

# Interactivity in the principal independent online media in Mexico (2023)\*

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Submission date: March 2024

Accepted date: June 2024

Published in: June 2024

**Recommended citation:** DÍAZ-CERVERÓ, E., BARREDO-IBÁÑEZ, D. and PINTO GARZÓN, K.T. (2024). "Interactivity in the principal independent online media in Mexico (2023)". *Anàlisi: Quaderns de Comunicació i Cultura*, 70, 59-77. DOI: <<https://doi.org/10.5565/rev/analisi.3711>>

## Abstract

Based on the hypothesis that independent Mexican digital media outlets are more connected to their audiences than traditional newspapers, the primary objective of this study is to examine the interactivity proposed and provided to users by these independent online media outlets. As secondary objectives, we seek to identify trends in the interface design of the selected media outlets. Lastly, this research aims to compare the levels of interaction present in the sample. To accomplish this, we analyzed 137 Mexican newspapers from the Sembramedia database (2023), applying an interactivity model according to the Rodríguez et al. (2012) model, with a previous adaptation done by the authors and validated through the Kuder-Richardson coefficient (KR20). The main findings reveal that, while there are high levels of interactivity in terms of information accessibility and media presence on Web 2.0 platforms, interactivity remains limited when it comes to user-generated content reproduction, information personalization, and utilization of

\* Dr. Daniel Barredo Ibáñez's participation was funded by project with reference number EMC21\_00240, funded by the General Secretariat of Research and Innovation, Junta de Andalucía (Spain), under the Emergia Program.

Web 2.0 tools. Consequently, this study concludes that the analyzed independent digital media outlets still hesitate to relinquish greater control to users. However, their business model continues to prioritize audience loyalty, increasingly relying on subscriptions and, to a lesser extent, government advertising. Furthermore, the findings suggest three crucial factors influencing the evolution of interactivity. Firstly, improving transparency in media-user communication and facilitating user content publication. Secondly, simplifying access and using intuitive tools may enhance user experience, although it could lead to a potential reduction in multimedia content. Lastly, restricting media connections with Web 2.0 platforms suggests centralizing web traffic within the outlet, departing from external platforms that monopolize advertising investment.

**Keywords:** interactivity; independent digital newspapers; digital journalism; Mexico; users; web 2.0

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**Resum.** *La interactivitat en els principals mitjans en línia independents de Mèxic (2023)*

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Partint de la hipòtesi que els mitjans digitals independents mexicans estan més connectats amb les seves audiències que els diaris tradicionals, l'objectiu principal d'aquest estudi és examinar la interactivitat proposada i proporcionada als usuaris per aquests mitjans de comunicació en línia independents. Com a objectius secundaris, busquem identificar tendències en el disseny d'interfície dels mitjans seleccionats, per la qual cosa aquesta recerca té com a objectiu comparar els nivells d'interacció presents en la mostra. Per fer-ho, analitzem 137 diaris mexicans de la base de dades de Sembramedia (2023) aplicant un model d'interactivitat basat en el de Rodríguez et al. (2012), amb una adaptació prèvia realitzada pels autors a través del coeficient de Kuder-Richardson (KR20). Les principals troballes revelen que, si bé hi ha alts nivells d'interactivitat en termes d'accessibilitat a la informació i presència de mitjans en plataformes web 2.0, la interactivitat continua sent limitada pel que fa als continguts generats pels usuaris, personalització de la informació i utilització d'eines web 2.0. En conseqüència, aquest estudi conclou que els mitjans digitals independents analitzats encara dubten a l'hora de cedir un major control als usuaris. No obstant això, el seu model de negoci continua prioritant la fidelitat de l'audiència i confia cada vegada més en les subscripcions i, en menor mesura, en la publicitat governamental. A més, els resultats suggereixen tres aspectes clau per a l'evolució de la interactivitat: transparència en el contacte entre mitjans i usuaris, facilitant la publicació de contingut; simplificació d'opcions d'accés i eines intuïtives per millorar l'experiència; i restricció en la vinculació amb plataformes socials de web 2.0, concentrant el trànsit web en el propi mitjà en lloc d'invertir en plataformes externes que acaparen la publicitat.

**Paraules clau:** interactivitat; diaris digitals independents; periodisme digital; Mèxic; usuaris; web 2.0

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**Resumen.** *La interactividad en los principales medios en línea independientes de México (2023)*

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Partiendo de la hipótesis de que los medios digitales independientes mexicanos están más conectados con sus audiencias que los periódicos tradicionales, el objetivo principal de este estudio es examinar la interactividad propuesta y proporcionada a los usuarios por estos medios de comunicación en línea independientes. Como objetivos secundarios, buscamos identificar tendencias en el diseño de interfaz de los medios seleccionados, por lo que esta investigación tiene como objetivo comparar los niveles de interacción presentes en la muestra. Para ello, analizamos 137 periódicos mexicanos de la base de datos de Sembramedia (2023) aplicando un modelo de interactividad basado en el de Rodríguez et al. (2012), con una adaptación previa realizada por los autores a través del coeficiente de Kuder-

Richardson (KR20). Los principales hallazgos revelan que, si bien hay altos niveles de interactividad en términos de accesibilidad a la información y presencia de medios en plataformas web 2.0, la interactividad sigue siendo limitada en lo que respecta a los contenidos generados por los usuarios, personalización de la información y utilización de herramientas web 2.0. En consecuencia, este estudio concluye que los medios digitales independientes analizados aún dudan a la hora de ceder un mayor control a los usuarios. Sin embargo, su modelo de negocio sigue priorizando la fidelidad de la audiencia y confía cada vez más en las suscripciones y, en menor medida, en la publicidad gubernamental. Además, los resultados sugieren tres aspectos clave para la evolución de la interactividad: transparencia en el contacto entre medios y usuarios, facilitando la publicación de contenido; simplificación de opciones de acceso y herramientas intuitivas para mejorar la experiencia; y restricción en la vinculación con plataformas sociales de web 2.0, concentrando el tráfico web en el propio medio en lugar de invertir en plataformas externas que acaparan la publicidad.

**Palabras clave:** interactividad; periódicos digitales independientes; periodismo digital; México; usuarios; web 2.0

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## 1. Introduction

In Mexico, since 2008, journalists have been banding together to work on their own as a response to job insecurity in journalistic companies. It was precisely that year, 2008, when the concept of entrepreneurial journalism was coined (Manfredi et al., 2015) to designate the set of initiatives led by journalists for the creation of new media that they themselves were promoting.

