Received: 30/04/20

Accepted: 27/05/20

Use of New Narratives for COVID-19 Reporting: From 360° Videos to Ephemeral TikTok Videos in Online Media

Pavel Sidorenko-Bautista Francisco de Vitoria University (Spain) José María Herranz de la Casa Juan Ignacio Cantero de Julián University of Castilla-La Mancha (Spain)

> The disruptive evolution of technology has impacted on all aspects of communication. Consequently, various alternatives are being developed for storytelling, delivering messages, and connecting to people.

> The evolution of social media and multimedia technologies is evident. Since 2014, we have witnessed changes both in the concept of immersion over the 360° format and virtual reality. Such changes aim at much closer proximity between user and content, strengthening possible empathic bonds.

> Even so, emerging audiences, especially Generation Z, spend time in digital environments that do not support this type of content. As a consequence, their

interactions and multimedia behavior focus on vertical, ephemeral content, rendering TikTok as an innovative alternative with a significant growth trend. This study proposes a review of media outlets and journalists' work reporting on the COVID-19 pandemic using 360° multimedia narratives and Tik-Tok. Research shows evidence of the limited use of the immersive multimedia format and the increase of productions in the ephemeral vertical format of TikTok —whose audience reach has grown significantly.

Keywords: COVID-19, 360 video, ephemeral video, journalism, Generation Z.

NEW TECHNOLOGIES AND GREATER DIGITALIZATION

The world is going through its Fourth Industrial Revolution, this is a context where the fast evolution of technology has been decisive in all developmental areas of communication (Schawb, 2016). At the same time, these changes influence social dynamics and increase the complexity of message distri-



bution among an increasingly segmented audience (Andriessen and Vartiainen, 2006). This context leads to reassessing McLuhan's "the media is the message" and considering "people is the message" (Cardoso, 2014), generating disruptive change in the relationship between sender-receiver-message (Fernández, 2011).

The emphasis falls on online communications, interactive, and multimedia, which translates in the constant development of new alternatives for story construction and communicating (Herranz, Sidorenko, and Cantero, 2019).

As a consequence, the definition of new professional profiles arises: i.e., social media producer, user engagement specialist, or *Facebook live* producer (Adornato, 2017). The future of communications is uncertain. It aims to technologies such as *blockchain*, artificial intelligence (*chatbots*, virtual assistants), internet of things (Herranz, Sidorenko, and Cantero, 2019), and definitely towards a content ubiquity model where the user will not be able to avoid messages and stimuli (Salaverría, 2018).

JOURNALISM, MOBILITY AND INTERCONNECTED AUDIENCES

Interconnected users can be organized into generations to delineate and comprehend their interactions and digital consumption. A generation references a set of related phenomena that lead to a generational gap, while the members of one group experience social proximity as a result of shared events, especially those of cultural nature (Parry and Uwin, 2011).

The most recent segmentation is that of Generation Z, also referred to as the digitally native generation, because, generally speaking, they were born with full internet access available, and above all, wireless internet, which has significantly conditioned their communicational habits (Baysal, 2014; Prensky, 2001; Turner, 2015).

Visual Capitalist conducted a study using *Global Web Index* data (see https://bit.ly/2z847oR). They studied the digital behavior of people during the first month of social confinement, a consequence of the COVID-19 pandemic. The sample comprised the activity of 4,000 users in the United States and the United Kingdom and reached the conclusion that Generation Z consumes, largely, online video, on-demand television, on-demand music, and videogames. Millennials coincide in all these items in addition to a great interest in obtaining information from digital news sources. Generation x, although consuming more conventional television, is barely under the consumption index of online video and on-demand TV of the first two segments compared.

As it is likely to presume, boomers tend to consume content mainly on traditional media, although with some exceptions. Nevertheless, the coincidence of multimedia consumption is worth mentioning, conditioned by the social media phenomena (IAB, 2019). There has been significant growth in this trend as a consequence of the quarantines imposed in different countries and aimed at containing COVID-19 contagion: more time spent at home, more opportunities for interconnection, and lessening the effects of social distancing.

The evolution of these technologies has brought new possibilities for creating stories. Six years have passed, with ups and downs, in the development of

the 360° format with immersive capabilities. A short period that testifies to the significant progress of the virtual reality concept, closely linked to this type of content.

Virtual reality proposes immersion and interaction, allowing the user to reach a feeling of living an event without being physically involved, using a device over the head. In other words, an individual wearing a digital interface reaches physical and emotional perceptions similar to actual life (Mütterlein, 2018; Sidorenko, Cantero, and Herranz, 2017; Vázquez and López, 2017). Achieving a complete immersive sensation only when the device used to visualize this type of content offers user movement. That is to say, it allows us to be more involved with the content (De la Peña *et al.*, 2010; Pavlik, 2001; Pryor, 2000).

This format enhances informative possibilities presenting a complete visual range, as well as an emotional and empathic connection between audience and content (Aitamurto, 2018; Witt *et al.*, 2016). This connection is the reason why journalism added this resource since 2014 (Pérez-Seijó, 2016: 408) to connect stories and information with the public in a different manner, laying the way for the concept of *immersive journalism* (Peña *et al.*, 2010; Domínguez, 2013).

