaped, surrounded by nonspecific limits and, as such, the history of this connection "belongs to the future" (Bezerra, 2018, p. 33). The 360-degree format can certainly serve as a link in this process.

From this perspective, it is important to discuss the features of contemporary documentary works. As outlined by Mundhenke (2020, p. 41), current documentaries apply enthusiastic new models of user engagement for immersive narratives, and the most important thing is to understand the relationships between the different existing forms of representation, paying attention to the fact that these innovations are not here to replace or put an end to previous formats (interactive documentaries, for instance); they are here to coexist with them, as an "extension of the field". Similarly, Bezerra (2014, p. 23) suggests that instead of trying to assign fixed labels to documentary and journalistic pieces, it is preferable to "examine the models, prototypes, and innovations".

Taking this framework into consideration, this article analyzes four documentary works that use 360-degree photos and/or videos in their narratives. Our analysis involves conducting multiple case studies (Yin, 2018), a methodology used by Renó (2013) when reflecting on transmedia documentary models. This method, according to Gil (2022), has the advantage of providing evidence based on different circumstances, resulting in a more solid investigation. We believe the projects we selected for our analysis *Momento MX* (2017), *Amazônia em 360 graus* (2019), *A promessa de Iracema* (2020), and *Reconstruction 360* (2019-2023) exemplify the inherent diversity of reality filmed in 360-degree technology. Each project makes use of different strategies such as multimediality, interactivity, fiction, virtual tours, and images of people to highlight certain social and historical contexts. The projects were analyzed

using an analysis sheet, developed by the researchers, which lists the resources used in the narratives.

Before presenting our analysis of the four cases, we give an overview of theoretical approaches to documentaries and their contemporary forms. We specifically focused on spherical productions to shed more light on the fundamental features of this constantly redeveloping genre.

We anticipate that the results presented in this study can demonstrate and suggest ways to produce 360-degree documentaries, and hopefully encourage documentarians, media outlets, and content agencies to come up with new immersive ideas. We also highlight the multifunctionality of 360-degree images and how they can be used for different purposes in the projects (main and secondary narrative roles, for example), decisions which are ultimately up to the creative ideas and objectives of those who produce them.

2 The many faces of documentaries: from classic to contemporary hybridism

Documentary productions are forms of audiovisual art, which means establishing their borders can be a challenge. According to Ramos (2008), this genre is basically characterized by narratives composed of images recorded by cameras that postulate about the world. These images are only fully assimilated if the viewer perceives them in this way. The author maintains that artists do not like the feeling of being labeled, and society tends to agree with them, but he also understands the need to have concepts and terms that can represent the documentary universe in order to properly analyze the "cultural production of our time" (Ramos, 2008, p. 23).

Following this line of reasoning, a set of studies were conducted that reflected on the definition of documentary, taking into account different aspects. Some of the studies we analyzed highlight the difficulty of classifying these contents. For example, Machado (2011) states that he is not aware of any one description that could adequately classify all audiovisual works in this modality. Penafria (2014, p. 23) lends weight to this point of view by stating that "the documentary is not defined, it is experienced; and the internet has become the stage for this experimentation". Falandes and Angeluci (2020) highlight the fact that the producer puts his perceptions in the films, making them increasingly authorial which, consequently, ends

up complicating the attempt to categorize the works, even more so in the contemporary technological context.

Studies continually debate whether documentary productions must represent reality or not. Commenting on the films commonly referred to as images of the people, Renó (2013, p. 204) considers the genre to be a pioneer in audiovisual, describing its ability to build/ mirror the real and to offer the public "information and knowledge, which can mean cultural and social emancipation". In line with this view, Falandes and Angeluci (2020) point out that documentary narratives are traditionally classified as linear audiovisuals that deal with social realities. On a more critical level, Bruzzi (2000, p. 4) states that a documentary product will never be equivalent to reality, it is a representation of it, leaving viewers to discern the format as "a negotiation between reality and the image, interpretation, and bias". Ramos (2008) believes that to uncomplicate the definition of documentary we need to ignore the use of clichés such as objectivity, truth, and reality because once productions reach the public they have often already been labeled by their creator.

Another frequent approach found in studies on documentaries is discussing the detachment from and approximations of this genre with fiction. Weidle (2018, p. 414) considers that one of the most consistent attributes to define documentary works is the use of applied fiction "as a fixed point of differentiation" and regards the articulation of these two poles as necessary to transform the documentary into a "category of perception". Explaining the terrain of conceptual reflection on documentary narratives, Renó and Flores (2018, p. 72) note that theories generally derive from the field's own traditionalism, based on the "idea that the documentary is constructed from real images and authorial and linear cognitive structures, with few interpretative possibilities". However, in addition to this more conservative conception, these authors state that since its genesis, this audiovisual format has also explored fictional elements such as scenes performed by actors. In this sense, there are researchers whose interpretations of the documentary deviate from the more classic definitions, such as Metz (1975), who understands that each and every film is fiction, and Odin (2012), who believes that fictional works are, to some extent, documentaries.

Also worthy of mention are the scientific contributions that reflect on the documentary and its intersections with journalism. Bezerra (2014, p. 16) outlined a portrait of these intricate relationships, arguing that filmmakers often appropriate documentary content for artistic purposes, while journalists highlight the social role of their

function. The author sees these discussions as problematic because they claim the areas are "watertight, impermeable, and closed structures"; however, they are in fact "open concepts".

According to Henn (2009), despite their distinctions, documentary and journalistic productions share the same existential principle that justifies them: a high level of factuality. Henn complements that "the documentary adds more weight to journalism, streamlines the agenda and language, and takes its frontiers and directs them toward a more common center, as a rule" (Henn, 2009, p. 2). Craft (2018, p. 428) seems to share this idea when he declares that, although documentary and journalism have different properties with regard to ethics, the profession, voice, and point of view, they cannot solve the long-standing difficulty of whether documental and journalistic domains "belong to the same field or to separate fields". Craft ascertains that both domains express aspects of reality and sees the intersection of these areas as a good opportunity to find "a space to reinforce and clarify important values when telling stories of public relevance" to guarantee that relevant narratives are reported and assimilated by the public (Craft, 2018, p. 429).