Although most of these ventures take advantage of the cybersphere, this is a country with intermediate levels of Internet connection: 8 out of 10 citizens have access to the Internet (INEGI, 2021). Despite the irregular implementation of the Internet, in Mexico all entrepreneurial media are digital natives and almost all of them are so-called niche media; that is, they offer content that differs from other media to occupy their space in a relevant domain (Albarello, 2020; Dimmick et al., 2011). In the field of journalistic ventures in Mexico, referents such as *Reporte Índigo* or *Animal Político* stand out. Since 2006, the first one has marked the true beginning of cyberjournalism in Mexico. As its creator, Ramón Alberto Garza, defines it, it is a brainmedia, a medium that calls for thinking differently, in a critical way (Islas and Arribas, 2008: 100). The latter is notable for its specialization in data journalism, and in the treatment of issues such as corruption, organized crime, inequality, discrimination, gender violence or crimes against freedom of expression, which have earned it a large number of followers and, consequently, allowed it to consolidate as an online medium.

This work is focused on examining an essential characteristic of narratives in cyberjournalism: interactivity, a differentiating attribute of digital media, which helps to integrate user participation (Codina, 2017), establishing a communicative reciprocity (Cabrera, 2010). In the specific case of Mexico, this factor has remained, together with others, an underdeveloped aspect over the past two decades (Albarrán, 2000; Meneses, 2010; Díaz-Cerveró and

Barredo-Ibáñez, 2017). Some publishers perceive interactivity as an unprofitable feature (Romero-Domínguez and Suárez-Romero, 2016), contrary to what is predicted by the literature, which highlights it as “a source of income” (Stockmann and Luo, 2017: 193). In the following pages the study seeks to examine the implementation of interactivity in independent online media in Mexico based on the Sembramedia catalogue in 2023, an approach that has not yet been addressed by previous literature.

## 2. Theoretical framework

### 2.1. *Towards a definition of interactivity in digital media*

Interactivity is one of the inherent characteristics of digital media, which brings as a novelty the establishment of new relationships with audiences (Cabrera et al., 2019). It has been configured as an essential attribute with the broad objective of establishing a differentiating role in the communicative ecosystem (Sixto et al., 2023; Gómez-García and de la Hera, 2023; Lopezosa et al., 2023). This is characterized by being highly competitive and critical due both to the overabundance of (dis)information to which users are exposed daily and to the growth of mistrust towards news outlets (Caled and Silva, 2022; Ferrara et al., 2020; Rodríguez et al., 2012).

Interactivity is associated with the management of technology and the uses of the Internet (Jenkins, 2008; Bruns, 2008) and provides different types of user selection and participation (Codina, 2017; Rost, 2006; Scolari, 2008). As Kioussis (2002) points out, it is associated with the context because it is a “media and psychological factor that varies through communication technologies, contexts and people’s perceptions” (p. 355).

Researchers agree that interactivity establishes a multidirectional communication process, because it makes possible the interaction of the user with support, with other users, and with informants (Barredo-Ibáñez, 2021; Arrojo, 2008; Martínez, 2005; Rost, 2006), thus allowing “reciprocal communication” (Cabrera, 2010: 169). In this framework, Rost (2006) described interactivity as the “gradual and variable capacity” provided by a means of communication to generate different degrees of participation by its audiences. Thus, he distinguishes two types of interactivity: communicative and selective (p. 12).

Communicative interactivity refers to the possible dialogue between the user and journalists and the user with other users, as well as the generation of content by them, such as from comments (Santana, 2014; Sal Paz, 2013). These contributions have provoked a challenge in terms of the moderation of news outlets, especially for those abusive or offensive comments that go against journalistic values and constructive dialogue (Juneström, 2019). Years ago, authors such as Montaña et al. (2013) had already alerted to this danger, due to the need to establish more effective forms of regulation. Despite the fact that comments are the fastest way for journalists to generate direct interaction with users, they constitute a mechanism that is rarely used by reporters

– in the framework of Latin American journalism – for reasons such as the lack of time and personnel to moderate them, the cost of storing them or the perceived aggressiveness towards them or their contributions (Barredo-Ibáñez et al., 2020; Hernández, 2016; Montaña et al., 2013).

However, thanks to this type of interactivity, users can express their opinions, engage in conversations with broadcasters and other users, and even create journalistic pieces for the outlet (Rodríguez et al., 2012). These dynamics require a greater effort and a more active involvement on the part of consumers, therefore, for Scolari (2008), it is the most active and critical users who take advantage of these spaces.

Communicative interactivity has been transforming the production routines of the media. Encouraging the co-creation of content is crucial for the digital ecosystem (Sixto et al., 2023), by helping to build audience loyalty (Pinto et al., 2018). Barredo-Ibáñez (2021) points out that interactivity, in fact, has been the main argument of social networks to monopolize advertising investment resources. In this sense, the media do not depend only on themselves to disseminate their content and achieve the desired positioning in the complex digital environment: prosumers play a leading role in dissemination (Caled and Silva, 2022), but the interrelationships between “algorithms, automation and news” also play a role (Sixto et al., 2023: 1324).

Despite the importance of involving users in the journalistic production process or encouraging their contributions, in digital media in countries such as Colombia, Ecuador, Peru or Mexico, journalists consider the contributions of users within the framework of opinion to be valuable, that is, to assess their informative content, but they consider that they lack the journalistic rigor to prepare them (Barredo-Ibáñez et al., 2020; Barredo-Ibáñez and Díaz-Cerveró, 2017). Accordingly, there is low communicative participation by consumers, which prevents further development of the prosumer in these contexts. Barredo-Ibáñez et al. (2018), after conducting a survey of 2,986 university students from Colombia, Peru, Chile, and Spain, found that users are informed basically passively, strongly privileging consumption to the detriment of production.

On the other hand, selective interactivity refers to all those possibilities that users have to interact with digital media, giving way to the so-called structural navigation of websites (Codina, 2017). This type of participation allows the user to define the pace and direction of the information they consume, and it is developed from basic levels such as the selection of content or the expansion of the same thanks to hypertext (the attribute that consolidates this type of interaction) (Rost, 2006), the personalization of the type of information to be consumed, such as based on a geographical preference (Rodríguez et al., 2012), or the immersive interaction in the most complex digital content that has various options for delving further (Lopezosa et al., 2023).

Added to these types of interactivity are those offered by augmented, virtual, and mixed reality. According to the results of the study conducted by Tejedor et al. (2020), augmented reality (AR) is a technology that enables

greater interactivity with information, through both immersion and augmentation, taking advantage of the elements of portability, ubiquity, geolocation, and connection offered by mobile devices such as smartphones, tablets, and phablets. However, some experts, especially application developers, emphasized the gradual digitization of other platforms such as smartwatches, podcast applications, vehicles, and even some household appliances (p. 6).

