Comunicación y Sociedad Departamento de Estudios de la Comunicación Social

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Post-truth and fake news in scientific communication in Ibero-American journals

Posverdad y fake news en revistas científicas de comunicación de Iberoamérica

Pós-verdade é fake news nos revistas de comunicação científica Ibero-Americanas

DOI: https://doi.org/10.32870/cys.v2023.8442

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The article presents a content analysis with a bibliometric approach of post-truth and fake news to determine their thematic presence in scientific communication journals in Ibero-America. The theoretical, methodological and conceptual contributions of post-truth and fake news are analyzed with a sample of N=46 articles published in 17 journals specialized in communication (WoS, ESCI and Scopus) between 2000 and 2019. The country with the highest publication on post-truth and fake news is Spain, the prevailing research approach is quantitative, establishing semantic associations with the media, technological and informational ecosystem and disinformation.

KEYWORDS: Post-truth, communication, Iberoamerica, fake news, scientific journals.

El artículo presenta un análisis de contenido con enfoque bibliométrico de la posverdad y las noticias falsas para determinar su presencia temática en las revistas científicas de comunicación de Iberoamérica. Se analizan los aportes teóricos, metodológicos y conceptuales de la posverdad y las noticias falsas con una muestra de 46 artículos publicados en 17 revistas, especializadas en comunicación (WoS, ESCI y Scopus) entre 2000 y 2019. El país con mayor publicación sobre posverdad y noticias falsas es España, el enfoque de investigación predominante es cuantitativo, estableciendo asociaciones semánticas con el ecosistema mediático, tecnológico e informacional y la desinformación.

PALABRAS CLAVE: Posverdad, comunicación, Iberoamérica, noticias falsas, revistas científicas.

O artigo apresenta uma análise de conteúdo com abordagem bibliométrica de pós-verdade e notícias falsas para determinar sua presença temática em revistas de comunicação científica na América Latina. As contribuições teóricas, metodológicas e conceituais da pós-verdade e das notícias falsas são analisadas com uma amostra de N = 46 artigos publicados em 17 periódicos especializados em comunicação (WoS, ESCI e Scopus) entre 2000 e 2019. O país com maior publicação sobre pós-verdade e notícias falsas é a Espanha, a abordagem de pesquisa predominante é quantitativa, estabelecendo associações semânticas com a mídia, o ecossistema tecnológico e informacional e a desinformação. PALAVRAS-CHAVE: Pós-verdade, comunicação, Iberoamérica, fake news, revistas científicas.

How to cite:

Arias, D., González Pardo, R. E., Cortés Peña, O. (2023). Post-truth and fake news in scientific communication in Ibero-American journals. *Comunicación y Sociedad*, e8442. https://doi.org/10.32870/cys.v2023.8442

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INTRODUCTION

Since the declaration of words of the year, in 2016 and 2017, of the terms "post-truth" and "fake news" (Oxford English Dictionary and Collins Dictionary, respectively), the political and everyday use attributed to these words meant for some researchers the opportunity to confront whether their progressive popularity could translate into an increase in scientific research on both topics (Parra-Valero & Oliveira, 2018).

From this approach, the research by Parra-Valero and Oliveira (2018) performs a systematic review of a set of scientific articles retrieved from the Scopus database (n = 91) and available in full text, where an increase in the visibility of research on post-truth and fake news is reported, evidencing the exponential growth in the production of publications related to both terms since 2016. The approach to the subject is carried out in various scientific disciplines of knowledge, with more incidence in communication studies. In particular, this area addresses the concepts to propose alternative solutions and mitigation to the problem of fake news. Other studies suggest the problematic and negative character of fake news because of what they seem to symbolize in the scenario of public deliberation and citizen participation. From studies such as that of Capilla (2019), the idea emerges that "post-truth attempts to encompass a good part of the changes wrought by digitalized political communication, and especially by the use of (digital) social networks as an instrument of political communication" (p. 9).

This type of conceptual approaches argue post-truth as the process that encompasses or contains in itself other problems, phenomena and processes, granting the term a sense of generic epistemological nature, which owes its existence as a "new denomination" to a sociocultural reality that currently cannot conceive itself without the instrumental vision of Information and Communication Technologies (TICS) (Caridad- Sebastián et al., 2018).