The New York Times, USA Today, ABC, Euronews, BBC, The Guardian, RTVE, and El País have been referenced cases in the subject despite a significant decrease and, even a total halt in the production of this type of content, except for Euronews.

Nevertheless, the usual digital behavior of the younger interconnected generations, such as Generation Z, is vertical, due to the natural interactive disposition of smartphones, leading to apps and social media that do not support the 360° format. The most successful cases that we can mention today are Snapchat, Instagram, and TikTok.

The ephemeral multimedia logic stems from them because its content requires brief attention from users (Yang, Zhao, and Ma, 2019). And even though it already has a couple of years, TikTok is today a proper vertical revolution (González, 2019) because of its particular message code: short, fun, entertaining, conceived by community proposed challenges and with a tendency to reward *nano-influencers* (Merca2.0, 2020). A social network where user participation is led by suggested *hashtag-challenges*, whose success and visibility rely upon the degree of involvement of people.

This type of participation has ushered TikTok's extraordinary growth since it has become a scape valve in the context of the quarantine stemming from the COVID-19 pandemic (Refojos, 2020; Rodríguez, 2020; Willingham, 2020).

The user community is composed, mainly, by Generation Z (Rapkin, 2017; Yang, Zhao, and Ma, 2019), although these indicators are prone to change during 2020, since, as a consequence of the confinement, many millennials have started participating in this network. It is worth remarking the incremental presence of the media and journalists. The Washington Post was among the first to join, although, is also worthy of note the global presence of Antena 3 Noticias, *USA Today*, NBC News, Al Jazera, or Business Insider, among others who are trying to adapt to the particular message code.

METHODOLOGY

The COVID-19 pandemic has shaken the globe, leaving notable displays of emotion and feelings, both positive and negative. The social expectation to know what is happening, the testimony of those involved, the numbers, official statements, and diverse interpretations have filled the media agenda and have notably increased the flow of content in digital channels. Some authors warn of high levels of "infoxication" (López, 2020) due to an excess of related content or "infodemic" (Papapicco, 2020) alluding to a parallel pandemic of fake news and rumors related to the virus.

Despite the coverage of the pandemic by traditional media, there is also significant work on online media. Related to the journalistic work using new narratives, and because the 360° multimedia format with immersive capabilities produces empathy between audience and content, this study proposes a review of the coverage of facts using this format.

We propose evidencing, who has covered the pandemic using this format? Since when? And, what is the type of themes developed?

Considering the data referenced by Visual Capitalist and taken from the Global Web Index, and due to the digital phenomena rising to the heat of these events, the vertical, ephemeral format has been considered as another new narrative, departing from the particular experience of TikTok.

As with the previous case, for this format, we propose evidencing How this particular channel delivers information? Who is doing it? And, Since when?

The initial hypotheses are:

- H1: Reference media outlets for 360° video have continued coverage of COV-ID-19 with this narrative.
- H2: 360° video narrative is very relevant for storytelling and news during the COVID-19 pandemic.
- H3: Media outlets have used TikTok's ephemeral videos to inform about COV-ID-19 and precautions during the pandemic.

Regarding 360° video, we searched the leading platforms that offer this type of media: YouTube, Facebook, and Veer. The first two because they are the most popular social networks that support the format and the last one because it is a social network born in China and called to be the largest repository of 360° multimedia on the internet.

The search terms used where: *coronavirus, covid-19, isolation, confinamiento* (confinement), *cuarentena* (quarantine), *pandemia* (pandemic), *virus*. In the same manner, we also visited networks that support the 360° video format to verify the information distributed using this format and to confirm search results.

We established five profile categories to build analytic charts:

- 1. public institution/governmental authority
- 2. religious institutions
- 3. media outlets/journalists

- 4. media production companies and
- 5. personal accounts

We also established five thematic categories to publications under scrutiny:

- A. medical data
- B. urban situation
- C. home confinement
- D. awareness
- E. hospitals and clinics situation

Time of publication was a variable considered, since, due to the quick evolution of events, the tone of the January publication's is different from those published in April.

Videos that albeit containing terms such as *covid-19* or *coronavirus* in the title did not have an informative intent or were not related to the topic where excluded from the study. Presumably, those terms where included to optimize search results in this context.

We built the TikTok analytic chart considering media outlets with a general journalistic profile, the number of publications until the review date, content that directly addresses the pandemic, and content tone: entertainment (E) or informative (I).

In this manner, two new narratives emerge one that tries to establish a greater empathic connection between audience and content and another that has been the hype during the quarantine, transcending its primary audience.

The period of analysis for web reviews began on January 1st, as the starting point of the pandemic, and end April 20th, 2020, equivalent to 16 weeks (4 months).

Summarizing, the goal of this study is to register the evidence of how the situation derived from the COVID-19 pandemic is informed and documented through new narratives based on the two formats and networks previously mentioned.

RESULTS

The recount of 360° videos delivered a total of 64 publications that directly referenced the situation derived from the COVID-19 pandemic.

The majority of content in this group intended to show the conditions of urban areas in the publisher's surroundings, especially with an emphasis on human activity in those areas.