## *2.2. Adaptation, engagement, and new digital narratives*

Digital platforms have promoted a scenario in which traditional ways of doing journalism coexist with “immersive and structured journalism, gamified content and 360-degree videos, among many others” (Lopezosa et al., 2023: 823). Other of those successful digital experiences in Latin America have to do with slow journalism, which in Mexico has one of its greatest expressions in Gato-pardo, and which promotes the vision of quality over quantity, as an infallible method of credibility and trust, which are fundamental values in the exercise of communication (Romero-Rodríguez et al., 2022: 1580).

The news media seek to generate value to increase engagement, understood as the commitment or connection and the level of participation of their audiences (Ksiazek et al., 2016). Although there are other factors, such as credibility (Chung, 2008), or empathy (Vázquez and López, 2019), which help to generate commitment from users, interactivity is a “tool that drives commitment” (p. 265). For Riskos et al. (2019), the more interactive options journalistic content has, the more options there are for it to be commented on and shared by users. This is explained because interactivity improves the quality of information processing and encourages the persuasive effectiveness of the message (Oh and Sundar, 2015; Broekhuizen and Hoffmann, 2012).

The interactive process of users is intensified and extended thanks to the new formats for telling stories, such as the interactive documentary (Vázquez and López, 2019). Another example is newsgames, that are supports for the message that seek to capture attention to the information and enrich the main narrative, even for educational purposes about the message (Romero-Rodríguez and Torres Toukoumidis, 2018: 46). For some authors, they are often perceived as products to boost engagement rather than informative content (Gómez-García and de la Hera, 2023).

Although the resources to produce more complex journalistic content, such as those mentioned above, vary significantly, the truth is that this type of story requires a large budget and professionals with different skills (Lopezosa et al., 2023). For this reason, it is difficult to find this type of story in digital native media in countries such as Colombia, Ecuador and Mexico, where communication entrepreneurs start with major financing problems – whether their own, private or governmental – and have to diversify their income and limit their staff (Barredo-Ibáñez et al., 2022). In these contexts, it is more likely to find this type of narrative in migrant or already established native media.

### 2.3. *Online media in Mexico. Context*

In Mexico, 75.6% of the population has access to the Internet (INEGI, 2021), which means that 88.6 million users over six years of age connect to the network every day, although the gap between urban and rural environments is still large; in the latter, access barely reaches 56.5% of users. According to the same survey, the main activities of Mexican Internet users are communication (93.8%), obtaining information (89.9%) and accessing social networks (89.8%). It is striking that, just as the 2019 survey highlighted the main connectivity problems of Mexican users – these were identified by them as slow information transfer (50.1%), service interruptions (38.6%) and excessive unwanted information (25.5%) (INEGI, 2019) –, in the 2021 edition no reference is made to the existence of any problem in Internet access.

For about 30 years, Mexicans have been able to consume online media, since it was in 1995 when the main paper newspapers appeared in online versions: *La Jornada* and *El Norte* did so in 1995, while *Reforma* and *El Universal* created their online version in 1996 (Torres, 2018: 10).

Prior to the arrival of the internet, technology had already begun to be incorporated into newspaper newsrooms, which can be considered the first stage of Mexican journalism (Menéndez and Toussaint, 1989) and even the beginning of digital journalism (Salaverría, 2019). The second stage would be the one that corresponded to the arrival of web 1.0, in which most newspapers began to show online what they published on paper. According to Crovi (quoted in Torres, 2018), we are in the third stage of Mexican cyberjournalism, in which online media incorporate the advantages of digital convergence.

But still Mexican cyberjournalism has not implemented interactivity in depth (Albarrán, 2000; Barrios, 2013; Crovi, 2016; Díaz-Cerveró and Barredo-Ibáñez, 2017). The case of the newspaper *La Jornada* is paradigmatic; though a pioneer and after having gone through an important process of updating its digital infrastructure, the renewal of its online version did not prioritize interaction with its readers, but rather the expansion of its front page (Crovi, 2016: 248).

#### 2.3.1. *Independent Mexican digital media*

The media in Mexico, although they have several sources of information, have tended to rely on the Government as their main source and, therefore, sometimes broadcast government propaganda disguised as news (Gutiérrez Ortega et al., 2022: 143). In the words of Salazar (2020: 121-122), there is a “client relationship”. This is so even when online media have various sources of income: content for brands, commercial services, photography for events, conferences, electronic commerce, editorial services, teaching courses and donations, to name a few (Barredo-Ibáñez et al., 2022).

Curiously, while revenue from print advertising in media decreased by more than 30%, from 55 million dollars in 2015 to 31 million in 2021, digital advertising increased by 34%, from nine to 12 million in those six years

(Schulte, 2021). In the same period, while more and more media outlets in the world adopted some reader income scheme (paywall, membership, subscription), in Mexico 79% of digital media – and 78% of regional ones – are working on a payment or subscription model, and the rest do so or plan to do so in a period of less than three years (p. 13). All in all, the model of having an income via subscription in Mexico is far behind (Martín del Campo, 2021). Daniel Moreno, director of Animal Político, expresses himself in the same terms, alluding to the instability of the economy and the still low level of banking in the country as the main causes of the failure of subscriptions in Mexican online media (Moreno, 2019).

Thus, 47% of the digital media consulted by a report consider that between 10 and 30% of their income must come from a source other than advertising or readers (Schulte, 2021: 17). Likewise, the respondents acknowledge that the knowledge of the audiences is limited by the lack of knowledge of digital tools, the existence of small, specialized teams, and the difficulties to expand them, in number or specialization, due to budget issues (p. 31-41).

### 3. Material and methods

#### 3.1. Research design

The main objective of this study is to examine interactivity in the independent Mexican online media included in the Sembramedia database (2023). We chose the Sembramedia database because it is specifically focused on independent digital media, where any Spanish and Latin American media outlet can register with the main requirement that it not receive more than 30% of its sources of income in the form of advertising from any type of government or political institution (<<https://www.sembramedia.org/>>).

As secondary objectives, we set out to identify trends in the design of the interfaces of the chosen media, as well as to contrast the levels of interaction present in this sample.