It is also important to draw attention to theoretical proposals that focus on the intersections between documentary and cinema. Comolli (2008, p. 43) points out that both fields are subjective and inextricably linked, "cinema began as a documentary and a documentary as cinematographic". In fact, cinema was born out of the documentary form thanks to the daily cinematography experiments conducted by the Lumière brothers at the end of the 19th century. The film that shows a train arriving at the Paris station – the most famous work from these French filmmakers – is recognized for giving viewers the sensation that the train was actually going to pass right over them, a sensation that was created by the depth of field they generated with the framing they used (Gervaiseau, 2012). Aumont (2004, p. 39) calls this visual technique where the image comes out of the frame (the train and the characters crossing over the limits) a "touch of genius". The technique makes it so the space seems to constantly be transforming.

Bringing this context to contemporary documentary narratives, supported by resources from new technologies, is what led Penafria (2014) to believe that these narratives also offer frames, but it is the interactor who navigates through them. As Gaudenzi (2013, p. 13) states, web documentaries and interactive documentaries present a much more fluid structure than single, linear works as the cut, a mechanism that creates meaning from "a

fixed chain of events", is replaced by the hyperlink, which opens up a wide range of possibilities for the public. As a result, interactive documentary forms (in which the author's intent is undisclosed) have new factors that take part in the film experience: "code, interfaces, algorithms, and active users" (Gaudenzi, 2013, p. 13). Likewise, Vázquez-Herrero and Pérez-Seijo (2022) highlight specific features of these productions, such as non-linearity, which encourages users to make decisions and explore a multimedia and hypertextual language that often involves transmedia planning and uses several platforms to expand the narrative universe.

Among the most recent narrative strategies used in these innovative documentary poetics is the 360-degree image, characterized by effectively dissolving the limits of the frame. Rodríguez-Fidalgo and Paíno-Ambrosio (2020) explain that in recent years communication vehicles and audiovisual spaces have used this technology for documentaries to obtain a better representation of reality. When describing the sensation of accessing spherical contents, the aforementioned authors reveal that watching the production with the VR headset gives viewers a first-person view of the content; they are not passive consumers of a classic documentary, but undergoing "an immersive social experience" (Rodríguez-Fidalgo & Paíno-Ambrosio, 2020, p. 250).

For Soler-Adillon and Sora (2018), the use of spherical videos helped to expand journalism and documentary by finding a means of connecting with the public, a perspective that lines up with Weidle (2018, p. 422), who sees documentaries in virtual reality and 360 degrees as another procedure used in the "creative and meta-reflective treatment of today through audiovisual media and its affective potentialities". Relating the use of spherical videos to a capacity for empathy, Özdem (2021) points out that the interest producers have to create interactive documentary narratives in recordings with 360-degree cameras has to do with the widespread potential these narratives have to bring about social change: they provide more realistic experiences which give the public the feeling of being in someone else's shoes, thus encouraging them to think positively about a particular humanitarian cause.

The images used in 360-degree content for non-fiction projects can occur in different ways. Sirkkunen et al. (2021) confirm this idea after surveying audiovisual works in the field of journalism and identifying four provisional genres related to this immersive technology: live feeds, news, documentaries, and fictional

pieces. These same authors believe the latter to be a good tactic for journalistic companies to attract new audiences. These authors remind us that the blending of factual journalism and fiction was already occurring at the end of the 19th century when the first series of novels and poems were published in periodicals.

When tracing the evolution of immersive documentaries, Teixeira (2019) refers to Gone Gitmo, a digital game using computer graphics, initially released in 2007, and the first of its kind to achieve popularity. This installation, a virtual recreation of the Guantánamo Bay detention facility, was created by Peggy Weil and Nonny de la Peña, the latter internationally known for helping to consolidate immersive journalism. Another reference narrative in this field is *Hunger in Los Angeles*, from 2012, also created by De la Peña. It was the first virtual reality film and is based on a real event that occurred in a Los Angeles food bank (Teixeira, 2019). The *Assent* documentary, directed by Oscar Raby and released in 2013, is yet another immersive VR production considered a pioneer in the field. It tells the story of the military regime in Chile through the eyewitness testimony of an army officer (Teixeira, 2019). Technological advances in the years following these experiments led to more immersive non-fiction audiovisual pieces, including ones recorded completely by 360-degree cameras, as in *The Displaced* (The New York Times, 2015), *Fukushima* (El País, 2016), and *Living in the Unknown* (AJ Contrast, 2021).

The use of 360-degree photos is also a resource for building documentaries. For example, the web documentary *Quito, el otro turismo* (Escandón, 2019), which offers non-traditional tourist trips through the capital of Ecuador (videos made from drones, interviews, iconographic resources, among others) includes spherical photographs. Another example is *Caatinga 360* (Ufersa, 2019) which presents 360-degree static images of the Caatinga biome, allowing the public to take a virtual tour of this region.

Likewise, post-photojournalism is a documentary-style format using 360-degree images, as demonstrated by Falandes and Renó (2021) in their study on the narrative structure used in the multimedia report entitled *Bondi-to-Manly: Sydney's spectacular harbor walk*, launched by Guardian Australia in 2019. Created by Renó (2020), the proposal behind this concept is to represent contemporary factual reports using all types of images – videos, photos, maps, and other visual resources – in the same online environment to raise issues of public interest.

Our intent with this brief theoretical journey is to demonstrate the hybrid nature of contemporary documentaries, which are designed to have a continuous flow and follow the creative freedom of the filmmakers and the technological developments they use. With the advent of the internet, the boundaries between media became blurred and journalism started to incorporate the language of docs and webdocs, a beneficial pairing that allowed for different non-fiction formats to be joined together, the innovative structures of which add to the issue portrayed, as well as being fertile ground for user involvement (Vargas, 2018). This complex narrative scenario allowed for spherical images to emerge, which have led to significant changes in how documentaries are produced and received, mainly as a result of their immersive nature. In this paper, we recognize the potential of this innovative resource for the development of "real" films, and in the following pages we shall present and examine four 360-degree documentary productions.

3 Methodology

Taking into account the inherent complexity of contemporary spherical non-fiction narratives, we found it relevant to analyze the selected documentary poetics in the case study. We organized the article into the following six stages, based on the layout indicated by Yin (2018): plan, design, preparation, collection, analysis and sharing.

The methodological path began with the idealization of the plan, that is, setting our research objective, which involved examining documentary productions using 360-degree images. We evaluated works that offered contrasting structures for better comparative purposes. A literature review was then conducted of discussions from various authors, both classic and current, on the different definitions of documentary and how they articulate with journalism, cinematography, and technological innovations.