Chart 1. Analytical chart of 360° publications, with immersive capabilities, about COVID-19 on YouTube, Facebook and VeeR, January 1st – April 20th, 2020

Profile	Profile category	Content category	Date	Platform and link	
TVR Sanal Gerçeklik Kanalı	5	В	05/02/20	YT - https://bit.ly/3cBWqFV	
CGTN	3	Е	20/02/20	YT - https://bit.ly/3eCbPbc	
CGTN	3	В	26/02/20	YT - https://bit.ly/2XUh28d	
VirtualEyze-VR	4	D	03/03/20	YT - https://bit.ly/2KoqQPX	
T13	3	E	05/03/20	YT - https://bit.ly/2znNqpT	
FXG	5	В	09/03/20	YT - https://bit.ly/3cPBRGr	
VRAS	4	D	15/03/20	YT - https://bit.ly/3cCPCb9	
Siente el BIT	4	В	16/03/20	YT - https://bit.ly/2RWaz8W	
Siente el BIT	4	В	16/03/20	YT - https://bit.ly/34RUWF2	
360 grados	5	В	17/03/20	YT - https://bit.ly/2RUJyCQ	
Andy Kay	5	В	17/03/20	YT - https://bit.ly/3bsRoeV	
Andy Kay	5	В	18/03/20	YT - https://bit.ly/2yx1CMM	
Josh Grambo	5	С	18/03/20	YT - https://bit.ly/3bqJG4Q	
Inre Sinnesvilja	5	В	18/03/20	YT - https://bit.ly/34UoyS5	
360VR Medio Solutions	4	В	18/03/20	YT - https://bit.ly/2VLwlgR	
Kevin Kunze	5	В	19/03/20	YT - https://bit.ly/2KkZ7zG	
Cinetique Inmersion	4	D	19/03/20	YT - https://bit.ly/34RXW4g	
Insta 360 Tube	4	В	20/03/20	YT - https://bit.ly/34Y6Q0e	
dorfi360	5	В	20/03/20	YT - https://bit.ly/2KkiY25	
CGTN	3	E	21/03/20	YT - https://bit.ly/3eE1gV3	
El Crítico	5	В	22/03/20	YT - https://bit.ly/2RV4ZE7	
dorfi360	5	В	22/03/20	YT - https://bit.ly/2VLgXRL	
All things Branson	5	В	22/03/20	YT - https://bit.ly/2VMHYUL	
Hugh Hou	5	В	22/03/20	VeeR - https://bit.ly/2VrcHYH	
Szidor N. Gábor	5	В	22/03/20	VeeR - https://bit.ly/3eKHZkL	
WyoColo Experience	5	В	23/03/20	YT - https://bit.ly/3arEHj1	
WyoColo Experience	5	В	24/03/20	YT - https://bit.ly/3cBlo8r	
WyoColo Experience	5	В	24/03/20	YT - https://bit.ly/2Kn7meL	
Worldwide Reality Videos	4	В	24/03/20	YT - https://bit.ly/2VOwmAB	

Profile	Profile category	Content category	Date	Platform and link	
The1 VR	4	D	24/03/20	YT - https://bit.ly/2wUmCMO	
Gaba VR	5	В	24/03/20	YT - https://bit.ly/2x2Akxc	
WyoColo Experience	5	В	25/03/20	YT - https://bit.ly/2RYRkM9	
WyoColo Experience	5	В	25/03/20	YT - https://bit.ly/3arBVuf	
Sputnik France	3	В	25/03/20	YT - https://bit.ly/3aqKUvF	
Philips Argueta	5	В	25/03/20	YT - https://bit.ly/2xNAFUZ	
Surgical Theater	4	А	26/03/20	YT - https://bit.ly/2xNyBMJ	
Vila 360 VR Videos	4	В	27/03/20	YT - https://bit.ly/2xMofwL	
MAD Channel	5	В	28/03/20	YT - https://bit.ly/3cBqamn	
Exploring theWorld	5	В	29/03/20	YT - https://bit.ly/2VwJXxT	
Damien Gilbert	5	В	30/03/20	YT - https://bit.ly/2yAyCn3	
TARGO	4	В	01/04/20	VeeR - https://bit.ly/2RVezXh	
CGTN	3	E	02/04/20	YT - https://bit.ly/3amV804	
Urbanist – History of Cities	5	В	05/04/20	YT - https://bit.ly/2KpzDkM	
Felix Mizioznikov	5	В	05/04/20	YT - https://bit.ly/3bvL1Y4	
WyoColo Experience	5	В	06/04/20	YT - https://bit.ly/3atUmhT	
Nsocial Enriched Experimental Agency	4	D	06/04/20	YT - https://bit.ly/3czWmqg	
Abu Huraira Center	2	D	07/04/20	YT - https://bit.ly/3ar17RD	
José Ortega	5	В	07/04/20	YT - https://bit.ly/351K2wA	
Agencia Casa Mais	4	В	09/04/20	YT - https://bit.ly/2VsmXA4	
James Z Wu	5	В	10/04/20	YT - https://bit.ly/2xQscjL	
Andy Kay	5	В	10/04/20	YT - https://bit.ly/2wXWnVP	
Abu Huraira Center	2	D	13/04/20	YT - https://bit.ly/2zioRKJ	
Men on Tour Live	5	В	13/04/20	YT - https://bit.ly/2XVP64	
Andy Kay	5	В	15/04/20	YT - https://bit.ly/34UXcv6	
Andy Kay	5	В	16/04/20	YT - https://bit.ly/3eCbfdw	
VR Gorilla	4	В	17/04/20	YT - https://bit.ly/2VKjwUd	
Sputnik France	3	В	17/04/20	YT - https://bit.ly/2XWkBeq	
AbbiLee360	5	С	18/04/20	YT - https://bit.ly/3eLB8YD	
WyoColo Experience	5	В	18/04/20	YT - https://bit.ly/3cO6PPd	

