Article

Combatting Fake News: A Global Priority Post COVID-19

Elvira Calvo-Gutiérrez [1] and Carles Marín-Lladó [2,*]

1 Department of Journalism and New Media, Universidad Complutense de Madrid, 28040 Madrid, Spain; ecalvogu@ucm.es
2 Department of Journalism and Corporate Communication, Universidad Rey Juan Carlos, 28943 Madrid, Spain
* Correspondence: carles.marin@urjc.es

Abstract: This paper reviews some academic works on fake news published in Spain in the last seven years, a period in which the 2016 and 2020 US elections and the COVID-19 pandemic marked a turning point in the 'era of disinformation', a term that the European Union (EU) describes as "verifiably false or misleading information that is created, presented and disseminated for profit or to deliberately mislead the public, and is likely to cause public harm". Methodology: Some of the most relevant academic articles on fake news published from 2016 to the present were analysed. Results: In the last seven years, hoaxes and fake news have become even more sophisticated—including audiovisual materials, known as deep fakes—and constitute a political and social concern of the first order insofar as they threaten democratic life and social harmony in all countries. Conclusions: Although it is not a phenomenon specific to the media, since it has found its natural medium in social networks and the Internet, disinformation—which polarises society and fosters hatred—once again calls into question the role of journalism in the world.

Keywords: fake news; hoaxes; disinformation; journalism; verification; fact checker

1. Introduction

Only 27% of Spanish people trust the media, according to data from the latest Eurobarometer of January 2023[1], which is lower than the European average (38%). The study also explores the reliability of social networks as a source of political information: 68% of Spaniards (60% of Europeans) do not trust the Internet.

The data only go to corroborate a universal trend that was already emerging almost a decade ago. At the local level, a study carried out in the Community of Madrid [1] provided similar data on the credibility of local news content. The study explored "attitudes towards information consumption to determine the elements that shape the credibility of news and to discern the degree of trust in journalistic media and online news. Four mixed focus groups were held with equal numbers of men and women", who were frequent Internet users and of average socio-economic standing. The focus groups referred to the Internet as a source of information in two ways: as a place to find information of any kind (Google was the most frequently mentioned) and as a source of news (social networks and blogs). Facebook was the worst rated social network in terms of generating trust, followed by Twitter.

The participants stated that they were aware of the existence of fake news on the web, which they associated with express intentionality and which they mainly found on social networks. The study showed that "distrust of the news is combated by cross-checking information from different media, which favours a varied diet of information". In addition, one of the main conclusions of the study was that "trust in a medium is the main factor in assessing whether a news item is credible". The study found that television is valued positively as a source of information, more so than print media, which means that journalism is one of the ways to combat fake news. Many individuals fact check it simply by considering different sources; others, almost 65%, only consume media that they like, an

effect known as the 'filter bubble.' The opposite effect is the variety of news among those users who obtain news from partisan sources. Some European studies suggest that only small minorities, and in low percentages, obtain news exclusively from partisan sources. Search engine algorithm selections of social media and other digital platforms lead to a more diverse news usage [2].

Thus, fake news has further destabilised the battered media landscape. In addition to the crisis of the traditional business model, the complex modern media technology and the changes in audiences, there is the threat of disinformation posed by the crisis in the concept of truth.

The rise and spread of social networks is an opportunity for journalism, but also a danger for the profession and for the population. Disinformation is growing and fake news is proliferating under the umbrella of populism [3]. A 2017 report by the consultancy firm Gartner stated that, by 2022, the Western public would consume more fake news than real news and that there would be insufficient capacity, both material and technological, to eliminate it.

The study of fake news in academia has exploded since 2016, in the wake of the US election process that gave Donald Trump victory over Hillary Clinton. Trump's headlong flight forward—with allegations of an international conspiracy, insistence on voter fraud and personal attacks on women accusing him of sexual assault—violated all the rulebooks on US electoral politics[2]. Trump—and his team—repeated this strategy in the 2020 election, which was followed by his refusal to recognise Joe Biden's victory and the now historic assault on Capitol Hill in January 2021.