From the design point of view, we framed this research as a descriptive case study, as it characterizes models of documentary pieces that use spherical content, an approach that aligns with the current interests that academic and marketing centers have on image modality, and the prominence of visual reports on a global level. This study can also be classified as a multiple-case study since it involves interpreting evidence from four products; a strategy that can generate more reliability than just verifying a single case (Yin,

2018). Following this reasoning, Schoch (2020) sees the inclusion of three to four objects in multiple case studies as an important tool for a more in-depth understanding of the issue and believes it to be more effective when applied to intentional sampling.

The development of this paper was based on the researchers' prior preparation for data collection, which is evidenced by the previous publication of a set of scientific texts containing analyses of 360-degree image narratives, including journalistic ones (Falandes & Renó, 2022a; Falandes & Renó, 2022b). In addition, we wish to draw attention to the care that was taken when collecting the information. It is important to conduct an ethical and thorough scientific process, one that follows established protocols and helps guide the investigations. Gil (2022) states that there is no standard model for outlining this instrument. For this paper, we opted to use an analysis sheet (the items of which we shall indicate later), something Pérez-Seijo (2018) and Falandes and Renó (2021) did in their case studies.

The main source for data collection was the four documentary productions with spherical images, which we accessed from their websites. Blog posts and journalistic articles were also observed, which provided important complementary data.

For our analysis, we organized the information from each case and matched it to the protocol for the theoretical propositions discussed in the literature review, an approach that is in line with the first general analysis strategy proposed by Yin (2018). The second analytical technique recognized by Yin (also used in this study) is the detailed description of objects. In this sense, we systematically observed and described aspects of how the narratives were constructed, an innovative approach used to bring content to light that had previously gone unexamined in the literature, and the authorial classification of models. This can offer contributions to the area of research in digital communication and immersive journalism.

Lastly, the sharing phase involves writing the topics that make up the scientific text which, in the context of this study, were arranged according to the classic case study structure proposed by Gil (2022).

4 360-degree narrative documentary models

For a better and more reliable interpretation of the selected works, a protocol (analysis sheet) was prepared which included the

following items: Individuals responsible for the production; Theme; Type of image analyzed (traditional and spherical); Interactive elements; Documentary resources used; and Transmedia planning. The poetics were evaluated according to this same analytical scheme, which is quite flexible as it pays attention to the specificities of each production.

4.1 360-degree photography as a narrative strategy in interactive documentaries

Launched in 2017, the *Momento MX* documentary provides an overview of creative professionals in Mexico. Produced by Aura/Arca and Tânia Esparza, and directed and written by Pablo Martínez Zárate, this interactive documentary uses different forms for navigating content. The home page of this online platform (figure 1) provides users with access to material from two Mexican creative communities: independent publishers and members of the electronic and experimental music scene. Users must click on the three-dimensional image (a pile of books or a synthesizer) that represents these two groups in order to access the content.

Figure 1

Home page of "Momento MX" interactive documentary
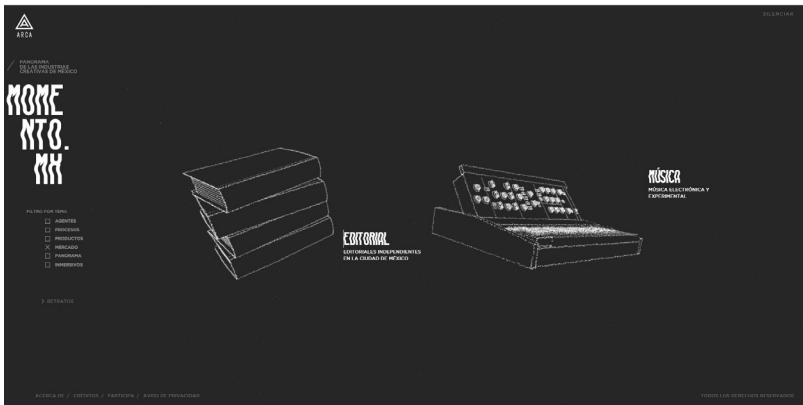
Martínez-Zárate, P. (Director). (2017). *Momento MX – panorama de las industrias creativas de México* [documentary]. Arca. Retrieved from www.momentomx.com

Clicking on one of these images brings you to another page containing six image productions, called "chapters", which include testimonials on various subjects pertaining to the editorial and musical fields. These are divided into the following categories: "agents", "products", "processes", "market", "panorama", and "immersive". It is worth mentioning that the public can also choose which experience they wish to watch by using the "filter by theme" option, located at the bottom left of the home page. Another interactive option, also on the home page, is the "portraits" button, which takes viewers to a list of Mexican creators from the publishing (12) and music (11) industries who participated in the documentary. Hovering the mouse cursor over the image of the creator allows you to watch their video.

Five of the six image contents are short documentaries, between two and three minutes each, containing interviews, videos recorded with conventional cameras, text boxes, soundtracks, as well as images captured by drones. Links to the names of the characters in the scenes appear while the videos are playing. The video player also allows users to scan forward to the videos they wish to see.

The sixth content actually contains six virtual tours conducted by independent publishers, one of which is in a music store. They are all created using 360-degree interactive photography that gives the impression of automatic movement (figure 2). These experiences, included in the "immersive" chapter, encourage the public to look at the locations from all angles. There are also buttons available that, once clicked, redirect the user to other rooms in the same space. There are some traditional documentaries that, at times, include hyperlinks to spherical photos when the characters make mention of areas that were recorded using 360 cameras.

Figure 2

One of the 360-degree photographic experiences in "Momento MX"
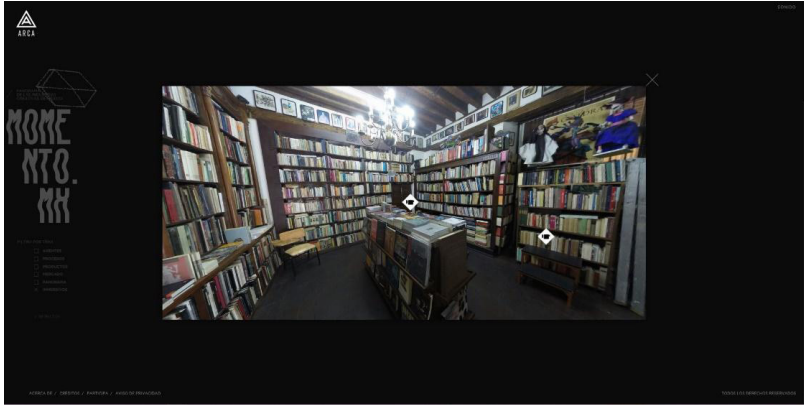
Martínez-Zárate, P. (Director). (2017). *Momento MX – panorama de las industrias creativas de México* [documentary]. Arca. Retrieved from www.momentomx.com

Transmediality is another strategy used in this interactive documentary narrative. According to information on the project's website, this type of work is inspired by the book *Momento 1*, edited by Arca and Revista 192, which also published content from creative producers in Mexico. These two complementary pieces form a narrative universe for the public.