As Clavero (2018) explains, referring to Waisbord's reflection (2018), "this is a phenomenon symptomatic of concerns about the status and status of truth in contemporary societies, in the context of new forms of propaganda and deception that are facilitated by the digital revolution" (p. 169).

Indeed, McIntyre (2018) defines post-truth as a kind of ideological supremacy "through which its practitioners attempt to compel someone to believe something, whether there is evidence in favor of that belief or not" (p. 42). Through this stance, post-truth is interpreted as a deliberate distortion of reality. However, it is a distortion with multiple expressive vehicles and concrete instruments of our time, whose conceptual essence "is located beyond the mere intentional manipulation of an object (of the communicative channel and content) insofar as it sinks its anchors in the irrational convictions of the subjects or recipients of the 'social corpus'" (Moles Plaza, 2017, p. 118).

For their part, fake news, having a more specific aspect, come to constitute one of the various expressions of this post-truth paradigm (D 'Ancona, 2017; Harsin & Harsin, 2018). Fake news "are false information designed to pass themselves off as news with the aim of spreading a deception or deliberate disinformation, in order to obtain an end" (Amorós, 2018, p. 36). Its effectiveness is much more perceptible, due to the realism of its appearance, so it is reproduced by the users of digital networks and information channels themselves at an unprecedented scale and speed. It is easier to assign responsibility for its potential effects, since its form is tangible, although its creation and propagation may be due to different motivations.

A demonstrative example of the disturbing reasons behind the indiscriminate use of fake news is provided by Aparici and Marín (2019) recalling the large concentration of Internet pages with "fake" content, in support of Donald Trump and against Hillary Clinton, that reached American voters from Veles (Macedonia) during the 2016 election period:

Although their impact in the most powerful country in the world proved decisive, the young Macedonians' goal was not to help Trump defeat Clinton, but to make money by selling advertising space on their pages, taking advantage of the high traffic they registered. Who cares about the truth when it comes to getting rich? Welcome to the post-truth era (p. 25).

These types of observations bring to the table the complementary relationship of post-truth and fake news. Although post-truth is usually recognized in a broad and historical sense, while fake news is assigned specific traits, "almost subsidiary to post- truth" (Carrera, 2018, p. 1472), both notions feed and reinforce each other (Blanco-Herrero & Arcila-Calderón, 2019).

However, there are critical views such as that of Habgood-Coote (2018), who argues that the use of the terms post-truth and fakenews has three major problems: first, they do not have stable public meanings, which implies that they are meaningless and context-sensitive; second, they are unnecessary, because there is a rich vocabulary for thinking about epistemic dysfunction; third, they have propagandistic uses, which means that the use of these terms legitimizes anti-democratic advertising.

Even so, among the perspectives that do validate the use of the term post-truth, an argument emerges: the irrelevance that (as an important feature of the current scenario), acquires the truth for the average citizen, "in a kind of overcoming or voluntary cancellation of it" (Rodríguez-Ferrándiz, 2019, p. 2). This stance towards truth and facts would be in the background facilitating the popular endorsement of fake news (Keyes, 2004; Harsin, 2015). From this point of view, what is manifested today through the idea of post-truth, is not the simple disinterest or laziness to know the veracity of events (Espinosa Zarate, 2019); it would also be a loss of confidence in those who were the main institutional narrators: journalists and media, owners of the informative monopoly and collective truth in another time (D 'Ancona, 2017). This added to an intricate technological scenario, has become problematic and would be among the reasons why both notions acquire a special existence (Rodrigo-Alsina & Cerqueira, 2019).

Precisely in this era, the refinement of TICS exposes media audiences to all kinds of information, in the words of Aguaded (2014): "We are undoubtedly witnessing a compulsive hyperconnection and global overinformation..." (p. 7). Much of this excessive information, although produced more in line with people's tastes, convictions, beliefs and political ideologies (Pariser, 2017), is not necessarily based on criteria of objectivity, thoroughness, rationality, balance or truthfulness.

Recent literature is attending to a challenging scenario in which false truths have sought to impose themselves (Tandoc et al., 2018;

Zhang & Ghorbani, 2020). This paper, in particular, does not focus on delving conceptually into other connected phenomena such as could be disinformation (Fallis, 2016) or informational disorders (Del-Fresno-García, 2019), but recognizes the need for a reflection aimed at attending to the critical threat of informational quality (Fallis, 2015).