Profile	Profile category	Content category	Date	Platform and link
Abu Huraira Center	2	D	18/04/20	YT - https://bit.ly/2xM6FZu
Andy Kay	5	В	18/04/20	YT - https://bit.ly/3cwlJJw
Andy Kay	5	В	19/04/20	YT - https://bit.ly/2RYUnUB
Abu Huraira Center	2	D	20/04/20	YT - https://bit.ly/2VMrHiJ
Andy Kay	5	В	20/04/20	YT - https://bit.ly/3eG4o2H

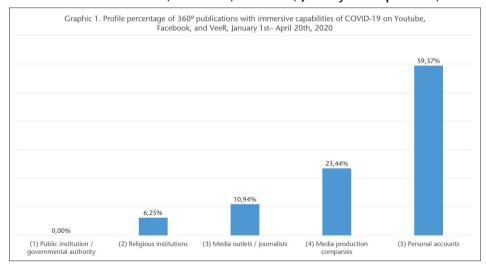
Source: Prepared by the authors.

The majority of this type of content was published from personal accounts, as shown in Chart 1 and represent 57% of the publications found, as illustrated in Graphic 1. The segment that follows, with a much smaller proportion is that of media production companies, who created content showing the situation in urban areas in the quarantine and confinement regime applied globally as a consequence of the pandemic (13%). Both segments account for 70% of the immersive content studied.

Chart 1 also evidences that a mayor flow of communications took place in March, followed by April. Conversely, February has barely any evidence of activity and January none.

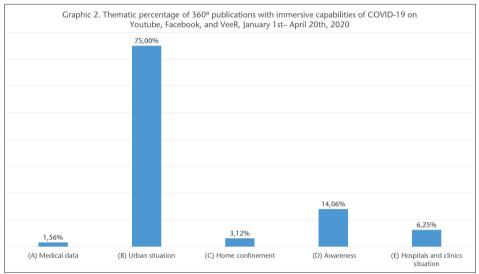
Another aspect worth noting is that 95% of the publications appeared on You-Tube (Graphic 2) and the remaining 5% on VeeR. In contrast, there is no registry of content with similar characteristics on Facebook during the period studied.

Graphic 1. Profile percentage of 360° publications with immersive capabilities of COVID-19 on YouTube, Facebook, and VeeR, January 1st– April 20th, 2020



Source: Prepared by the authors.

Graphic 2. Thematic percentage of 360° publications with immersive capabilities of COVID-19 on YouTube, Facebook, and VeeR, January 1st- April 20th, 2020



Source: Prepared by the authors.

Regarding TikTok and its ephemeral vertical content, the media outlets referenced in Chart 2, show that, in general, coverage of the global pandemic began at the end of January, when the information transcended Chinese borders. Nevertheless, some of them began producing content in a deferred way.

The News outlet of Costa Rica, NCR Noticias, began producing content in this social network on March 29th, that is to say, they premiered in this platform with coverage of the virus in their country. But this is not the case of RT or USA *Today* who started publishing what was happening in China.

Another important detail is that despite the message code dominating the web at the moment, most of the publications in these profiles had informative intent.

The Washington Post case is worthy of notice. This news outlet engaged in generating publications of the pandemic in a strict entertainment and comedy tone, respecting if you want, the content style that dominates in that platform.

Chart 2. Analytical chart of COVID-19 publications on TikTok by media outlets, January 1st– April 20th, 2020

Media Outlet	First COVID-19 publication	Total Nº of publications January-April 2020	Total Nº of COVID-19 and derived events publications January- April 2020	Tone of COVID-19 publications: Entertainment (E) or Information (I)
Al Jazeera (Qatar)	28 Jan	399	79	79 - I
Business Insider France (France)	28 Jan	28	8	3 – E / 5 - I
RT (Russia)	28 Jan	169	34	11 – E / 23 - I
NBC News (USA)	28 Jan	79	7	1 – E / 6 – I
USA TODAY (USA)	30 Jan	188	35	16 – E / 19 – I
Times Now (India)	31 Jan	378	85	85 - I
NBC Chicago (USA)	4 Mar	37	5	1 – E / 4 - I
Washington Post (USA)	4 Mar	309	41	41 - E
El Tiempo (Colombia)	10 Mar	29	2	2 - E
Antena 3 Noticias (Spain)	13 Mar	43	3	2 – E / 1 - I
Business Insider India (India)	18 Mar	22	12	12 – I
National Post (Canada)	18 Mar	42	7	1 – E / 6 – I
NCR Noticias (Costa Rica)	29 Mar	11	9	9 - 1
TOTAL		1734	327	78 – E / 249 - I

Source: Prepared by the authors.