This brief analytical description allows us to conclude that this Mexican content matches up with the definitions of interactive documentary proposed by Gaudenzi (2013) and Vázquez-Herrero and Pérez-Seijo (2022). This production uses various narrative formats – including 360-degree photography – to portray aspects of the creative industry in Mexico, and the user is able to choose which material he or she wishes to view.

The choice to use virtual tours is a narrative style that most 360-degree image producers prefer to use, including those who develop journalistic pieces. In general, this type of piece – whether photo or video – encourages the interactor to learn more about tourist locations, such as beaches and museums, and even inside newsrooms; a reflection of their technical capacity to record and represent environments more faithfully, providing the effect of immersion. During the covid-19 pandemic, the 360-degree tour
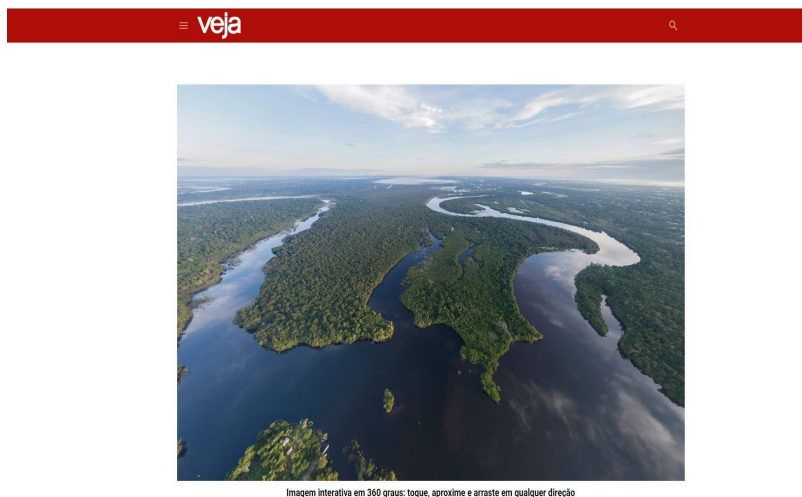
gained more prominence as social distancing measures were still in effect. It allowed the public to access places online and thus help alleviate the feeling of isolation (Falandes & Renó, 2022a).

4.2 Post-photojournalism and spherical images

The documentary *Amazônia em 360 graus* (in English, Amazon in 360 degrees), released by Veja.com in 2019, highlights interesting aspects of the Amazon rainforest from images captured by photographer Paulo Vitale. The post-photographic report operates on a single site which one can navigate by scrolling up and down. The documentary starts with the title and subtitle with an aerial shot of part of the rainforest used as the background. A short introductory text is then introduced with the reporting team and a tour guide describing their experience. Next, a 360-degree interactive photo is shown which automatically moves about. This photo was captured by a drone (figure 3).

Figure 3

360 degree image used in a post-photographic report

Imagem interativa em 360 graus: toque, aproxime e arraste em qualquer direção

Vitale, P. (2019). *Amazônia em 360 graus*. Veja. Retrieved from https://complemento.veja.abril.com.br/brasil/amazonia-em-360-graus/index.html

Following a brief paragraph describing the Amazon, a traditional drone video (1' 3") shows the region from above. There is also a text that talks a little more about the experience of press professionals accompanied by a short audiovisual production (44 seconds long) showing a young man drinking water from a vine. Three large photos then appear that cover the page, all have subtitles to describe them. These images provide tips for how one can survive in the Amazon rainforest, such as covering your hands with ants, which can disguise the smell of humans from any possible predatory animals.

A short text and a traditional video of the Rio Negro, made from a drone (1 minute long), are added to provide an aerial view of the area. Two traditional photos were then taken of the region: one showing a 50-meter tall tree that might be older than the discovery of Brazil itself, and the other showing the ruins of the ancient city of Airão Velho, created in the 19th century. Five contents are then shown demonstrating distinctive characteristics of the Amazonian fauna: a brief text describing experiences of seeing wild animals; a traditional video showing a tour guide using a machete to imitate bird songs (1'13"); and three large photos of monkeys, giant otters, and a toucan. There is also a small text and a traditional video (17 seconds long) showing a black caiman eating the remains of fish that had been thrown into the river by fishermen.

The next section includes three traditional photos of two defenders of the Amazon and a short text describing their activities. The text explains how important the port is for the Amazon region, making mention of the tourist attraction "Flutuante dos Botos", a place where one can get close to the animals mentioned above, and even feed them. There are two large photos included here that show this place. The documentary continues with a text on the Rio Negro informing about luxury cruises and hotels in the region. Four large traditional photographs of these facilities are included here.

The producers of this multimedia report used the My Maps (Google) platform to help map their tour route down the Rio Negro, which included eight photos taken of the surrounding area. A 360-degree video (1'55") of a boat tour through this region was also included in the narrative (figure 4). Unlike the traditional audiovisual documentaries of post-photographic reports, the spherical

production has a lot more editing behind it; it presents more than one scene, has transition effects, and uses visual resources such as a logo and text boxes.

Figure 4

360-degree video in a post-photographic report

Vitale, P. (2019). *Amazônia em 360 graus*. Veja. Retrieved from https://complemento.veja.abril.com.br/brasil/amazonia-em-360-graus/index.html

The final part of this special journalistic documentary includes tours along the igarapés (small streams) where, according to the filmmakers, one becomes aware of the power of the forest, away from the comfort of air-conditioned cabins, one example being the huge crab spiders that make most tourists feel uneasy.

The post-photographic report has a transmedia structure and uses the external YouTube platform to host its videos (both traditional and spherical), in addition to using Google My Maps to exhibit the places the producers visited during their tour through the Amazon territory. Another transmedia strategy used is the inclusion of social networks (Facebook, Twitter, and the now defunct Google+) on the website for sharing the production.