This is reflected in cases of public significance: the ascension of Donald Trump to the US presidency in 2016 and the Brexit, or exit of the United Kingdom from the European Union (Allcott & Gentzkow 2017; Rodríguez-Andrés, 2018; Yeste & Franch, 2018). In fact, the global crisis over the COVID-19, has been approached from the perspective of the informative treatment, leaving in evidence the concern about the disinformation and the viralization of fake news about the pandemic and the disease generated by the new coronavirus (Guan et al., 2021; Mauri-Ríos et al., 2021; Mora-Rodríguez & Melero-López, 2021).

In this sense, this paper proposes a systematic analysis of the terms post-truth and fake news, combining content analysis (CA) and bibliometric analysis (BA) to examine bibliometric and analytical characteristics of scientific articles from Ibero-American communication journals that address these two notions, both in their central descriptors or keywords, as well as in the display of their content.

The body of articles (n = 46) was selected after exploring an observation window of 19 years (2000 to 2019) within the framework of a study population delimited by the set of 17 journals from Latin America (13) and Spain (4), specialized in communication with high impact indexes (indexed in Web of Science (WoS), Emerging Sources Citation Index (ESCI) and Scopus).

State of the art and research questions

A content analysis, with a bibliometric approach, recognizes the importance of measuring and assessing the thematic presence or absence within an area of knowledge. According to Arbeláez-Gómez and Onrubia-Goñi (2014), this approach is applied "always with the claim to account for the production in a field of knowledge, its evolutions or transformations" (p. 16).

Outstanding precedents have focused on identifying the main research topics, their relationship and the components that comprise them. López-Robles et al. (2019) examine the evolution of the indexed communication journal EPI (*El Profesional de la Información*) between the years 2006 to 2017, with which, on this publication there is already a map of its conceptual evolution, revealing, among other findings, its thematic specialization, which have been the most productive universities or organizations in Spain present in the journal, as well as the contributions received from the international context.

Similarly, Walter et al. (2018) present the state of research and evolution of communication theories in the prestigious *Journal of Communication* over a period of seven decades (65 years). Other works are also interested in research trends on specific topics such as digital social networks, with analyses where variables such as year of publication, journal, research topic and citation count are crossed (Bakan & Han, 2019).

With a predominance of bibliometrics, the research of Moreno-Fernández and Fuentes-Lara (2019) on engagement and social networks; the systematic review of Vicente Torrico (2017) on transmedia narrative; and the work of Alcaide Muñoz et al. (2017) on the implementation of information and communication technologies in public administrations. Some contributions, in particular, are methodological references that give support to the look at post-truth and fake news in the framework of indexed journals. The work of Valverde-Berrocoso et al. (2022) asks about the didactic models implemented for coping with disinformation and fake news based on a systematic review of the literature (2011-2020) that analyzes a sample of scientific articles (n = 76) extracted from the WoS, Scopus and ERIC (Education Resources Information Center) databases.

Here it is interesting to highlight the work of Estrada-Cuzcano and Alhuay-Quispe (2020) who carry out a bibliometric approach to the Peruvian publication *Revista de Comunicación*, between the period from 2000 to 2019, focusing their analysis on thematic trends from the visualization by co-occurrence density of terms, which is a variable incorporated in the present study.

On the other hand, Gutiérrez-González and González-Pardo (2021) present the analysis of the scientific production related to public television (202 articles on the subject), disseminated between 2001

and 2019, in the Web of Science (WoS) and Emerging Sources Citation Index (ESCI). This research provides some important conclusions such as accounting for the knowledge gap within the field of communication around research on public television, which is mainly concentrated in Spain and the United States. And it adds to the examination of bibliometric elements a content analysis on the theoretical contributions of communication based on Craig's (1999, 2015) constitutive metamodel

This appeal to a theoretical matrix with academic legitimacy within the field of communication, despite the discussions it has raised since its appearance (Karam, 2019), is a resource consistent with the research objectives outlined here and therefore was part of the operationalization of variables.

Complementarily, it was relevant to note whether any connection with the classical theories of mass communication could be reflected. Likewise, it was important to recognize in which areas and sub-areas of communication the discussion and theoretical foundation of post-truth and fake news predominates.