This work, of a non-experimental type, with a cross-sectional data extraction, and a descriptive design, is based on the content analysis of independent Mexican online media. The research design was carried out based on the indicators proposed by Rodríguez et al. (2012), reviewed by Díaz-Cerveró and Barredo-Ibáñez (2017) and updated by the research team in 2021. We also took in consideration the model proposed by Tejedor et al. (2022) that establishes four fields related to online interfaces: quality, usability, search for information and dissemination of content.

As a result of a profound revision process, we updated the matrix presented by Rodríguez et al. (2012: 82-84), as more than a decade had passed since it was conceived. The updated analysis matrix consists of a total of 9 parameters (compared to 8 in the original), and 47 indicators,<sup>1</sup> which were validated

1. The complete list of media included can be downloaded at the following link: <<https://doi.org/10.6084/m9.figshare.22586590.v1>>.



with the Kuder-Richardson coefficient (KR20), as it will be presented in the next section.

### 3.2. *Measurement*

The analysis matrix has been operationalized through a content analysis, with dichotomous measures (0=no; 1=yes). The indicators were marked with the affirmative answer after carrying out a random sampling of 5 contents per front page and online media. The information collected, in any case, focused on express aspects, that is, established either within the content or the front page of each medium studied.

The coding was carried out by six students from Universidad Panamericana – Guadalajara campus, in Mexico, previously trained for the task. To demonstrate the consistency of the coding carried out, we have used the Kuder-Richardson coefficient (KR20) given the dichotomous nature of the indicators that were part of the analysis. These values are all acceptable, by exceeding the threshold of (Betancourt and Caviedes, 2018):

- 0.70 for the 8 indicators of parameter 1: media-user interaction;
- 0.91 for the 6 indicators of parameter 2: publication of content created by users;
- 0.75 for the 3 indicators of parameter 3: user registration;
- 0.64 for the 7 indicators of parameter 4: access to information;
- 0.57 for the 4 indicators of parameter 5: personalization of information;
- 0.67 for the 3 indicators of parameter 6: the medium encourages updating;
- 0.51 for the 4 indicators of parameter 7: predominance in the digital media of content other than written;
- 0.56 for the 5 indicators of parameter 8: use of Web 2.0 tools;
- and 0.72 for the 7 indicators of parameter 9: web 2.0 platforms in which the media outlet is present.

### 3.3. *Sample*

As has been pointed out, the outlets have been selected from the Sembramedia database in 2023. Altogether, we studied the implementation of interactivity in 137 Mexican online media.<sup>2</sup>

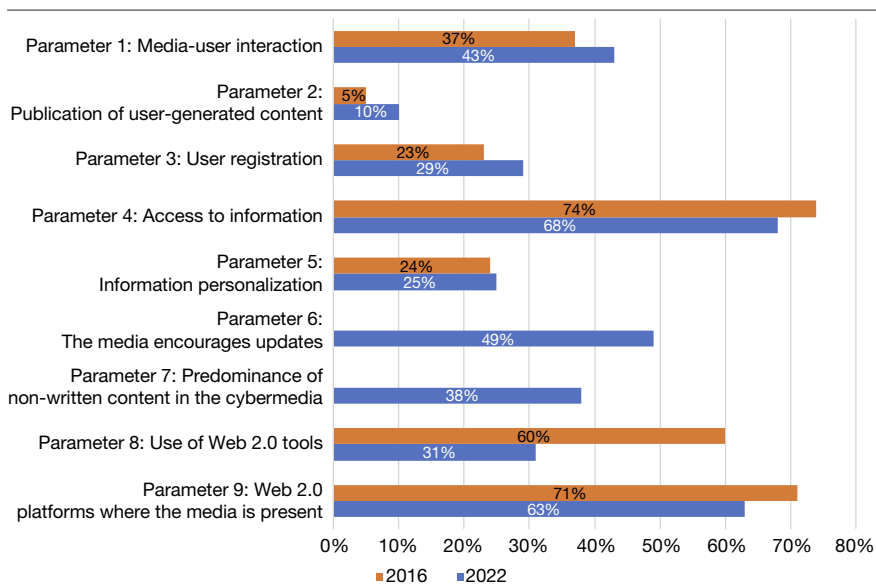
2. The complete list of media included can be downloaded at the following link: <<https://doi.org/10.6084/m9.figshare.22586590.v1>>.

## 4. Results

### 4.1. Main trends and differences of the media present in the chosen sample

The descriptive analysis of the 47 indicators examined, were grouped according to the 9 parameters<sup>3</sup>. In 2016, we studied the interactivity of the main Mexican headers (together with those of Colombia and Ecuador) (Barredo-Ibáñez and Díaz-Cerveró, 2017). In order to observe the possible evolution of interactivity in Mexican online newspapers, as well as to obtain a standard that allows us to contextualize the data collected in the analyzed sample, we have included in Figure 1 the description of the parameters, in comparison with the percentages obtained in 2016.

**Figure 1.** Parameters of interactivity in the analyzed sample, in comparison with that of the main online newspapers in Mexico (2022-2016)



Source: 2022 data: authors / 2016 data: Díaz-Cerveró and Barredo-Ibáñez (2017: 284); parameters 1-4 and 7-9: Rodríguez et al. (2012).

According to Figure 1, there has been a possible change of trend in the interactive design of digital media. Of the 7 parameters that allow the comparison, in 4 of them, the media analyzed in 2022 quantitatively exceed those examined in 2016, obtaining the main increases in parameter 2, which evaluates the publication of content created by users (10% in 2022 compared to 5% in 2016), or parameter 1, on the interaction options between the media

3. Due to the length of the table, it can be consulted at the following link: <<https://figshare.com/s/cc5d6b9e7b943f9f60c7>>.

and users (43% in 2022 compared to 37% of 2016). However, in 3 of the 7 parameters we find a greater volume of options implemented in 2016, compared to those of 2022, as is the case with parameter 8, on the use of Web 2.0 tools (60% in 2016 compared to 31% in 2022), or parameter 9, which focuses on the Web 2.0 platforms in which the medium is present (71% in 2016 compared to 63% by 2022). This comparison, however, must be taken with caution, since the media tested at one time and another are not the same. Those of 2016 were the best nationally oriented newspapers in the country (Díaz-Cerveró and Barredo-Ibáñez, 2017: 281), and therefore the media with the most resources in terms of options and professionals in charge of innovation.