After analyzing the specific features of the *Amazônia em 360 graus* report, we look back to the proposal of Renó (2020) and recognize that the format the producers use exemplifies a new way of documenting facts by aggregating different image

contents, such as the spherical photos and videos, with text added to complement the images. This tendency to merge various image modalities in a single space is in line with Pereira's (2020, p. 418) interpretation, which is that journalism is going through a transitionary period where photojournalism – traditionally related to photographic works – becomes a sub-field of visual journalism, a "more comprehensive, hybrid, convergent model where photographs, videos, and related sources progressively interact with other images".

The use of two types of 360-degree content – interactive photos and virtual video tours – demonstrates the interest press professionals have in building engaging post-photojournalism reports that make use of the latest technological trends to tell non-fiction stories. The use of spherical photography captured by drones is an innovative and high-impact visual tool that provides users with new angles to view a story. Spherical audiovisual productions recorded on a camera mounted on a moving boat or the banks of a waterfall provide for a more dynamic narrative, giving viewers the impression of experiencing, *in loco,* the journey through the Amazon. Furthermore, combining these immersive pieces with other forms of representation – textual reports, mapping systems, and traditional images – is a reflection of the current process of blurring the boundaries between media (Vargas, 2018).

4.3 The 360-degree documentary as the main narrative for transmedia planning

A promessa de Iracema (In English, Iracema's promise) is a 360-degree short documentary (10' 44") released in 2020 about Iracema, a woman from a riverside village who travels to the city of Belém, in the state of Pará (Brazil), to participate in the Círio de Nazaré procession. She makes this journey to fulfill the promise she made to Our Lady of Nazaré and thank her for healing her sick daughter (figure 5). This documentary, which has received awards in audiovisual festivals, is directed and written by Larissa Ribeiro, and co-produced by CasaBarco Filmes and Leão do Norte. This production used editing resources such as texts, logos and transition effects. In terms of documentary strategies, the work included interviews

with the protagonist of the narrative, her voice-over used in certain scenes, and supporting images of her family members, in addition to ambient sounds. In order to portray Iracema's story, the 360-degree camera was positioned in different ways, for example, on a tripod, attached to the top of a tree, and on a boat.

Figure 5

Scene from the 360 degree documentary "A promessa de Iracema"

O Liberal. (2021, September 22). *A Promessa de Iracema Círio O Liberal* [video]. Retrieved from https://youtu.be/L-HyljsKPQE

Some might say that this spherical documentary, which was recorded in 2019, achieved new meaning with the onset of covid-19, becoming the main piece of a transmedia strategy. In partnership with Pina Filmes and the Comunicação Liberal Group, the filmmakers released the documentary in 2021 (figure 6) as part of the #CirioInterativo project, the second year in a row that the religious procession did not take place. Virtual reality glasses (cardboards) were sold to the public so they could experience the party without actually being there (Santana, 2021).

Figure 6

Images taken at the documentary's release

Note. Images taken from *O Liberal*. (2021, October 7). The Liberal Group releases virtual reality experience of the Círio de Nazaré [video]. Retrieved from https://youtu.be/6dRNnLLFMQA

According to information in the director and writer portfolios, as well as the production of the distribution campaign (Ribeiro, n.d.), kits were sent out to notable personalities before the documentary's official premiere, who were then encouraged to voluntarily share their experiences on social networks and invite their followers to visit the project, located in a touristic spot in Belém. In addition to this initiative, which was well-received, another way the documentary was promoted was through the creation of the mini-series *Histórias do Círio*, realized in cooperation with Distribuidora Taturana Mobilização Social. The mini-series consisted of two-minute-long episodes to be released on social media. These episodes contained five characters

and their perceptions about the religious procession, which included their reactions to the immersive narrative.

One of the notable features of *A promessa de Iracema* was its release, which took place in a physical space where the public could look at the photographic panels and watch the 360-degree documentary using virtual reality glasses (cardboard). This type of strategy is in line with Renó's (2013) understanding of the transmedia documentary, a format that he believes does not simply entail narrative extensions hosted on digital platforms; the most important thing is the experience and how it is built for the user. Furthermore, it should be noted that the analyzed narrative consolidates its original nature by using the spherical video as the main content in a transmedia proposal, a different approach from what is generally observed in news media, which places this type of image in the background (Falandes & Renó, 2022b).

It is also worth mentioning that the immersive documentary film genre integrates with non-fiction interactive pieces, used in recent years by specialist producers and media outlets looking for new ways to represent social realities through immersive stories (Rodríguez-Fidalgo & Paíno-Ambrosio, 2020). Faced with the pandemic and the impossibility of publishing the 2021 edition of Círio de Nazaré, the *O Liberal* newspaper adopted 360-degree technology and applied it to documentary narratives to give the public the virtual experience of participating in the religious procession, in addition to telling a story of faith and devotion which generates feelings of emotion and closeness. The success of this strategy is a testament to the advantages that come from merging documentary with journalism, recognized even by international media companies such as Al Jazeera, which has an innovative and immersive media narrative studio – Al Jazeera Contrast – that produces 360˚ documentaries.

4.4 360-degree documentaries with a dose of fiction

Developed by South Carolina Educational Television (SCETV), a state network of Public Broadcasting Service (PBS) member television stations, and funded by the National Endowment for the Humanities (NEH), the *Reconstruction 360* project (with content released in 2019) is configured as an interactive documentary narrative representation of the Reconstruction events in the United States. The project is organized

into six main sections (yet only three are made available), each one highlighting a certain characteristic of that historical moment, with emphasis placed on the behavior of the freedmen (figure 7).