The COVID-19 pandemic that devastated the world in 2020 was the second determining factor in the spread of hoaxes and therefore the proliferation of scientific papers on the subject of fake news. At the end of that year, a paper written by Professor Salaverría analysed the contents of almost 300 hoaxes related to the virus that spread in the first month of lockdown. The study showed that they were mainly disseminated on social networks, especially private channels, such as the mobile messaging app WhatsApp. The results revealed that "in addition to generating a large number of health and science hoaxes, the pandemic also led to the dissemination of significant false political and governmental content" [4]. In addition to providing a definition of the term hoax, the study identified four variations on fake news: hoax, exaggeration, decontextualisation and deception, and proposed a "hoax severity diagram", similar to those proposed by Tandoc, Wie Lim and Ling: news satire, news parody, news fabrication, news manipulation, advertising or propaganda. None meet the social purpose of journalism as the right to information as a pillar of democratic participation [5].

Although it may seem obvious, it is important to recognise some common characteristics in the use of digital media worldwide. The online news supply is plentiful, and users spend a limited amount of time with it. Many do not even look for them, but rather arrive involuntarily. Differences in news use are partially aligned with differences in age, gender, education and income, both in general [6] and around, for example, information about coronavirus [7]. In a survey carried out in the United Kingdom in 2021, only half of the users had gone directly to the website of a newspaper during the same week, while the rest had carried this out through social networks [8].

Fake news or hoaxes are similar concepts that lead to disinformation, defined by the European Commission[3] in 2018 as "false, inaccurate or misleading information, presented and promoted for the purpose of obtaining revenue or intentionally causing harm". To combat disinformation, the Commission report recommended the use of technological tools and the promotion of media education. The same report found that 83% of citizens believe that fake news is a threat to democracy that can be combatted by journalists (45%) better than national authorities (39%), the press and media companies (36%), people themselves (39%), online social networks (26%), European institutions (21%) and non-governmental organisations (15%).

As Sánchez de la Nieta points out, "in the face of this surprising confidence in the power of professional journalism as a guarantor of information in the public interest, the profession itself is affected by the power of social networks in the exercise of the profession and the quality of journalism" [2]. There are important studies that analyse their impact on professional routines [9], new formats and content [10], information verification techniques [11], the risks of immediacy [12], the possibilities of interaction with users or the use of these channels as information sources [13].

2. Materials and Methods

For this study, we referred to some of the most relevant academic papers on fake news published from 2016 to date in the Spanish academic field that were selected based on the specialisation of the authors or by the quality indices of the media in which they have been published. After ordering them chronologically, and after a first reading, a qualitative analysis of the parameters on which they work was carried out in order to then identify common and particular issues. This enabled us not only to obtain an overview of the subject matter, both nationally and internationally, but also to make some update proposals in the short and medium term thanks to an investigation into new tools such as other less popular networks, such as Telegram or TikTok, or artificial intelligence such as ChatGTP.

The reviewed papers are listed in the Table 1 below, including title, authors and publication. Three parameters are fundamental for drawing conclusions: first, the results of the papers themselves, including the bibliographical references that they contain; second, identifying the authors who usually follow the subject matter; and third, the keywords that define the subject.

Table 1. Works analysed in the research.

Title/Year	Author(s)	Publication
1. El Fact-checking como herramienta de combate contra el sensacionalismo (2016) [14]	Lucía Álvarez Gromaz Xosé López García	Book: Sensacionalismo y amarillismo en la historia de la comunicación
2. Fake news, ¿amenaza u oportunidad para los profesionales de la información y la documentación? (2018) [15]	Alexandre López-Borrull Josep Vives-Gràcia Joan-Isidre Badell	Journal: El profesional de la información
3. Credibilidad de los contenidos informativos en tiempos de fake news: Comunidad de Madrid (2021) [1]	Tamara Vázquez-Barrio Teresa Torrecillas-Lacave Rebeca Suárez-Álvarez	Notebooks. INFO
4. Periodismo vs. desinformación: la función social del periodista profesional en la era de las fake news y la posverdad (2020) [3]	Miguel Ángel Sánchez de la Nieta Hernández Carmen Fuente Cobo	Journal: Sintaxis
5. Plataformas fact-checking: las fakes news desmentidas por Newtral en la crisis del coronavirus en España (2020) [16]	Yaiza Pozo-Montesa Marina León-Manovela Ignacio Blanco-Alfonso	Journal: Revista Española de Comunicación en Salud
6. El fact-checking como estrategia global para contener la desinformación (2021) [17]	María-Ángeles Chaparro-Domínguez Rafael Repiso	Journal: Estudios sobre el Mensaje Periodístico
7. Fake News en la era de las redes sociales y la desinformación (2021) [18]	Luz del Rosario Levano France Juan José Tanta Restrepo	Book: Retos del Periodismo en la era digital (chapter III)
8. Discurso político y desinformación ante el COVID19. Fact-checking y calidad periodística como antídotos del bulo en Twitter (2021) [19]	Concha Pérez-Curiel	Book: Retos del Periodismo en la era digital (chapter XI)
9. Fact-checking audiovisual en la era de la posverdad. ¿Qué significa validar una imagen? (2021) [20]	Aarón Rodríguez-Serrano María Soler-Campillo Javier Marzal-Felici	Journal: Revista Latina de Comunicación Social
10. La verificación en la era de las fake news. Algunos ejemplos sobre el COVID-19 (2022) [21]	Ángeles Fernández Barrero Isaac López Redondo	Journal: Ámbitos