Within the 10 most frequent indicators, we found a preference for indicators related to the organization of information (par. 4), the presence of the medium on platforms such as YouTube or Instagram, as well as its sharing on these or other platforms (par. 9), together with the evaluation of the content (par. 1), and the predominance of visual content (par. 7):

**Table 1.** Most frequent indicators of interaction in the digital media analyzed in Mexico (2022)

Indicator	F	%
4.1. Access to information through the front page	125	91%
8.1. The medium allows sharing information with other users on social networks	124	91%
4.2. Access to information through sections	122	89%
4.4. Access to information through the search bar	121	88%
9.1. Presence of the medium on audiovisual platforms or social networks	116	85%
9.2. Presence of the medium on platforms or social networks using images	116	85%
9.7. Link between the website of the media outlet and social platforms	117	85%
1.6. The medium allows polling or showing a reaction to the news published on its own platform	106	77%
4.3. Access to information through related news	99	72%
7.1. Predominance of photographic content on the front page	98	72%

Source: 2022 data: authors; parameters 1-4 and 7-9: Rodríguez et al. (2012).

At the other extreme, among the 10 less frequent indicators, we observe a full prominence of the spaces or possibilities linked to the publication of videos, photos, or other types of user content (par. 2), the lack of gamification options (par. 8), or the adaptation of the interface (par. 5), and a decreasing existence of blogs, whether from journalists (par. 8), or from users (par. 2).

**Table 2.** Less frequent indicators of interaction in the digital media analyzed in Mexico (2022)

Indicator	F	%
8.5. The medium has gamification options	5	4%
2.4. Publication of user-generated video	9	7%
2.6. Exclusive section for user-created content	10	7%
2.3. Publication of photos taken by users	11	8%
2.5. Publication of other types of user content	13	10%
8.4. Blogs of journalists linked to the medium	14	10%
5.2. Adaptation of the interface of the media outlet's website based on formats or resources of interest to the user	17	12%
7.3. Predominance of content on the cover based on podcasts or sound clips	16	12%
2.1. Creation of user blogs	18	13%
3.3. Contact with other registered users	18	13%

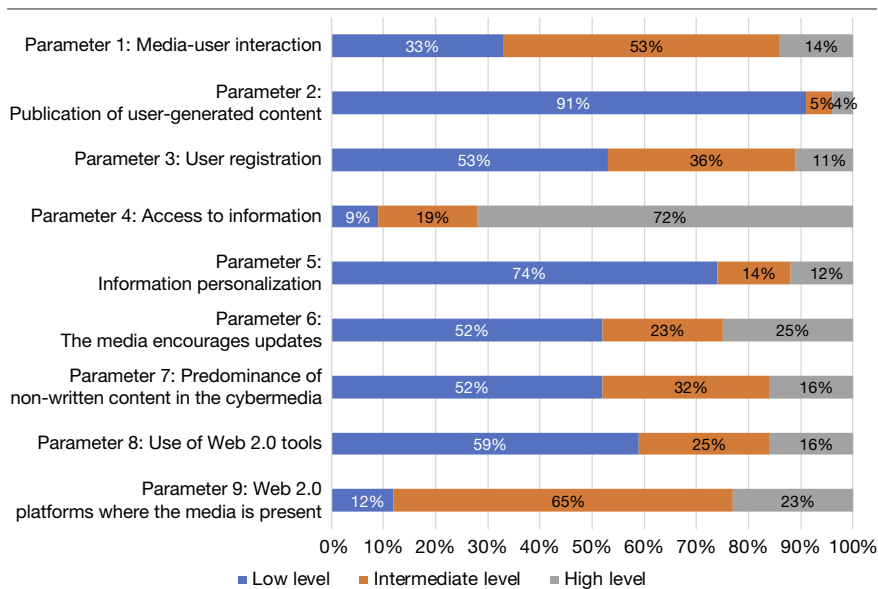
Source: 2022 data: authors; parameters 1-4 and 7-9: Rodríguez et al. (2012).

We also found few options related to the promotion of user communities around the medium, such as contact with other users (par. 3).

#### 4.2. Synthetic levels of interaction management

In order to test to what extent the reach of a medium can impact the implementation of interactivity, and to examine more closely the internal composition of the coded data, we elaborated synthetic indices with the 47 indicators, grouped according to the 9 parameters. The synthetic indices were drawn up by adding the scores of the indicators of each parameter. Later, the resulting variable was recoded from trichotomic ranges calculated, in turn, statistically.

As can be seen below, the highest levels of interactivity are concentrated around the indicators provided for in parameter 4, access to information, with a high or intermediate level reaching 81% of the proposed media. Next, the second parameter with the highest levels of interaction is based on 9, on the Web 2.0 platforms in which the communication medium is present, which registers a high or intermediate level of 88%.

**Figure 2.** Synthetic levels of interactivity in the Mexican digital media of the analyzed sample (2022)

Sources: authors / parameters 1-4 and 7-9: Rodríguez et al. (2012).

On the other hand, in 6 of the 9 parameters proposed, more than 50% of the scores fluctuated at low levels in the management of interactivity. In fact, we found the lowest levels in the dissemination of content proposed by users (par. 2, 91%), in the personalization of information (par. 5, 74%), and at a greater distance, in the use of Web 2.0 tools (par. 8, 59%).

## 5. Discussion and conclusions

Interactivity helps to expand relationships with users (Cabrera et al., 2019), to build audience loyalty (Barredo-Ibáñez et al., 2018), to favor greater differentiation from other headers (Lopezosa et al., 2023), and to generate additional sources of income (Stockmann and Luo, 2017). And this, precisely, is of great importance for independent online media, which need to stand out in a highly competitive market, such as the Mexican one.

Although it is difficult to make a direct comparison between the media studied in 2022 and those of 2016 – due to the differences in terms of reach, budget and users –, we observe a relative increase in the implementation of interactivity, and also some similarities between some media and others. The lowest levels continue to occur based on the production of user-generated content, together with the personalization of information, perhaps due to the high cost of innovation in these aspects (Sixto et al., 2023).

The novelty of this study is based in two main perceived contributions and three possible aspects related to the evolutive nature of interactivity (Tejedor et al., 2020; Romero-Rodríguez et al., 2022). On the other hand, in the media studied there is a restriction of personalization, of diversified entertainment in the adoption of games or videogames, under a more mass media approach – an analog approach –, to the detriment of the collaborative transversality of the message that is typical of the digital. A possible explanation for the above arises given the nature of the online media that is the object of this sample. They are all independent, digital natives and are made up of communication professionals who, coming from other media where practices that were not very interactive were taking place – trying to avoid them or because they were fired as a result of the 2008 economic crisis – created these media taking advantage of the then incipient digital convergence (Strange and Vega, 2022).

But, on the other hand, another aspect to consider lies in the evolution of interactivity itself within digital media. Some interactive options disappear depending on user trends, or the development of other technologies, as is the case with blogs.