It is worth mentioning that part of the contribution of the study lies in the apprehension of the conceptual trends manifested in the messages contained in the indexed journals under study, a questioning that explores dimensions of meaning and motives that could lead to the study of post-truth and fake news (Arias-Mendoza et al., 2020). In this context, the following research questions arise:

- RQ1: In which geographical regions of Ibero-America are scientific communication studies on post-truth and fake news concentrated?
- RQ2: What are the central descriptors that allow us to identify the conceptual network associated with the terms post-truth and fake news?
- RQ3: What are the prevalent methodological approaches in the studies?
- RQ4: Which communication disciplines or sub-disciplines are prevalent in the articles?
- RO5: Which are the most cited authors in the articles?

- RQ6: What are the theoretical approaches to communication on which the articles are based?
- RQ7: What conceptual approach to post-truth prevails in the articles?

MATERIAL AND METHOD

The analytical perspective takes up Krippendorff (2003), in order to systematically explore the contents in order to subsequently formulate valid conclusions about the textual content, within the framework of its context of use.

Population

It was delimited by the set of 17 Ibero-American journals specialized in Communication, with high impact indexes (Web of Science (WoS), Emerging Sources Citation Index (ESCI) and Scopus). These journals are Cuadernos.info (Chile), Palabra Clave (Colombia), Comunicación y Sociedad (México), Signo y Pensamiento (Colombia), Cogency (Chile), Dixit (Uruguay), Austral Comunicación (Argentina), Revista de Comunicación (Perú), Comunicación y Medios (Chile), Question (Argentina), Chasqui-Revista Latinoamericana de Comunicación (Ecuador), Perspectivas de la comunicación (Chile), Oficios Terrestres (Argentina), Comunicar (Spain), Profesional de la Información (Spain), Revista Latina de Comunicación Social (Spain) and Communication and Society (Spain).

Procedure

It is based on the protocol statement PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses), approached from Urrútia and Bonfill (2010), highlighting 27 key criteria for this type of systematic reviews. Of these, the following were taken into account:

Eligibility and exclusion. The language used for the eligibility criteria of the texts is Spanish and English, whose subject of study in principle is post-truth, and, in the second instance, the term fake news. Articles in scientific journals not indexed or outside the main WoS collection were excluded, ESCI and Scopus. Also excluded were texts

such as books, book chapters, editorials, reviews, critiques or abstracts, articles not published in the observation window (2000-2019) or outside the field of Communication. It was decided to include the ESCI because it has "a thematic proximity to that of Communication and a certain mixed character" (Torre Espinosa et al., 2019, p. 3) between Humanities and Social Sciences.

Selection of studies. In the search engine of the databases present in Web of Science, the key words in the search engine were used: TS = (Pos truth OR post truth OR Fake News OR Fake News), yielding a total of 4 773 documents; then, and according to the inclusion and exclusion criteria, only the articles that belonged to the area of communication and that their language was English and Spanish were filtered, yielding a total of 369 documents that correspond to 7.7% of the universe. Of these documents, only those belonging to journals from Latin American countries were filtered, yielding a total of 44 papers, of which seven were discarded because they were not open access, resulting in a definitive sample of 37 articles. In Scopus, after searching for the keywords: (Pos truth OR post truth OR Fake News OR Fake News), a total of 53 documents were found, of which 40 were selected that were in accordance with the inclusion and exclusion criteria; then, when filtered by the Ibero-American journals present, a total of nine articles were obtained. These articles are also present in their entirety in the WoS results.

Operationalization of variables. The operationalization process was initiated following the recommendations of Igartua (2006) and the literature review. Thus, a protocol of analysis categories was designed for each code or variable considered relevant and a quantification system was proposed for each one, through the design of the analysis instrument or codebook.

In the codebook, bibliometric and analytical variables were considered. Each one of them applied to each unit of analysis and with the aprioristic criteria of contrasted authors in the field. An evaluation mechanism was also generated, inspired by similar studies (Gutiérrez-Gonzalez & Gonzalez-Pardo, 2021; Martínez-Nicolás et al., 2018; Piñeiro-Naval, 2020; Walter et al., 2018).