In the second part of the work, and after identifying the most used words in the analysed articles, an online search for news was accomplished that allowed us, on the one hand, to know which Spanish digital media usually report on the topic of the article, and, on the other, to identify new methods and tools, both for creating hoaxes and for combatting them.

3. Results

3.1. New Social Profile of the Journalist: Fact Checker or Verifier

If there is one term that defines the current media landscape, it is sensationalism, a practice that has accompanied journalism throughout its history but that has now become a clickbait strategy; that is, to attract the greatest attention and encourage users to click on a link, even if this requires lying, exaggerating or distorting reality [14].

To combat this, quality media have created a new professional figure, the fact checker: a vigilant journalist who investigates the origin of information and its relevance, avoiding misleading statements or fanciful explanations that misinform the reader. In 2003, the first professional initiative emerged, the platform factcheck.org, a project by the University of Pennsylvania, which set itself up as a consumer/voter advocate to reduce the level of deception and confusion in US politics by monitoring what the main political actors are saying in TV spots, debates, speeches, interviews and press releases. The platform has inspired many other initiatives in the Americas, Europe and Africa. In Spain, the pioneers were the companies Maldito Bulo (2018) and Newtral (2019), which today have been transformed into media outlets dedicated to fact checking.

To combat misinformation, news agencies must adopt the new social function of fact-checking [2], as demanded by citizens and imposed by the most demanding media. Professional journalism is the main defender of the truth and guarantor of the right to information.

Fake news is a threat to information professionals, but, as some authors argue, it is also an opportunity [15] to develop new practices and activities that encourage the participation and collaboration of other professionals, such as documentation specialists and education professionals, and even citizens themselves. Fake news is fought with real news and better education, through media literacy awareness campaigns and by reclaiming the role of information professionals as trainers of critical users.

3.2. The Credibility of News Content and the Concept of 'Truth'

Many studies have been carried out in different fields to determine the degree of public trust in the media or disinformation about the concept of 'truth.' We highlight here two, both carried out in the Community of Madrid (Spanish region), but with different target groups. Although they cannot be extrapolated, they may serve well as a reference for verifying the results of related and subsequently analysed work.

One of these is a study by Vázquez-Barrio et al. [1] that explored attitudes towards information consumption in four groups of mixed genders and social classes, Internet users and residents of the Madrid region, to determine the elements that shape the credibility of news and to identify the reasons for the degree of trust in journalistic media and online news from other sources. According to the findings, trust in the media is seen as the primary factor in assessing whether a news story is credible or not. Participants were aware of the existence of fake news on the web, which they associated with express intentionality and which they located primarily on social networks. It is also clear that fake news is combatted by cross-checking information on different media, which favours a varied diet of information.

The aforementioned study shows that news agencies still play a predominant role (more television than the written press) as sources of information, although many of their news items are distributed via social networks, with Twitter seen as the most reliable and Facebook the least. The study also reached interesting conclusions on cross-checking or paying for information. Participants living in an 'information bubble' or 'glass cage' fail

to consult different sources of information and instead listen to, read and watch only the media that they like. In Spain, this comprises 62% of the surveyed population.

The second study examined the concept of truth. This is the project "Europe, the truth", an initiative of the European Parliament to measure the sensitivity that exists in the university environment and to advance the need for a social movement that defends the truth as the basis of the current democratic system and the European project. To this end, in May 2022, the European Parliament asked several universities to collaborate on the issue of truth "in an information society where fake news proliferates". From 5 to 9 May, the community of the Complutense University of Madrid answered this opinion poll on the concept of truth with the following questionnaire (Table 2):

Table 2. "Real Europe" project questionnaire.