The results presented suggest three possible key aspects that could influence the evolution of interactivity. Firstly, related to quality (Tejedor et al., 2022), transparency in the contact mechanisms between the media and users could be encouraged, together with a greater facility for users to publish their own content. Secondly, associated to usability (Tejedor et al., 2022), the reduction of access options and the use of more intuitive tools could improve the user experience, despite the possible reduction of multimedia content. Lastly, in the dissemination of content (Tejedor et al., 2022), the restriction on linking media with Web 2.0 social platforms suggests a concentration of web traffic in the outlet itself, instead of investing in those external platforms that monopolize advertising investment. We do not include as a key aspect the search of information (Tejedor et al., 2022), which is one of the most abundant indicators on the studied media.

In short, the panorama of independent Mexican online journalistic media shows a group of niche media with barely stable business models and with the intention of targeting numerous sources of income to achieve survival without having to succumb to the advertising agreements of any part of the Mexican government. They do so by acknowledging their scant knowledge of the audience, although they intend to live from it through subscription models, supplemented by some type of advertising and other different sources of income, although they still do not know what they are. If we take into account that this lack of knowledge of its users is based, in turn, on the lack of knowledge of the tools to reach them, it is understandable that interactivity in these online media has not been further developed, although this defining component of digital may be key, as the academy posits, to audience loyalty and, therefore, to greater financial stability that, in the end, will consolidate their editorial independence.

This work, despite the interest, presents some limitations. In that sense, the first one is related to the quantitative nature of these pages. In future works it would be interesting to add other layers or actors associated with the interactivity to get a deeper understanding of this phenomenon. For instance, the users are an essential actor that can determine the online design. Other limitation is linked to the predictive strength of the previous results. As we have shown some descriptive statistics, in a future work it could be important to understand until what point the results can be inferred and, therefore, extended to major samples with a model of structural equations.

### Bibliographical references

- ALBARELLO, F. (2020). "De la hegemonía al nicho: desplazamiento de medios tradicionales en rutinas informativas de un grupo de universitarios argentinos". *Dixit*, 32, 46-60.  
<<https://doi.org/10.22235/d.vi32.1946>>
- ALBARRÁN, G. (2000). "De espaldas al público. Prensa e Internet: opciones de interactividad en 14 medios de la Ciudad de México". In: ISLAS, O. and GUTIÉRREZ, F. (eds.). *Internet, el medio inteligente*. Mexico: CECOSA, p. 73-89.
- ARROJO, M. J. (2008). *La Configuración de la Televisión Interactiva: de Las Plataformas Digitales a la TDT*. Madrid: Netbiblo.
- BARREDO-IBÁÑEZ, D. (2021). *Medios digitales, participación y opinión pública*. Barcelona: Tirant Lo Blanch.
- BARREDO-IBÁÑEZ, D. and DÍAZ-CERVERÓ (2017). "La interactividad en el periodismo digital latinoamericano. Un análisis de los principales cibermedios de Colombia, México y Ecuador (2016)". *Revista Latina de Comunicación Social*, 72, 273-294.  
<<https://doi.org/10.4185/RLCS-2017-1165>>
- BARREDO-IBÁÑEZ, D., DE LA GARZA MONTEMAYOR, D. J., FREUNDT-THURNE, Ú., PINTO-GARZÓN, K.T. and DÍAS, D.L. (2018). "Cuestionando la existencia del prosumer en Iberoamérica. Un estudio sobre los universitarios de Colombia, Perú, Chile y España". *Revista Letral*, 20, 183-205.  
<<https://doi.org/10.30827/RL.v1i20.7815>>
- BARREDO-IBÁÑEZ, D., PINTO-GARZÓN, K.T., FREUNDT-THURNE, Ú. and MEDRANDA-MORALES, N.J. (2020). "Interaction and user-generated content on online informative platforms: A comparison of journalists in Colombia, Peru and Ecuador". *Catalan Journal of Communication & Cultural Studies*, 12 (1), 99-117.  
<[https://doi.org/10.1386/cjcs\\_00016\\_1](https://doi.org/10.1386/cjcs_00016_1)>
- BARREDO-IBÁÑEZ, D., PINTO-GARZÓN, K.T. and DÍAZ-CERVERÓ, E. (2022). "Aspectos generales del emprendimiento en Colombia, Ecuador y México. Una entrevista en profundidad con emprendedores de la comunicación". In: SÁNCHEZ, H.M. (Ed.). *La digitalización en el periodismo. Transformación, retos y oportunidades*. Barcelona: Gedisa, 62-81.
- BARRIOS PUGA, A. (2013). *El ciberperiodismo en México: realidades, desafíos y oportunidades*. Doctoral Thesis. Facultad de Ciencias de la Comunicación, Universidad de Santiago de Compostela. [Accessed 14 March 2024]. Retrieved from <[https://minerva.usc.es/xmlui/bitstream/handle/10347/9558/rep\\_540.pdf?sequence=1&isAllowed=y](https://minerva.usc.es/xmlui/bitstream/handle/10347/9558/rep_540.pdf?sequence=1&isAllowed=y)>