Figure 7

Sections of the interactive documentary available on opening screen
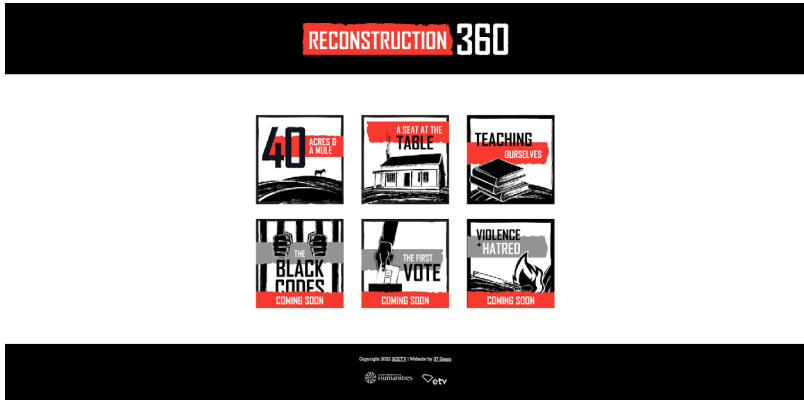
South Carolina ETV/National Endowment for the Humanities. (2019-2023). *Reconstruction 360*. Retrieved from www.reconstruction360.org/

Clicking on one of the three sections available for browsing will bring you to another page containing audiovisual productions, entitled "Introduction". These introductions are short documentaries (approximately three minutes long) containing images captured by both conventional cameras and drones where on-camera researchers place the historical, geographic and social contexts of the stories. Some of the resources used to create this content include excerpts from interviews, photographs, documents, newspapers, maps, book illustrations, and scenes interpreted by actors. These visual elements are accompanied by a soundtrack and voice-overs from experts or a commentator. Also included are audiovisual films (up to just over eight minutes in length) entitled "Descendants" where interviews are conducted with characters and researchers who document personal contemporary stories connected to the Reconstruction event.

360-degree interactive videos also make up part of the project (figure 8). Actors are recorded as they play the specific roles of individuals associated with events that occurred during

the Reconstruction era, such as freedpeople. Clicking on the access points (hotspots) located on the characters and objects in these videos will play a traditional audiovisual narrative (most lasting up to two minutes) which describes their characteristics and importance for the reconstruction, in addition to a set of multiple choice questions where users can test their knowledge of the particular period. Users also have the option of accessing content located in the upper and lower part of the 360-degree videos, which include video hotspots and other information.

Figure 8

360 video published in the section "Teaching ourselves"

South Carolina ETV/National Endowment for the Humanities. (2019-2023). *Reconstruction 360 –Teaching Ourselves*. Retrieved from www.reconstruction360.org/teaching-ourselves/

Of note are the three films published by the filmmakers located under the "Resources" tab, which is included in all the sections. The "Lesson plans" link includes pedagogical activities that teachers can use with their students for studying the Reconstruction era, in addition to other links containing teaching materials. The "Primary documents" link includes references used by the actors when producing the scenes. The "Documentary media" link contains

lists describing the sources for the images used in the documentaries.

After analyzing the transmediality of *Reconstruction 360*, we found it to complement the documentary series *Reconstruction: America After the Civil War*, released in 2019 (PBS, s.d.). Of note was the fact that additional content related to the documentary was released (behind-the-scenes footage with the actors) on South Carolina ETV's social networks, in addition to a production workshop held by team members during the *2022 Interactive Film & Media Conference* (IFM, 2022).

In summary, *Reconstruction 360* articulates reality with fiction, two poles that are often classified as opposites in more traditional documentary concepts (Renó & Flores, 2018). Events that were experienced by real people and recorded in historical archives are here interpreted by actors, an association that demonstrates why it is so difficult to label this complex genre – previously discussed in studies by Machado (2011) and Penafria (2014). What should be more important is trying to highlight its characteristics and try new languages.

The 360-degree feature used in the documentary focuses on interactive videos which allow the user to look around in all directions, with the option to click on buttons to view traditional images, an option that adds an element of engagement to the project, making for a more dynamic information process. Similarly, when recording the actors in 360 degrees, the filmmakers used an old journalism strategy of adding elements of fiction to tell factual stories (Sirkkunen et al., 2021). This was done in order to facilitate understanding of themes related to the Reconstruction era in the United States as the documentary was also created for educational purposes.

5 Conclusions

The analyses carried out in this investigation, guided by theoretical propositions and systematic descriptions, presented four models of documentary narratives using spherical images. The examples we listed and examined do not exhaust the possibilities of existing formats – once the limitations of the study samples are recognized – but contribute to a better reading of the immersive products released in the field of non-fiction. In light of the reflections expressed in this paper, it became apparent to us that incorporating

these types of poetics into journalism can be advantageous (Vargas, 2018) for media companies, whose cultural capital would be strengthened and maintained by including 360-degree interactive documentaries at a time when the press, due to the unfavorable economic scenario, is lacking in sponsorships (Craft, 2018). It is also advantageous for the public, who can enjoy a new way of consuming information (Pérez-Seijo & Vicente, 2022).

In terms of the specific features of each documentary, we noticed they all make use of a responsive structure so that their content can be accessed by different electronic devices. Three of the four projects we examined (*Momento MX*, *Amazônia em 360 degrees* and *Reconstruction 360*) are based on multimediality, hypertextuality and non-linearity, mechanisms that are increasingly being used in contemporary audiovisual narratives. In these cases, 360-degree content is one of several resources producers use to build their documentary poetics. *A promessa de Iracema*, on the other hand, is developed entirely with spherical videos and is part of the so-called "immersive documentaries".

Among the materials used in the documentary narratives, the drone images used in the three interactive productions are particularly interesting. The usefulness of this recent technology has been attested to by communication professionals who work with the production of photos and videos (Pereira, 2020); it is an important tool for offering the public new perspectives on the world. Another format we found in two of the projects is the 360-degree photograph hosted on a platform that allows automatic movement. This strategy gives users the option to view the content by either watching the programmed rotation or navigating it themselves using an optical mouse for their notebooks/PCs or using their smartphone/tablet screen. This demonstrates the filmmakers' interest in providing narrative experiences for two types of public: those who interact and those who do not.

Transmediality is also a trademark in all the documentaries, as evidenced in the circulation of complementary narratives in virtual spaces like YouTube and My Maps in *Amazônia em 360 graus*, the non-digital efforts realized through the launching of a book before the release of *Momento MX*, the physical efforts to distribute the *A promessa de Iracema* documentary, and the workshop held by the *Reconstruction 360* team. The adoption of multiple media in the documentary field is in line with trends in the contemporary

audiovisual economy, which seek to reach different viewer profiles.

Lastly, analyzing these documentaries that use 360-degree images revealed the hybrid nature of new non-fiction narratives which have been mixing traditional resources such as interviews and acting with innovative technologies, a process that has led to more complex documentaries. There are countless formats and levels of interactivity of these types of productions, making it difficult to accurately identify their limits (Özdem, 2021) or whether they classify as journalistic or artistic pieces, a definition that can vary according to the opinion of who produces and who consumes it (Craft, 2018).