TikTok has included in its home page a button labeled COVID-19 that redirects to a section labeled "Coronavirus". This section contains informative content from the World Health Organization, Red cross Bizkaia, World Economic Forum, International Organization for Migration (UN), International Federation of Red Cross and Red Crescent Societies.

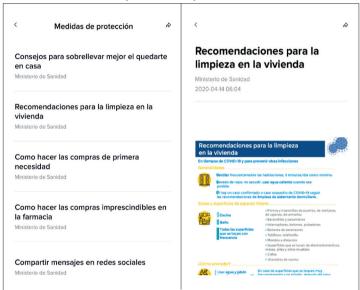
Stands out in this section on TikTok that, in contrast to Facebook's "Coronavirus COVID-19 information center", there is no collection of Journalistic sources treating the subject, only voices of NGOs and health authorities.

This informative content is presented in many different ways: as audiovisuals in a vertical format with duration no longer than 15 seconds, as well as live casts,

which, at the moment, are only available to profiles with more than one thousand followers.

Furthermore, there are two additional buttons: "Preventive measures" and "Questions and answers." The first one leads to advice and actions aimed at awareness and hygiene, published by the Ministry of Health (in this case, Spain, the country where the review took place) (image 1). The second button presents a series of frequent questions on symptomatology, actions needed after contagion or, hygiene practices, and measures to avoid it (image 2).

Images 1 and 2. Information contained in the button "Protective measures" of the COVID-19 pandemic specific section on TikTok



Source: TikTok. Viewed 04/18/2020.

The "Coronavirus" section shows hashtag-challenges deliberately created to involve users with current events related to the pandemic. Institutions or authorities promote these tags; the remaining content belongs to anyone who adds the tag to their publication. These challenges are #yomequedoencasa (I stay at home), #manosseguras (safe hands), #10toqueschallege (10contacts challenge —bouncing a roll of toilet paper ten times without letting it fall on the floor), #conciertoenmibalcon (balcony concert), #fitnessencasa (fitness at home), #showencasa (home show).

The majority of media outlets does not participate in these challenges, although they include their coronavirus content through trends (*hashtags*) such as #covid19, #coronavirus, #lockdown, #isolation, or #pandemic. The lack of participation in these challenges explains why they do not gain visibility in the "COVID-19" section, where only NGOs and users participate.

The informative bias also stands out in TikTok, the search engine gives more visibility to this type of content, aiming at engaging a more significant number of users.

Image 3. Promotion of the "Coronavirus" section in TikTok's trends section



Source: TikTok. Viewed 04/18/2020.

DISCUSSION

Establishing a first comparison of the leading intermediaries of the various informative pieces derived from the global COVID-19 pandemic and developed with new narratives such as 360° video with immersive capabilities, we can point out that user-generated content predominates. Only three news media outlets produced 360° content: Sputnik France (Russian media outlet with French correspondents), T13 (Chilean media outlet), CGTN (Chinese media outlet with global reach). In the first case, as with most of the publications mentioned, the focus was on the low affluence of people in urban areas. Concurrently, T13 —having only one report with these characteristics— and a few publications from CGTN, showed the situation of health professionals and hospitals in the context of the emergency.

None of the cases showed evidence of content aimed at raising awareness. However, one of the roles of journalism is to educate and guide, especially in this type of situation where social uncertainty, doubts, and an increasing flow of inaccurate and fake content are warned by fact-checkers such as Maldita.es and Newtral (see https://bit.ly/3cIfKBI https://bit.ly/2XYgxKC>).

It draws attention that in other past catastrophes and humanitarian crises, this format has played an essential role in the construction of stories about the facts, and directed at reaching greater audience involvement. These past events

have made evident different players such as the immersive journalist (see The New York Times and the report on the war in Irak http://bit.ly/2Ry4Za9), the lead actor or leading journalist (see ABC news and Hong Kong's 2019 protests coverage, https://bit.ly/2VBEaXu), or the journalist narrator (see The Guardian report on the war in Mosul https://to.pbs.org/2S6qSAb) (Herranz, Sidorenko and Cantero, 2019).

In all those cases, the use of the format responded to its powerful informative and emotional load, but there is no confirmation of its implementation under the present circumstances. Stands out that none of the international news outlets representatives of the 360° immersive format have published anything of that kind. When reviewing the activity of The New York Times, BBC, CNN, Euronews, or RTVE, there is no evidence of reports in this format with coverage of the current global situation.

Nor do governmental institutions or NGOs, which in other crises and conflicts such as the refugee crisis (see Medecins Sans Frontieres https://bit.ly/2yH6EGB) have produced reports with these characteristics aiming at more audience involvement with the facts. Additionally, the production of some of this content was made possible with the collaboration of news outlets.

It is true that on YouTube as well as on Facebook, there are links that lead to more information on the COVID-19 pandemic. Still, in these sections, there is no reference to 360° videos or photographs with immersive capabilities. Even less in the VeeR platform, that although being Chinese does not offer anything of the kind.