• Do you believe there is such a thing as truth?
• Do we live in a society that relativises truth?
• Do you think the following environments play a role in the deterioration of the truth?
○ Social Networking
○ The media
○ Politics
• Do you think denialism threatens academia?
• Do you believe that academia should be more active in defending the truth?
• Do you think you act responsibly in the care/search for this "truth" by documenting and cross-checking information?
• Where do you look to cross-check information?
○ Official and academic sources
○ Generic internet searches
○ Other (please specify)

Of the 4100 participants—including university professors, students and administrative staff—81% believe that we live in a society that relativises truth. Furthermore, eight out of ten believe that academia should be more active in defending the truth. Regarding the environments that play a role in the deterioration of the truth, the sample shows that, for 85.4% of respondents, social networks play a very important role; for 84.63%, the media; and, for 87.02%, politics. Seven out of ten (91.77%) say that they document and cross-check information and, of these, 63.72% do so only in official and academic sources; 21.97% in generic searches on the Internet; and 14.31% in other sources of information without specifying which.

3.3. The Big Lie in the US Elections

The coronavirus pandemic and the last two US elections (2016 and 2020) have been the most significant events for studying the spread of fake news, both in the media and on social networks. Because of their importance, we collected here some interesting elements that may be useful for future studies in the short and medium term.

Against all odds, Donald Trump won the 2016 US presidential election against his Democrat rival, Hilary Clinton, after a controversial campaign peppered with scandals, such as Trump's possible extramarital affair with a former porn star, Stormy Daniels, whom he allegedly paid to buy her silence, and the distrust generated by Clinton for having used a private server for her institutional emails. Some media, such as the BBC[4], analysed the keys to Trump's success: the rejection of the system and the traditional political class; disenchantment with the economic situation; the discourse of fear surrounding the threat of terrorism and the related media coverage; the massive influx of Mexicans across the border; and the hidden vote, especially among immigrants, the black population and white women, whom the polls had predicted would vote mostly for Clinton, though in the end, this was not the case.

In the 2020 election, Trump lost to Democrat Joe Biden. The controversy went further when the Republican refused to accept defeat and used the media and social networks to spread the (false) idea that the election had been 'stolen' from him, fuelling a dangerous narrative of electoral fraud shared by his followers online.

The phenomenon was analysed by the human rights platform, Avaaz, in collaboration with The New York Times, in a study that concludes that it was a core group of 25 people, led by Trump himself, who spread the denialist message: "The 20 Facebook posts . . . that generated the most interaction two weeks after the election were all from the president. And all were false or misleading, according to independent fact-checkers quoted by the Times. A single tweet from the president accusing Dominion, the vote-counting company accused of erasing 2.7 million votes, was shared 185,000 times and had 600,000 likes".

The trickle of lies and fake news cast doubt on the validity of postal votes and sought to undermine confidence in the electoral process, and it was this disinformation that undoubtedly lies behind the assault on the Capitol on 6 January 2021, which resulted two years later in the conviction of almost 200 people.

The media outlet most involved in this disinformation campaign was undoubtedly Fox News, which has recently been ordered to pay USD 787.5 million to Dominion Voting Systems in a settlement for defamation, proving that the channel lied to its viewers about the alleged fraud in the 2020 presidential election, as claimed by Trump.

3.4. Objective: To Contain Misinformation during the Coronavirus Pandemic

As noted above, fake news has forced many media outlets to incorporate professional fact checkers in their newsrooms. Initiatives have also been launched in the form of platforms or organisations whose main objective is to verify and disprove fake news in order to prevent or reduce the spread of misinformation.

This work reached its peak during the coronavirus pandemic in 2020 and has been the subject of a substantial body of research on the work developed by leading fact-checking companies in Spain, such as Newtral and Maldito bulo.

We highlight here four papers that investigated the fake news that spread during the coronavirus health crisis, the role played by social media and the work of fact-checking companies:

(1) One of them is published in the journal Estudios del Mensaje Periodístico and analyses almost 3000 records from the Newtral database in 2018 and 2019, i.e., just before the coronavirus outbreak. One of the main conclusions reached is that there are more fake news items than genuine ones (41.22% versus 32.52%) and that the media is the main source of dissemination of the misleading messages that were checked. Moreover, government sources are the first source of verification, credibility prevails over immediacy in the fact-checking process and politics is the subject area that generates the most fake news [17].