- BETANCOURT, A. C. and CAVIEDES, I. L. (2018). "Metodología de correlación estadística de un sistema integrado de gestión de la calidad en el sector salud". *Signos*, 10 (2), 119-139.  
<<https://doi.org/10.15332/s2145-1389.2018.0002.07>>
- BROEKHUIZEN, T. and HOFFMANN, A. (2012). "Interactivity perceptions and online newspaper preference". *Journal of Interactive Advertising*, 12 (2), 29-43. Retrieved from <<https://bit.ly/3CIB7lb>>
- BRUNS, A. (2008). "The active audience: transforming journalism from gatekeeping to gatewatching". In: PETERSON, C. and DOMINGO, D. (eds.). *Making online news: the ethnography of new media production*. New York: Peter Lang, 171-184.
- CABRERA, M. A. (2010). "La interactividad de las audiencias en entornos de convergencia digital". *Revista ICONO 14. Revista científica de Comunicación y Tecnologías emergentes*, 8 (1), 164-177.  
<<https://doi.org/10.7195/ri14.v8i1.287>>
- CABRERA-MÉNDEZ, M., CODINA, LI. and SALAVERRÍA, R. (2019). "What is new media? The views of 70 Hispanic experts". *Revista Latina de Comunicación Social*, 74, 1506-1520.  
<<https://doi.org/10.4185/rllcs-2019-1396en>>
- CALED, D. and SILVA, M. J. (2022). "Digital media and misinformation: An outlook on multidisciplinary strategies against manipulation". *Journal of Computational Social Science*, 5 (1), 123-159.  
<<https://doi.org/10.1007/s42001-021-00118-8>>
- CHUNG, D. S. (2008). "Interactive Features of Online Newspapers: Identifying Patterns and Predicting Use of Engaged Readers". *Journal of Computer-Mediated Communication*, 13 (3), 658-679.  
<<https://doi.org/10.1111/j.1083-6101.2008.00414.x>>
- CODINA, LI. (2017). *Componentes estructurales y semánticos en el diseño de la navegación Web: taxonomías, SEO y software implicado en el caso de una instalación con WordPress*. Barcelona: Universitat Pompeu Fabra.
- CROVI, D. (2016). "México". In: SALAVERRÍA, R. (coord.). *Ciberperiodismo en Iberoamérica*. Madrid: Fundación Telefónica and Editorial Ariel, 241-253.
- DÍAZ-CERVERÓ, E. and BARREDO-IBÁÑEZ, D. (2017). "Las posibilidades de participación de los usuarios en los principales cibermedios nacionales mexicanos". *Cuadernos.info*, 40, 53-69.  
<<http://dx.doi.org/10.7764/cdi.40.1094>>
- DIMMICK, J., FEASTER, J. C. and HOPLAMAZIAN, G. (2011). "News in the interstices: The niches of mobile media in space and time". *New Media & Society*, 13 (1), 23-39.  
<<https://doi.org/10.1177/1461444810363452>>
- FERRARA, E., CRESCI, S. and LUCERI, L. (2020). "Misinformation, manipulation, and abuse on social media in the era of COVID-19". *Journal of Computational Social Science*, 3 (2), 271-277.  
<<https://doi.org/10.1007/s42001-020-00094-5>>
- GÓMEZ-GARCÍA, S. and DE LA HERA CONDE-PUMPIDO, T. (2023). "Newsgames: The Use of Digital Games by Mass-Media Outlets to Convey Journalistic Messages". *Games and Culture*, 18 (4), 449-474.  
<<https://doi.org/10.1177/15554120221105461>>
- GUTIÉRREZ ORTEGA, F., ECHEVERRÍA, M. and GONZÁLEZ, R. A. (2022). "Clientelismo indirecto y la supervivencia del periodismo autoritario inercial: Cobertura



- de las elecciones presidenciales". *Global Media Journal México*, 19 (36), 129-147.  
<<https://doi.org/10.29105/gmjmx19.36-472>>
- HERNÁNDEZ, J. C. (2016). "Interactividad y socialización periodística en Twitter. Un análisis de los medios migrantes colombianos de mayor influencia online". *Estudios sobre el Mensaje Periodístico*, 22 (2), 1065-1083.  
<<https://doi.org/10.5209/esmp.54252>>
- INEGI (2019). *Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares (ENDUTIH) 2019*. Online [Accessed 14 March 2024]. Retrieved from <<https://www.inegi.org.mx/programas/dutih/2019/>>
- (2021). *Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares (ENDUTIH) 2021*. Online [Accessed 14 March 2024]. Retrieved from <<https://www.inegi.org.mx/programas/dutih/2021/>>
- ISLAS, O. and ARRIBAS, A. (2008). "1976-2006: Del periodismo de investigación al ciberperiodismo crítico en México. Del semanario Proceso a Reporte Índigo". *Revista Contratexto*, 16, 83-104.  
<<https://doi.org/10.26439/contratexto2008.n016.785>>
- JENKINS, H. (2008). *Convergence culture. La cultura de la convergencia de los medios de comunicación*. Barcelona: Paidós.
- JUNESTRÖM, A. (2019). "Emerging practices for managing user misconduct in online news media comments sections". *Journal of Documentation*, 75 (4), 694-708.  
<<https://doi.org/10.1108/jd-09-2018-0143>>
- KIOUSIS, S. (2002). "Interactivity: a concept explication". *New Media & Society*, 4 (3), 355-383.  
<<https://doi.org/10.1177/146144480200400303>>
- KSIAZEK, T., PEER, L. and LESSARD, K. (2016). "User engagement with online news: Conceptualizing interactivity and exploring the relationship between online news videos and user comments". *New Media & Society*, 18 (3), 502-520.  
<<https://doi.org/10.1177/1461444814545073>>
- LOPEZOSA, C., CODINA, LL., FERNÁNDEZ-PLANELLAS, A. and FREIXA, P. (2023). "Journalistic innovation: How new formats of digital journalism are perceived in the academic literature". *Journalism*, 24 (4), 821-838.  
<<https://doi.org/10.1177/14648849211033434>>
- MANFREDI, J. L., ROJAS-TORRIJOS, J. L. and HERRANZ DE LA CASA, J. M. (2015). "Innovación en el periodismo emprendedor deportivo. Modelo de negocio y narrativas". *Profesional de la información*, 24 (3), 265-273.  
<<https://doi.org/10.3145/epi.2015.may.06>>
- MARTÍN DEL CAMPO, A. (2021). *¿El despertar de un gigante adormecido? Los cambios que se avecinan en el ecosistema de medios locales y regionales en México* (informe). Tecnológico de Monterrey.
- MARTÍNEZ, L. (2005). "La participación de los usuarios en los contenidos periodísticos de la Red". In: LÓPEZ-GARCÍA, G. (coord.). *El ecosistema digital: Modelos de comunicación, nuevos medios y público en Internet*. Valencia: Universitat de València, 269-332.
- MENÉNDEZ, A. M. and TOUSSAINT, F. (1989). *Prensa y nueva tecnología*. Mexico: Trillas.
- MENESES, M. E. (2010). "La industria del periodismo y su transición a la convergencia digital: ciberperiódicos y periodistas convergentes en México". *Revista Virtualis*, 2, 44-58.  
<<https://doi.org/10.2123/virtualis.v1i2.28>>