Regarding TikTok, although there is a more significant number of informative publications related to the pandemic, the ones published by the Indian news outlet Times now, for example, are mostly not tailored, narrative-wise, for this platform. These productions were intended for other digital platforms such as YouTube (see https://bit.ly/2Yg15JT and https://bit.ly/2VMvaPA) and displayed in horizontal mode. Something similar happens to the Spanish news outlet Antena 3 Noticias (see https://bit.ly/2YiaPDm), and NCR Noticias (see https://bit.ly/2KIKDKh).

On the contrary, Business Insider India (see https://bit.ly/2VMwxOe) and Al Jazeera (see https://bit.ly/2SnyFd7) sustain a strictly journalistic tone, tailoring the content to the interface of this social network. However, we must highlight the work of The Washington Post (see https://bit.ly/3cZcgKV), NBC News (see https://bit.ly/3cZcgKV), NBC News (see https://bit.ly/3cZcgKV), which use the native production resources of the social network, resulting in natural and creative aesthetics akin to the informative proposition.

Nevertheless, as Chart 2 shows, The Washington Post has rendered the particular code of the platform entirely. As a consequence, although they reference the different moments associated with the pandemic and the social confinement that ensued, the content has a high comedy and entertainment tone.

Be it as it may, all cases are an innovative approach of media outlets and journalists to deliver information to emerging audiences. A relevant fact considering

the initial research on media during the COVID-19 period. As stated by Casero-Ripollés (2020: 10), research shows that news consumption and the positive appraisal of informative coverage during the pandemic have increased in users "previously barely connected like young people, people with less information, and the occasional consumers of information."

From the standpoint of visualization, if we do a random review of the number of views of the 360° content referenced here, the media network that accumulates the most significant figure is the Chinese network CGTN with close to 13,000. In contrast, TikTok's user community participation around *hashtag-challenges* such as #yomequedoencasa (I stay at home) rises to 2.4 billion views, without being able to quantify the total number of videos published under that tag. Or, for example, #manosseguras (safe hands), that by the time measurement of the sample ended, gathered 4,2 billion views. More playful tags such as #conciertoenmibal-cón (balcony concert) accumulated in the same period 26 million views.

In the same way, NBC news pandemic related content goes from 10,000 up to almost 700,000 views (see https://bit.ly/3aP7rm9), or USA TODAY from 10,000 up to 242,000 views (see https://bit.ly/2We5vOG). These figures show that TikTok messages related to the pandemic have more reach than 360° content.

One interesting finding, in the case of 360° immersive content, is that the spectrum of spiritual and religious voices and speakers register only one participant from Abu Huraira Center, who, from the Islamic point of view, and based in Canada, aims at building awareness within its congregation.

Despite the novel narrative of both formats, after the examples mentioned, its visible a significant decline of the possibility to capture attention and greater involvement of journalistic actors around $360^{\rm o}$ immersive content in contrast with ephemeral videos, primarily through TikTok, where there is evidence of a compelling creative process.

CONCLUSIONS

Since 2015, immersive journalism has focused on the coverage of topics with a significant social impact, requiring more user empathy, or related to situations or places with difficult access. Some examples are, the nuclear accident at Fukushima (https://bit.ly/2VZlaBt), the refugee drama (https://bit.ly/2VZlaBt), or discovering the inside of North Korea (https://bit.ly/3aAg43T).

The global situation derived from the COVID-19 pandemic brought an appropriate context for media networks and journalists to opt for this narrative to expose the conditions in hospital and retirement homes. Reporting desolated places that previously showed dense demographic concentration, and that, due to confinement, show an unrecognizable appearance.

For example, in Spain, Antena 3 Noticias produced several journalistic pieces in the program series called *En primera línea*. The first one showed the hard work performed by health personnel at different hospitals, fighting the pandemic in question. But the report was done in conventional multimedia format.

The New York Times case is even more conspicuous because, until today, it was an essential representative of the use of this type of digital narrative. Although not the first media outlet to exploit this narrative, it indeed has a consistent production output with a great variety of topics. Despite its been months since the last 360° content post, they have experimented with other types of alternative narratives, such as augmented reality. The New York Times offers a mobile app that tells users, in real-time, the correct distance they should have with other people, thus complying with social distancing health recommendations (see <https://nyti.ms/3cPzpPR>).

The majority of 360° content that addresses topics related to the COVID-19 were made by individuals, which presumably opted for YouTube because its a social network that attracts the participation of a higher number of segments of the global audience. This trend would probably be the main reason why there is no evidence of this type of content on Facebook.

With all this, the first hypothesis does not apply since the referring $360^{\rm o}$ video media networks did not produce coverage of COVID-19 with this narrative. There is corroboration for the second hypothesis: the $360^{\rm o}$ video narrative, is very relevant for storytelling and news during the COVID-19 pandemic, as evidenced by the videos made by individuals, by some media networks and because of the use of this technology in other situations of crisis or war.

Media networks and journalists are absent from the informative section proposed by TikTok for COVID-19, where the information comes directly from health organizations and health authorities. Nevertheless, the majority of media networks referenced in this social network have been producing informative content on prevention and pandemic updates. This output confirms the third hypothesis, although in some cases, the messages are more focused on entertainment and align with the social network's tone.