These units of analysis were grouped to identify, in a statistically significant way, publication patterns or clusters and compare them according to the variables defined for the study. In total, there are 27 variables, three basic identification variables and 24 analytical variables, which were schematically transferred to a coding card created in Excel, in which the values corresponding to each unit of analysis were recorded; these values were then digitized and statistically processed in the Excel software and, in the case of the analytical variables, in the SPSS software.

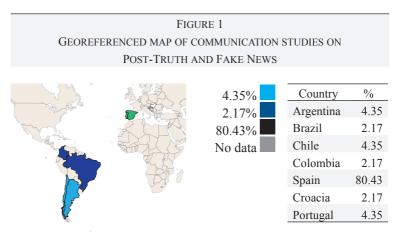
In addition, the codebook underwent three validation processes by expert researchers. Data collection (coding) was carried out by the project researchers using the coding form. The coding process was piloted among the coders and an intercoder test was performed. Likewise, for the reliability check, a random subsample of 10% of the cases (n = 6) was selected for analysis and calculation with the coders of the analytical stage.

After reviewing the exploratory coding results, the researchers discussed discrepancies and reviewed the data analysis criteria by referring to previous research and conceptual elements. The statistical parameter used for the calculation of inter-rater reliability was Krippendorff's Alpha (Krippendorff, 2011, 2017) found by employing the "Kalpha macro" (Hayes & Krippendorff, 2007).

Krippendorff's Alpha coefficient has a special attraction in that it allows the calculation of inter-rater agreement for all types of variables according to their level of measurement. In addition, it can be used in studies where the same material is coded by more than two coders (Igartua, 2006). With the data obtained from the coding process, the data were exported to SPSS. The mean reliability of the 24 analytical variables was favorable: M (α k) = 0.8815; with values ranging from "0.7167" to "1.0".

RESULTS

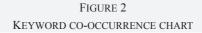
Figure 1 responds to RQ1 about the geographic regions of Ibero-America where scientific communication studies on post-truth and fake news are concentrated. According to the review, the country with the highest representation of studies on post-truth and fake news is Spain with 80.43% within the study sample, i.e. 37 out of 46 papers were generated and published in high-impact Spanish communication journals. This is followed by statistically smaller contributions from Latin America, with Argentina (4.35%), Chile (4.35%), Brazil (2.1%) and Colombia (2.17%). Croatia and Portugal appear with a contribution of 2.17% and 4.35%, respectively.

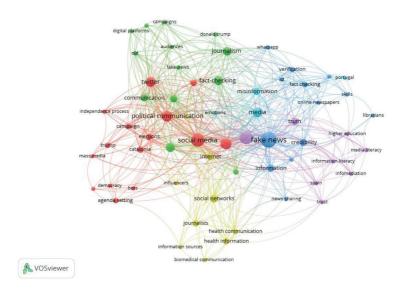


Source: Own elaboration.

In order to answer RQ2, an analysis from the VOSviewer application was necessary to obtain the keyword co-occurrence index. A total of 62 Keywords (KW+), with a frequency ≥2, in which the degree of similarity of the KW+ was analyzed from their semantic homogeneity and from which clusters were formed and visualized through a labeled bibliometric map (Figure 2).

The KW+ that presented the highest representativeness at frequency level are fake news (24), post-truth (16), social media (16), disinformation (11), political communication (9), fact-checking (8), media (7) and Twitter (7). However, if the frequencies on KW+ dedicated to social media (Twitter, Facebook, WhatsApp, digital journalism) were added in total, it would be the thematic core with the highest presence (32).





Source: Own elaboration.

In addition, Figure 3 shows the word cloud that presents the descriptors as central axes and that was extracted from a different application (Voyant Tools) with similar results: communication, post-truth, news, fake news, networks, news and disinformation.

By its configuration and grouping can be identified from left to right (four) segments: the first one concentrates on checking associated with the analysis of digital content, the second segment presents the connection between disinformation and news which in turn are linked to social media, politics and cybermedia; the central segment takes as its vertical axis the communication associated with fake news, post-truth, the analysis of Internet sources and information networks; finally the fourth segment corresponds to journalism in its informational role, the scientific dimension and the analysis of credibility.