- MONTAÑA, S., GONZÁLEZ, V. E. and ARIZA, C. (2013). “Ciberodio en los comentarios de la noticias en línea en Colombia. El caso de Piedad Córdoba”. *Palabra Clave*, 16 (3), 812-841. Recuperado de <<https://palabraclave.unisabana.edu.co/index.php/palabraclave/article/view/3367/3318>>
- MORENO, D. (18 March 2019). *Animal político: Daniel Moreno. Censura, monetización y los efectos de la polarización*. Online [Accessed 14 March 2024]. Retrieved from <<https://open.spotify.com/episode/7JdDheA4AfZqmdlenSxZTY?si=zDao3FzVTbm6um4tjhxD-A&nd=1>>
- OH, J. and SUNDAR, S. (2015). “How Does Interactivity Persuade? An Experimental Test of Interactivity on Cognitive Absorption, Elaboration, and Attitudes”. *Journal of Communication*, 65 (2), 213-236. <<https://doi.org/10.1111/jcom.12147>>
- PINTO-GARZÓN, K.T., BARREDO-IBÁÑEZ, D., ARCILA, C. and SUING, A. (2018). “La interactividad como un factor clave para la fidelización de las audiencias. Una aproximación al contexto colombiano”. In: ARCILA CALDERÓN, C. *Comunicación digital, redes y procesos en América Latina*. Salamanca: Comunicación Social Ediciones y Publicaciones, 39-50.
- RISKOS, K., DEKOULOU, P. and TSOURVAKAS, G. (2019). “User interactivity in online newspapers: Exploring the relationship between content features and user response”. *Newspaper Research Journal*, 40 (2), 155-176. <<https://doi.org/10.1177/10739532918814465>>
- RODRÍGUEZ, R., CODINA, Ll. and PEDRAZA, R. (2012). “Indicadores para la evaluación de la calidad en cibermedios: análisis de la interacción y de la adopción de la Web 2.0”. *Revista Española de Documentación Científica*, 35 (1), 61-93. <<https://doi.org/10.3989/redc.2012.1.858>>
- ROMERO-DOMÍNGUEZ, L. and SUÁREZ-ROMERO, M. L. (2016). “Audiencias interactivas: rentabilidad y ética en el punto de mira”. In: SUÁREZ VILLEGAS, J.C. and CRUZ ÁLVAREZ, J. (Eds.). *Desafíos éticos en el periodismo digital*. Madrid: Dykinson, 93-115.
- ROMERO-RODRÍGUEZ, L., TEJEDOR-CALVO, S. and CASTILLO-ABDUL, B. (2022). “From the immediacy of the cybermedia to the need for slow journalism: Experiences from Ibero-America”. *Journalism Practice*, 16 (8), 1578-1596.
- ROMERO-RODRÍGUEZ, L. and TORRES-TOUKOUMIDIS, Á. (2018). “Con la información sí se juega: Los newsgames como narrativas inmersivas transmedias”. In: L. M. ROMERO-RODRÍGUEZ, A. TORRES-TOUKOUMIDIS (Eds.). *Gamification in Iberoamerica: Experiences from communication and education*. Quito: Abya Yala, 36-52.
- ROST, A. (2006). *La interactividad en el periódico digital*. Doctoral Thesis. Universitat Autònoma de Barcelona. [Accessed 14 March 2024]. Retrieved from <<https://ddd.uab.cat/pub/tesis/2006/tdx-1123106-104448/ar1de1.pdf>>
- SAL PAZ, J. C. (2013). “El comentario digital como género discursivo periodístico. Análisis de La Gaceta de Tucumán”. *Aposta. Revista de Ciencias Sociales*, 69, 158-216. Retrieved from <<http://www.apostadigital.com/revistav3/hemeroteca/salpez1.pdf>>
- SALAVERRÍA, R. (2019). “Digital journalism: 25 years of research. Review article”. *Profesional de la información*, 28 (1). <<https://doi.org/10.3145/epi.2019.ene.01>>
- SALAZAR, R. (2020). “¿Cooptar o reprimir? Intervenciones autoritarias sobre la prensa local mexicana”. *América Latina Hoy*, 84, 117-136. <<https://doi.org/10.14201/alh.20916>>

- SANTANA, A. D. (2014). "Virtuous or Vitriolic: The effect of anonymity on civility in online newspaper reader comment boards". *Journalism Practice*, 8 (1), 18-33.  
<<https://doi.org/10.1080/17512786.2013.813194>>
- SCHULTE, A. (2011). *¿El despertar de un gigante adormecido? Los cambios profundos que se avecinan en el ecosistema de medios locales y regionales en México*. Monterrey: WAN-IFRA.
- SCOLARI, C. (2008). "Hipermediaciones. Elementos para una Teoría de la Comunicación Digital Interactiva". *Mediaciones Sociales*, 8, 167-170.
- SIXTO-GARCÍA, J., SILVA-RODRÍGUEZ, A., RODRÍGUEZ-VÁZQUEZ, A. and LÓPEZ-GARCÍA, X. (2023). "Redefining journalism narratives, distribution strategies, and user involvement based on innovation in digital native media". *Journalism*, 24 (6), 1322-1341.  
<<https://doi.org/10.1177/14648849211062766>>
- STOCKMANN, D. and LUO, T. (2017). "Which Social Media Facilitate Online Public Opinion in China?". *Problems of Post-Communism*, 64 (3-4), 189-202.  
<<https://doi.org/10.1080/10758216.2017.1289818>>
- STRANGE, I. L. and VEGA ASTORGA, M. J. (2022). "Periodismo emprendedor, un acercamiento a las estructuras organizacionales, el perfil profesional polivalente e interdisciplinario y la innovación periodística de medios digitales del sur de Sinaloa". *Sintaxis*, 9, 85-111.  
<<https://doi.org/10.36105/stx.2022n9.07>>
- TEJEDOR-CALVO, S., ROMERO-RODRÍGUEZ, L. M., MONCADA-MONCADA, A. J. and ALENCAR-DORNELLES, M. (2020). "Journalism that tells the future: possibilities and journalistic scenarios for augmented reality". *Profesional de la información*, 29 (6), e290602.  
<<https://doi.org/10.3145/epi.2020.nov.02>>
- TEJEDOR-CALVO, S., ROMERO-RODRÍGUEZ, L. M. and CODINA, L. (2022). "Integrated research model for web interfaces: toward a taxonomy of quantitative and qualitative analysis for digital native media". *Profesional de la Información*, 31 (6), e310619.  
<<https://doi.org/10.3145/epi.2022.nov.19>>
- TORRES, A. (2018). "Los retos de la enseñanza universitaria del periodismo digital emprendedor en México". *Global Media Journal México*, 15 (29). Retrieved from  
<<https://rio.tamui.edu/gmj/vol15/iss29/2>>
- VÁZQUEZ-HERRERO, J. and LÓPEZ-GARCÍA, X. (2019). When media allow the user to interact, play and share: recent perspectives on interactive documentary. *New Review of Hypermedia and Multimedia*, 25 (4), 245-267.  
<<https://doi.org/10.1080/13614568.2019.1670270>>