As a consequence of this and the production resources made available by the social network to the users, much of the content considered informative has a particular aesthetics that may generate confusion in other platforms or digital outlets. This effect is part of the innovation process applied by journalists to reach younger audiences.

Hence, we are in the process of narrative evolution where vertical format, short, creative content adapts to mobile consumption and dominates in every sense. In the same manner, the development and popularity of virtual reality and the 360° format in the coming years will be subject to the global deployment of 5G networks, with the resulting betterment of graphic quality and the higher performance of *streaming* solutions.

Pavel Sidorenko-Bautista (pavel.sidorenko@ ufv.es). Professor in the Advertising Bachelor's degree at the Faculty of Communication Sciences of Francisco de Vitoria University.

Previously, he was a professor at the Faculty of Communication of Castilla-La Mancha University, Faculty of Information and Communication Sciences at Monteávila Universi-

ty (Caracas) and the Social Communication Master's degree at Central University of Venezuela (Caracas), lecturing on Journalism, Political Communication and History.

Ph.D. from the Faculty of Journalism (today Faculty of Communications) at Castilla-La

Mancha University. His research focuses on new narratives applied to communication. He has published various studies on immersive journalism, social media, and new formats in corporate and advertising contexts. Available at: https://bit.lv/PavelSidorenko.

José María Herranz de la Casa (josemaria. herranz@uclm.es). Ph.D. on Journalism from the Complutense University of Madrid. He is currently a full professor at the faculty of Communication at Cuenca of Castilla-La Mancha University. Published several works and papers that explore his research interests: communication and transparency in social organizations and NGOs —the theme of his Ph.D. thesis—; corporate and organizational communication; social responsibility and the SDGs; innovation, specialized journalism (Sports and Environment) and immersive journalism/ virtual reality. All ar-

ticles are available on his blog: https://bit.ly/JMHerranz.

He worked as a journalist in the daily Sport's publication *MARCA*. A former professor at Ávila's Catholic University (UCAV), where he developed his work attached to the communications bureau. He has also been a professor at the Faculty of Human Sciences and Information of Miguel de Cervantes European University, UEMC (Valladolid). There he taught in the Bachelor's degree in Journalism, advertising, and Public Relations; he was also director of graduate studies and director of the communication and marketing bureau of UEMC for four years.

Juan Ignacio Cantero de Julián (juanignacio.cantero@alu.uclm.es). B.A. in Journalism and Master's degree in Teaching of mandatory secondary school, baccalaureate, professional training, and language teaching from Castilla-La Mancha University.

He has worked as a journalist for the online daily newspaper *El Deporte Conquense*. Founding member and financier of this project. He has taught on the global structure of the media, cyber journalism, sports journalism, the Spanish media system, Genres of interpretation, opinion, institutional and corporate communication at Castilla-La Mancha University. He is currently working on his Ph.D. thesis on environmental journalism while researching virtual reality and 360° video.

He is also the coordinator of *El Observador*, a digital publication of the Faculty of journalism of Castilla-La Mancha.

References

Aitamurto, T. (2018). "Normative Paradoxes in 360° Journalism: Contested Accuracy and Objectivity". *New Media & Society*, 00(0), pp. 1-17.

Adornato, A. (2017). *Mobile and Social Media Journalism: A Practical Guide*. California: CQ Press/SAGE.

Andriessen, E. and Vartiainen, M. (2006). *Mobile Virtual World. A New Paradigm*. Berlin: Springer.

Baysal, S. (2014). "Working with Generations X and Y in Generation Z Period: Management of Different Generations in Business

Life". Mediterranean Journal of Social Sciences, 5(19). pp, 218-229.

Cardoso, G. (2014). "Movilización social y medios sociales". *Vanguardia Dossier: El poder de las redes*, 50, pp. 6-13.

Casero-Ripollés, A. (2020). "Impacto del COVID-19 en el sistema de medios. Consecuencias comunicativas y democráticas del consumo de noticias durante el brote". *El Profesional de la Información*, vol. 29, no. 2, pp. 1-12.

Domínguez, E. (2013). Periodismo inmersivo. La influencia de la realidad virtual y del videojuego en los contenidos informativos. Barcelona: Editorial UOC.

Fernández, C. (2011). *Narrativa audiovisual*. Madrid: Centro de Estudios Financieros.

González, G. (2019, November 18). "TikTok alcanza los 1.500 millones de descargas y se coloca por encima de Instagram". Genbeta. Available at: https://www.genbeta.com/redes-sociales-y-comunidades/tiktok-alcanza-1-500-millones-descargas-se-coloca-encima-instagram>. Accessed 20 April 2020.

Herranz, J. M.; Sidorenko, P., and Cantero, J. I. (2019). "Realidad virtual y periodismo inmersivo: Nuevas formas de contar historias para los periodistas". In: Ufarte, M. J. (coord.). Nuevos perfiles profesionales para el mercado periodístico. Salamanca: Comunicación Social, pp. 127-148.