At the same time, we noticed that, despite the new resources, the fundamental quality of the documentary language remains the same: it makes assertions about the world according to the director's objectives and creativity. In this sense, we can think of documentary works as "remediation", a theory put forth by Soler-Adillon and Sora (2018) based on the reflections of Bolter and Grusin (2000). If we think of remediating digital media as the properties of a given medium being represented in another, newer one (Bolter & Grusin, 2000), we can then say that spherical documentary narratives have been remediating interactive documentaries and documentaries as a whole. However, despite showing similarities with its previous versions, 360-degree documentary content does have one significant difference: it offers "realities" recorded from various angles and has the potential to produce immersive experiences for the public.

NOTE

[1] The authors of this paper use the expression "documentary poetics" to illustrate the thought that, like poetry, a documentary is an art form, as pointed out by Renó (2013). Instead of verses, the producers of these narratives use audiovisual language and other complex resources (in the case of interactive and immersive documentaries) to build their compositions. Similarly, the use of the sentence finds support in the understanding of Bezerra (2014), when considering the activities carried out by journalism as creative, a perception obtained when analyzing the variety of products, including documents, explored in this area.

REFERENCES

Aitamurto, T. (2019). Normative paradoxes in 360˚ journalism: Contested accuracy and objectivity. *New media & society*, *21*(1), 3-19. DOI: 110.1177/1461444818785153

AJ Contrast. (2021, june 28). *Living in the Unknown* [video]. Retrieved from https://youtu.be/jJ-xgOgHxCU

Aumont, J. (2004). *O olho interminável (cinema e pintura).* Cosac & Naify.

Bezerra, J. (2014). *Documentário e jornalismo: propostas para uma cartografia plural.* Garamond.

Bezerra, J. (2018). O elefante na sala: duas ou três coisas sobre documentário e jornalismo. In A. S. Kurtz & H. Vargas (Eds.), *Jornalismo e documentário: diálogos possíveis* (pp. 17-34). Appris.

Bolter, J. D., & Grusin, R. (2000). *Remediation: understanding new media*. MIT Press.

Bruzzi, S. (2000). *New documentary: a critical introduction*. Routledge.

Català Domènech, J. M. (2021). *Posdocumental: la condición imaginaria del cine documental*. Shangrila.

Comolli, J. L. (2008). *Ver e poder: a inocência perdida: cinema, televisão, ficção, documentário*. Editora UFMG.

Craft, S. (2018). 21 Documentary Journalism. In T. P. Vos (Ed.), *Journalism* (pp. 415-432). De Gruyter Mouton. DOI: 10.1515/9781501500084-021

El País. (2016, April 30). *Fukushima (PT) | 360 VR Video | EL PAÍS Semanal* [video]. Retrieved from https://youtu.be/XQfEijZTLMI

Escandón M., P. (2019). *Quito, el otro turismo.* Universidad Andina Simón Bolívar. Retrieved from http://otroturismo.arsquitensis.net/?fbclid=IwAR3T0iOe3hqYfO0s8rKx7BXNmCwwRyMJGG5pSRi39bbZe9j_mLBGGSlG4-8

Falandes, C. G., & Angeluci, A. C. B. (2020). Produção de uma narrativa complexa: as estratégias utilizadas no webdocumentário Jovens e as Imagens – Relatos e Experiências em 360 Graus. *Revista Contracampo*, *39*(3), 1-18. DOI: 110.22409/contracampo.v0i0.42218

Falandes, C. G., & Renó, D. P. (2021). As narrativas imersivas no contexto da pós-fotorreportagem: o hyperlapse 360 graus como uma nova poética da fotografia em movimento. In V. Gosciola & F. Irigaray (Eds.), *Transmedia Storytelling e complexidades narrativas* (pp. 135-

158). Ria Editorial.

Falandes, C. G., & Renó, D. P. (2022a). Narrativas inmersivas durante la pandemia de Covid-19: Un análisis de videos 360 grados en YouTube. *Revista Panamericana de Comunicación*, *4*(1), 84–97. DOI: 110.21555/rpc.v4i1.2554

Falandes, C. G., & Renó, D. P. (2022b). Immersive Multi-Screen Journalistic Narratives: A Study on 360-Degree Language in the Context of the COVID-19 Pandemic. *Interactive Film & Media Journal*, *2*(4), 57–65. DOI: 110.32920/ifmj.v2i4.1675

Fisher, J. A., & Gifreu-Castells, A. (2022). The Ethics of Realism as a New Media Language in Immersive Media. *Revista FAMECOS*, *29*(1), 1-11. DOI: 110.15448/1980-3729.2022.1.43375

Gaudenzi, S. (2013). The interactive documentary as a living documentary. *Doc On-line*, (14), 9-31. Retrieved from www.academia.edu/69282294/The_interactive_documentary_as_a_Living_Documentary

Gervaiseau, H. A. (2012). *O abrigo do tempo: abordagens cinematográficas da passagem do tempo*. Alameda Editorial.

Gil, A. C. (2022). *Como elaborar projetos de pesquisa* (7th ed.). Atlas.

Henn, R. (2009). Do documentário ao jornalismo: acontecimento, tempo e memória em Cabra marcado para morrer. *Intexto*, *1*(20), 2-14. Retrieved from https://seer.ufrgs.br/intexto/article/view/10317

IFM (2022). *#IFM2022 WORKSHOP: Reconstruction 360 – Interpreting History on a 360˚ Platform*. Interactive Film & Media Blog. Retrieved from https://interactivefilm.blogspot.com/search/label/%23IFM2022%0AWorkshop

Machado, A. (2011). Novos territórios do documentário. *Doc On-line: Revista Digital de Cinema Documentário*, (11), 5-24. Retrieved from www.eca.usp.br/acervo/producao-academica/002444475.pdf

Martínez-Zárate, P. (Diretor). (2017). *Momento MX – panorama de las industrias creativas de México* [documentary]. Arca. Retrieved from de www.momentomx.com

Metz, C. (1975). Le signifiant imaginaire. *Communications*, (23), 3-55. Retrieved from www.persee.fr/doc/comm_0588-8018_1975_num_23_1_1347