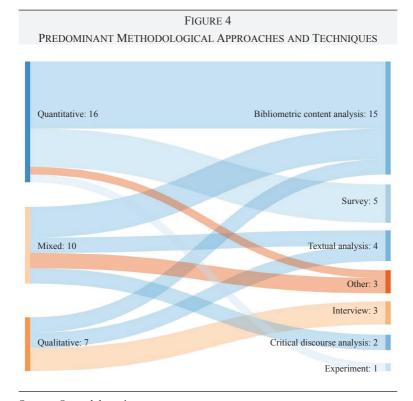
FIGURE 3
KEYWORD CLOUD



Source: Own elaboration.

Figure 4 responds to RQ3 and identifies a series of trends related to the use of methods and techniques that support post-truth and fake news studies. The approach that prevails in the articles is quantitative, present in 34.8% of the sample, followed by the mixed model in 21.7% and the qualitative paradigm in 15.2%. On the other hand, the graph allows us to identify two trends in terms of techniques related to the quantitative perspective, the first corresponds to the development of mixed designs applied with bibliometric content analysis and the second trend refers to the survey as a technique mainly associated with the quantitative approach. A third methodological trend is qualitative studies supported by the interview technique.

On the other hand, the academic production examined on post-truth and fake news is mostly from a scientific approach. Of the total sample, 65.2% of the articles analyzed were research articles, followed by 32.6% corresponding to reflection articles and the remaining 2.2% of theoretical documents with systematic review. It is particularly noteworthy that the sub-discipline of communication, RQ4, that most reflects an inclination towards examination with declared research methodology are Journalism and Communication studies (35 out of 46 units). In turn, it was found that within these there is a significant

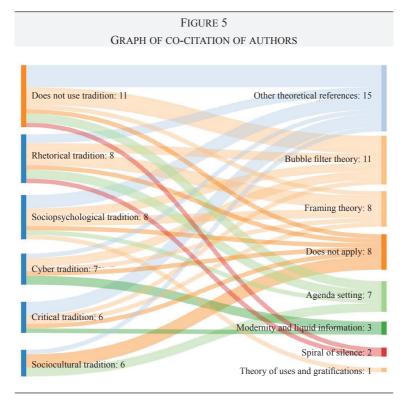


Source: Own elaboration.

association towards Digital Communication, Networks and Processes in 32.6%.

With respect to RQ5 and taking into account the author co citation network, a total of 1 874 authors were found (Figure 5), of which, with a frequency ≥ 2 in total there were 358 represented in 8 clusters. It can be noted that the main authors who received citations in the last 19 years are: Allcott H., red cluster and 16 citations; Graves I., red cluster and 14 citations; Newman N., green cluster and 13 citations; Casero-Ripolles A., dark blue cluster and 13 citations; Bennett W. L., turquoise blue cluster and 12 citations; Vasougui S., red cluster and 12 citations; Hermida A., green cluster and 10 citations; and European Commission, purple cluster and 10 citations. Other authors appearing in this review

are Pariser E., Castells M., McCombs M., Masip P., Arguete N., and López-García, G.



Source: Own elaboration.

The main trends in terms of the theoretical approach of the articles, RQ6 in Figure 6, in relation to Craig's (1999) constitutive metamodel and the communication theories chosen for the codebook, reveal three associations towards the Rhetorical tradition, the Socio-Psychological tradition and the Critical tradition, especially among the group of articles that are concretely and explicitly grounded in some of the communication theories put forward in the codebook as alternatives to Craig's metamodel. However, the Framing Theory (or news framing) is illustrated as being more strongly associated with the rhetorical tradition and to a lesser extent with the social-psychological tradition. On the

other hand, Agenda Setting Theory has a marked association with the socio-cultural tradition and the rhetorical tradition. It is noteworthy that Pariser's (2011, 2017) recently emerged theory of bubble filters has associations with the Rhetorical, Socio-Psychological, Cybernetic and Critical traditions. Although, it should be noted, there is also a suggested absence of relationship with any of the communication traditions in some of those articles that do explicitly point to Pariser's theory as a theoretical underpinning.

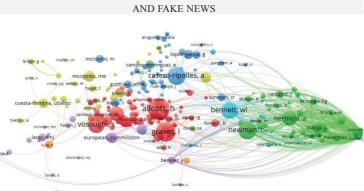


FIGURE 6
THEORETICAL APPROACHES TO COMMUNICATION IN POST-TRUTH

Source: Own elaboration.