IAB (2019). Estudio anual de redes sociales 2019. Available at: https://iabspain.es/wp-content/uploads/2019/06/estudio-anual-redes-sociales-iab-spain-2019_vreducida.pdf. Accessed 18 April 2020.

López, E. (2020). "Las pandemias en el siglo XXI: Un desafío para la salud pública". *Actualización en Nutrición*, 21(1), pp. 1-3.

Merca2.0 (2020). *Guía para usar TikTok con tu marca*. Ciudad de México: Grupo de Comunicación Kátedra.

Mütterlein, J. (2018). "The Three Pillards of Virtual Reality? Investigating the Roles of Immersion Presence and Interactivity. Presented at Proceedings of the 51st Hawaii International Conference on System Sciences

2018, pp. 1407-1415. Available at: http://bit.ly/2DwcFHP>. Accessed 18 April 2020.

Papapicco, C. (2020). "Informative Contagion: The Coronavirus (COVID-19) in Italian Journalism". *Online Journal of Communication and Media Technologies*, 10(3), pp. 1-12.

Parry, E. and Urwin, P. (2011). "Generational Differences in Work Values: A Review of Theory and Evidence". *International Journal of Management Reviews*, 13(1). pp. 79-96.

Pavlik, J. V. (2001). *Journalism and New Media*. New York, NY: Columbia University Press.

Peña, N. de la; Weil, P.; Llobera, J.; Giannopoulos, E.; Pomés, A.; Spanlang, B., and Slater, M. (2010). "Immersive Journalism: Immersive Virtual Reality for the First-Person Experience of News". *Presence: Teleoperators and Virtual Environments*, 19(4), pp. 291-301.

Pérez-Seijó, S. (2016). "Origen y evolución del periodismo inmersivo en el panorama internacional". Presented at "De los medios y la comunicación de las organizaciones a las redes de valor". Actas del II Simposio de la Red Internacional de Investigación de Gestión de la Comunicación, pp. 402-418. Available at: http://bit.ly/2EZuQ4G>. Accessed 12 April 2020.

Prensky, M. (2001). "Digital Natives, Digital Immigrants". On the Horizon, 9(5). pp. 1-6.

Pryor, L. (2000). "Immersive News Technology: Beyond Convergence". *Online Journalism Review*. Available at: http://www.ojr.org/ojr/technology/1017962893.php. Accessed 18 April 2020.

Rapkin, M. (2017, November 1). "The Social Media Platform that Has Gen Z Obsessed". *The Wall Street Journal*. Available at: https://www.wsj.com/articles/the-social-media-platform-that-has-gen-z-obsessed-1509586335. Accessed 20 April 2020.

Refojos, M. (2020). "TikTok, la vía de escape de millones de personas durante la cuarentena". El Periódico. Available at: https://bitch.la-via-de-escape-de-millones-de-personas-durante-la-cuarentena-7908651>. Accessed 20 April 2020.

Rodríguez, D. (2020, April 17th). "TikTok no es solo para chavos: Cómo la cuarentena detonó el humor de México en esta red". *Verne El País*. Available at https://verne.elpais.com/verne/2020/04/15/mexico/1586920747_914636.html. Accessed 20 April 2020

Salaverría, R. (2018). "Allá donde estés habrá noticias". *Cuadernos de Periodistas*, 35, pp. 15-22.

Schwab, K. (2016). *La cuarta revolución industrial*. Barcelona: Debate – Penguin Random House Grupo Editorial.

Sidorenko, P.; Cantero, J. I., and Herranz, J. M. (2017). "La realidad virtual y el formato multimedia en 360º como mecanismo de enriquecimiento de los contenidos periodísticos". In: Sierra, J. (coord.). Nuevas tecnologías audiovisuales para nuevas narrativas interactivas digitales en la era multidispositivo. Madrid: McGraw Hill Education – Camilo José Cela University, pp. 99-108.

Turner, A. (2015). "Generation Z: Technology and Social Interest". *The Journal of Individual Psychology*, 71(2). pp. 103-113.

Vásquez, J. and López, X. (2017). "Immersive Journalism Through Mobile Devi-

ces: How Virtual Reality Apps Are Changing News Consumption". In: Rocha, A. [et al.] (eds.). Recent Advances in Information Systems and Technologies. Varsovia: Springer, pp. 3-12.

Willingham, A. J. (2020, April 21). "El encierro ha hecho de Tik Tok una manera divertida de unirse en familia". CNN Spanish Edition. Available at: https://cnnespanol.cnn.com/2020/04/21/el-encierro-ha-hecho-de-tiktok-una-manera-divertida-para-unirse-en-familia/. Accessed 20 April 2020.

Witt, L.; Kperogi, F. A.; Writer S. G.; Bohrer, C., and Negash, S. (2016). "Journalism: How One University Used Virtual Worlds to Tell True Stories". Available at: https://isojjournal.wordpress.com/2016/04/14/journalism-how-one-university-used-virtual-worlds-to-tell-true-stories/. Accessed 18 April 2020.

Yang, S.; Zhao, Y., and Ma, Y. (2019). "Analysis of the Reasons and Development of Short Video Application – Taking Tik Tok As an Example". Presented at 2019 9th International Conference on Information and Social Science (ICISS 2019). Francis Academic Press, pp. 340-343.