Mundhenke, F. (2020). From i-doc to VR experience: new forms of user engagement in immersive digital documentaries. *New Cinemas: Journal of Contemporary Film*, *17*(1), 37-48. DOI: 110.1386/ncin_00003_1

O Liberal. (2021, September 22). *A Promessa de Iracema* [video]. Retrieved from https://youtu.be/L-HyljsKPQE

Odin, R. (2012). Filme documentário, leitura documentarizante. *Significação: Revista de Cultura Audiovisual*, *39*(37), 10-30. DOI: 110.11606/issn.2316-7114.sig.2012.71238

Özdem, Ö. M. (2021). 360-Degree Video and Social Change: A Comparative Analysis of the Documentary Films Exiled (2019) and Behind the Fence (2016). *Kültür ve letisim*, *24*(1), 66-92. DOI: 110.18691/kulturveiletisim.830028

PBS (n.d.). *Reconstruction: America After the Civil War*. Retrieved from www.pbs.org/weta/reconstruction/

Penafria, M. (2014). A Web e o documentário: uma dupla inseparável? *Aniki: Revista Portuguesa da Imagem em Movimento*, *1*(1), 22-32. DOI: 110.14591/aniki.v1n1.55

Penafria, M. (2018). Algumas questões sobre o documentário e outros tantos equívocos. *Biblioteca on-line de ciências da comunicação – BOCC*, 1-4. Retrieved from www.bocc.ubi.pt/pag/penafria-manuela-2018-questoes-documentario.pdf

Pereira, S. da C. (2020). *Do fotojornalismo ao jornalismo visual: um estudo do processo de produção de relatos jornalísticos com imagens técnicas em três redações brasileiras* [doctoral dissertation, Universidade Federal de Santa Catarina]. Repositório Institucional UFSC.

Pérez-Seijo, S. (2018). Ilusión de presencia en vídeos 360º: Estudio de caso de las estrategias del Lab RTVE.es. *Doxa Comunicación,* (26), 237-246. Retrieved from https://revistascientificas.uspceu.com/doxacomunicacion/article/view/517

Pérez-Seijo, S., & Vicente, P. N. (2022). After the Hype: How Hi-Tech Is Reshaping Journalism. In J. Vázquez-Herrero, A. Silva-Rodríguez, M. C. Negreira-Rey, C. Toural-Bran & X. López-García (Eds.), *Total Journalism: Models, Techniques and Challenges* (pp. 41-52). Springer.

Ramos, F. P. (2008). *Mas, afinal... o que é mesmo documentário?* Editora Senac.

Renó, D. (2013). Diversidade de modelos narrativos para documentários transmídia. *Doc On-line*, (14), 93-112. Retrieved from http://docplayer.com.br/23688581-Diversidade-de-modelos-narrativos-para-documentarios-transmidia.html

Renó, D. (2020). Pós-fotorreportagem e os desafios das novas narrativas audiovisuais. *Anuario Electrónico de Estudios en Comunicación Social "Disertaciones"*, *13*(2), 1-12. DOI: 110.12804/revistas.urosario.edu.co/disertaciones/a.8321

Renó, D., & Flores, J. (2018). *Periodismo Transmedia*. Ria Editorial.

Ribeiro, L. (n.d.). *Portfólio – distribuição e impacto A Promessa de Iracema*. Retrieved from https://larissaribeiro.site/distribuicao-inside/

Rodríguez-Fidalgo, M. I., & Paíno-Ambrosio, A. (2020). Use of virtual reality and 360° video as narrative resources in the documentary genre: Towards a new immersive social documentary? *Catalan Journal of Communication & Cultural Studies*, *12*(2), 239-253. DOI: 10.1386/cjcs_00030_1

Santana, L. (2021, October 7). Experiência virtual em 360 graus leva público para o meio da procissão do Círio. *O Liberal*. Retrieved from www.oliberal.com/cirio/experiencia-virtual-em-360-grau-leva-publico-para-o-meio-da-procissao-do-cirio-1.443658

South Carolina ETV/National Endowment for the Humanities. (2019-2023). *Reconstruction 360*. Retrieved from www.reconstruction360.org

Schoch, K. (2020). Case study research. In G. J. Burkholder, K. A. Cox, L. M. Crawford & J. H. Hitchcock (Eds.), *Research design and methods. An applied guide for the scholar-practitioner* (pp. 245–258). SAGE Publications.

Sirkkunen, E., Vázquez-Herrero, J., Uskali, T., & Väätäjä, H. (2021). Exploring the immersive journalism landscape. In T. Uskali, A. Gynnild, S. Jones, & E. Sirkkunen (Eds.), *Immersive journalism as storytelling: ethics, production, and design* (pp. 13-24). Routledge.

Soler-Adillon, J., & Sora, C. (2018). Immersive Journalism and Virtual Reality. In M. Pérez-Montoro (Ed*.), Interaction in Digital News Media: from principles to practice* (pp. 55-83). Palgrave Macmillan.

Teixeira, M. (2019). *Guia on-line e de acesso gratuito para roteirização de documentários imersivos* [master thesis, Universidade Estadual Paulista]. Repositório Institucional Unesp.

The New York Times. (2015, November 6). *The Displaced | 360 VR Video | The New York Times* [video]. Retrieved from https://youtu.be/ecavbpCuvkI

Ufersa (2019). *Caatinga 360*. Universidade Federal Rural do Semi-Árido. Retrieved from https://caatinga360.ufersa.edu.br/

Vargas, H. (2018). Apresentação. In A. S. Kurtz & H. Vargas (Eds.), *Jornalismo e documentário: diálogos possíveis* (pp. 7-12). Appris.

Vázquez-Herrero, J., & Pérez-Seijo, S. (2022). Capítulo 11. Narrativas interactivas e inmersivas. *Espejo de Monografías de Comunicación*

Social, (7), 173-183. DOI: 10.52495/c11.emcs.7.p92

Vitale, P. (2019). Amazônia em 360 graus. *Veja*. Retrieved from https://complemento.veja.abril.com.br/brasil/amazonia-em-360-graus/index.html

Weidle, F. (2018). How to reconcile that flinch: Towards a critical analysis of documentary situations in 360˚ and VR environments. *Participations: Journal of Audience & Reception Studies, 15*(1), 412-426. Retrieved from www.participations.org/Volume%2015/Issue%201/24.pdf

Yin, R. K. (2018). *Case study research and applications: design and methods* (6th ed.). SAGE.

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