Regarding the trends noted in the conceptual approach to post-truth (RQ7), the most relevant finding shows that 37.0% of the sample considers that post-truth has been consolidating as a research topic during the last few years. At the same time, 34.8% expressly state or assume that post-truth is a danger to democratic systems due to the effect of disinformation. Consistent with this finding, 34.8% clearly express the need and/or emergence of studying post-truth and 32.6% of the cases consider that post-truth has evolved as a study phenomenon

with the media use of TICS and the different communication dynamics. TICS and the different communicational dynamics established in digital social networks. Finally, 28.3% focus on the Media, Technological and Informational Ecosystem.

DISCUSSION

The first of the relevant findings lies in confirming that the central interest in post-truth and fake news within the academic production scenario of Ibero-American communication journals is accentuated and developed as of 2016, which coincides with the notoriety granted to the concepts when they were chosen "words of the year", in 2016 and 2017 respectively, by prestigious authorities such as the Oxford English Dictionary and the Collins Dictionary.

However, scientific production in high impact communication journals is predominantly concentrated in Spain, as the results reflect that 80.43% of the study sample, i.e. 37 of 46 documents, were generated and published in Spanish high impact communication journals. Latin America appears a little further behind under these parameters of analysis from the study sample, with the specific participation of Argentina (4.35%), Chile (4.35%), Brazil (2.1%) and Colombia (2.17%).

This result may suggest an interest associated with the editorial nature of the selected journals, since it was *El Profesional de la Información* (EPI), the Spanish publication with 45.7% of the representation, which led the list of journals with the greatest interest and production related to post-truth and fake news; followed by *Communication and Society* (21.7%) and the *Revista Latina de Comunicación Social* (15.2%), the latter also Spanish publications.

It should be recalled that with regard to EPI, its evident inclination towards both topics coincides with what is described by López-Robles et al. (2019) in establishing that the Iberian journal has a preference for researching and reflecting on: "communication, information, indicators, libraries and information technologies, with important considerations to the use and treatment of data, as well as its storage and dissemination" (p.15).

In this sense, the results of the systematic review provide evidence of the contribution and bibliometric, scientometric and analytical impact of EPI to understand the nature and evolution of the studies referred to in the framework of post-truth and fake news. Indeed, this interest was reaffirmed in the publication of its special issue "28(3) (2019): Post-Truth and Disinformation" dedicated exclusively to reflect on these issues.

This result is consistent, in turn, with the review of semantic clusters through the counting of keywords in the articles in which the connection of the terms post-truth and fake news with the words "disinformation", "political communication", social media (Twitter, Facebook, WhatsApp and digital journalism) or fact-checking is clear and strong. This affinity is noted in the conceptual approach that emphasizes the technological dimension of post-truth, if we take into account that at least 13 of the 46 articles (28.3%) focus on the "Media, Technological and Informational Ecosystem". In turn, 32.6% of the papers state that post-truth has evolved as a study phenomenon with the media use of TICS and the different communication dynamics. TICS and the different communicational dynamics established in digital social networks.

This does not rule out the rest of the conceptual dimensions of post-truth, such as its novelty or historical recycling or political and epistemological designation, but it does express a certain degree of consensus that its nominal existence and meaning could not be separated from the mass media, digital and informational ecosystem, with its tangible dynamics and interrelationships in a reality such as the present reference.

Consequently, it is not surprising that the sub-discipline of communication that has been most interested in post-truth and fake news within the selected sample is "Journalism and Communication" (35 out of 46 units). And that additionally, within these papers, the trend is towards "Digital Communication, Networks and Processes", in 15 articles of the final sample (32.6%).

Another important aspect of this finding is the empirical approach, or the concern that research and academic production of the notions of post-truth and fake news should be carried out from one of the methodological approaches that support and rigorously support the work of the Academy. Thus, 65.2% of the articles analyzed are research articles, followed by 32.6% of reflection articles and the remaining 2.2% of theoretical approach with systematic review.

Regarding the theoretical foundation of the articles, an appeal to Craig's (1999) communication traditions is observed in most of them. The Rhetorical and Sociopsychological traditions stand out, each with 17.4% of the sample; followed by the Cybernetic tradition (15.2%) in seven of the documents; then, the Sociocultural tradition and the Critical tradition each with 13%, that is, each present in six articles of the sample.

It makes sense that the articles reflect a certain theoretical inclination for the aforementioned traditions, if one takes into consideration the interpretations of communication that each one brings together. For example, the Rhetorical tradition is framed in "communication understood as a discourse practice" (Craig, 1999, p. 133), therefore, one could infer that in this conceptual field, it is justified to understand and explain what constitutes for the legitimacy of public discourses the propagation of false news and the configuration of an environment that blurs or trivializes public and social truth.

On the contrary, none of the articles in the sample was sustained neither in the Phenomenological tradition, nor in the Semiotic tradition, which can be assumed as a departure from those theoretical frameworks where the protagonism is given to individual subjectivity or to the intersubjective mediation of signs and symbols. In fact, when more concrete theories are identified, even if they do not directly intersect, or develop inexorably fused to any of the traditions of Craig's metamodel, a kind of harmony of the central categories of the theory with the larger matrix can be deduced. This can be seen in the associations between, for example, framing theory (or news framing) linked with emphasis to the rhetorical tradition and to a lesser extent to the Sociopsychological tradition, which is interested in communication as "expression, interaction and influence" (Craig, 1999, p. 133).

Bauman's (2004) perspective of "liquid modernity" appears to be related to the cybernetic tradition and the critical tradition, the former concerned with information processing and the systemic functioning of

communication, while the latter questions the discourses of power or dominant discourses.

From another angle, it is interesting to notice in the Theory of "Bubble Filters" (Pariser, 2011, 2017), represented in 11 of the 46 articles (13% of the sample), a difficulty in framing itself in one tradition or another. It can be thought that this theory is of recent appearance and is "naturally" incorporated into a reading of the social dynamics in the use of technological devices and consumption of information through digital social networks, claiming a certain novelty by explicitly arguing that the information that reaches people on technological platforms occurs through personalization and indicators of liking or affinity such as "likes" and no longer only through the proposal or news and information agenda of traditional media.

Pariser (2017) describes the cognitive distances to which users of digital platforms and social networks are exposed: by reinforcing consumption and interaction only in certain informational niches or digital communities, individuals lose the opportunity to know other opinions and information, other than those that are not congruent with their tastes, interests, beliefs and values. Thus, the visions of the world that each person configures are cut, depending on the personalization that technology provides through the inclusion of "bots" and algorithms, with which it is already possible to map tastes, preferences, psychologically profile and segment the users of technologies (Harsin, 2015; Masip et al., 2019).

Van der Linden et al. (2020) analyze the impact of fake news in the media and networks, seen as an inadequate mechanism for political manipulation. In this sense, they delve into the framework of the ideological polarization of media affiliation, as it happens in the informational contrast presented at the time by CNN and Fox News, against the Trump administration. Therefore, the assessment of trust in the media and its news from the political scenario is relative according to the affinity that people have, who in their social representations assume the veracity in the contents of the media that reflects their political preference, while they disqualify the contents of politically contradictory media, assuming them as false news.

Wardle and Derakhshan (2017) develop a conceptual, methodological and interdisciplinary approach to one of the emerging categories in the analysis of post-truth considered as "information disorder". Among their findings, they highlight the need to understand the mechanisms that people use to process information from the framework of the traditions of sociological and cultural theories, generating in turn an additional topic on how content emerges and is socioculturally positioned from a segmented perspective derived from preferences, affinity and relative credibility of source verification strategies and the analysis of the implications of collective narratives built in the media and social networks.

These types of theoretical approaches are a significant input that should lead us to broaden the analytical spectrum of knowledge and understanding of post-truth and fake news, as they reveal substantial elements to face with more awareness and assimilate how, for example, the collapse of citizen confidence in public institutions or in journalism itself, which was previously recognized for its role in the construction of the truth stories that a democratic and free society demands, has been woven.

These findings represent a complex scenario of interaction with networks and the knowledge society, specifically in the field of communication and journalism. In summary, the phenomenon of post-truth and fake news has an impact on democratic systems and merits the need to deepen knowledge and reflection on these topics in order to positively impact the future of the professional work of social communicators, journalists and society as a whole.

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