The preponderance of false content (41.22%) leads to a lack of trust among citizens, who doubt the truthfulness and even the accuracy of the information. In any study on disinformation, it is imperative to distinguish traditional media from digital media and satirical media, the latter two being the most prone to the spread of fake news. In terms of social networks, WhatsApp is the most misleading, followed by Facebook and Twitter.

Politics is the area that generates the most fake news. Before the coronavirus, Catalan nationalism, immigration, racism and gender-based violence were the most controversial topics, suggesting that economic and ideological objectives are behind many fake news stories. Quick access to sources is essential for verifying the information and official sources, and the media play a key role in this regard.

(2) A second paper, published in the Revista Española de Comunicación en Salud, is also based on Newtral data, in this case examining more than a hundred fake news items that spread during the two months of lockdown. The most frequently used network was WhatsApp [16]. The authors point out that journalistic practice has adopted fact checking as an optimal tool for disproving fake news circulating on social networks and in some media

outlets. During the health crisis triggered by the coronavirus, fact checking became essential. The study analysed the features of the fake news that Newtral debunked, examining 104 pieces of information on COVID-19 that were distributed during the two months of lockdown. The results show that the fake news circulated mainly via manipulated texts and audios on WhatsApp, the facts of which Newtral checked according to four elements: the subject matter, the format, the channel of dissemination and—perhaps the most difficult—the attribution of authorship.

The paper not only analysed the function of the independent Spanish fact-checking platform Newtral, which played a fundamental role in debunking fake news, but also defined the new journalistic profile of the fact checker, a figure that is not only expanding but is also essential for the future of journalism, where trust in information is being restored thanks to tools that can dismantle fake news by tracing it back to its source.

(3) The third paper focuses on political discourse and misinformation on Twitter even before COVID-19, also pointing out not only people's distrust of politicians and the media but also the difficulty in obtaining valuable information on public affairs [19]. The author argues that the spread of the coronavirus generated an international political crisis in which national leaders had to publicly announce states of alarm and restrictive measures that were then compounded and confused by the fake news that immediately spread through social networks; in this case, Twitter. In this context, it is worth asking to what extent the discourse of political leaders influenced the generation of fake news, whether the processes adopted by fact-checking agencies were effective and the resources journalists used to guarantee the quality of the news published.

Curiel argues that the health crisis caused social insecurity and uncertainty, and that this was the breeding ground for fake news, with many items feeding on ignorance or a lack of trust in the authorities. Political messages were distorted or exaggerated, and fact-checking platforms rushed to disprove them without providing sufficient evidence of the truth, so that when information was disproved, it did not achieve the same impact as the original story, not to mention the high levels of sensationalism adopted by traditional media.

(4) The last paper was published in the journal Ámbitos in 2022. It follows the same line as the previous three. The authors argue that Spain was one of the countries most affected by fake news during the coronavirus pandemic. The infodemic 'infected' 80% of the population and their research agrees that the WhatsApp messaging system was the channel most widely used [21].

Although the fact-checking platforms, or agencies, most mentioned in this paper, and pioneers in Spain—Maldita.es, Newtral and EFE Verifica—were established just one or two years before the health crisis, the pandemic forced them to expand and accelerate their operations. According to these authors, the fact checker has recently grown in importance in content production due to the need to identify and combat disinformation. However, only quality media and these agencies adopt primary fact-checking procedures, while more passive media opt for mediatised processes and are more likely to allow fake news to slip through the net. Hence, it is imperative to refer to authoritative sources.

3.5. Audiovisual Fact Checking: When the Fake Can Even Be Seen

Post-truth has accelerated the propagandistic and manipulative use of audiovisual content. During the coronavirus crisis, highly emotive images of hospitals, corpses and coffins filled our screens, which fact-checking agencies (Newtral, Maldita.es and EFE Verifica) were often quick to disprove; however, it was already too late, and damage was already carried out.

A study by the Jaume I University (Valencian Community, Spain) identified some common characteristics of this false information: more than half of them were images, which are a primary method of social disinformation—shared memes, alleged photos of politicians making statements, decontextualised photomontages and other created images. Images designed to spread disinformation are never innocent and are used to instill an

unreal ideology or worldview into the collective imagination, especially through social networks [20]. Image checking must be complemented by textual analysis.

A high proportion of fake news relies on photographs and video thanks to advances in technology and the difficulty of detecting them, as demonstrated in numerous studies. Research conducted in 2019 at the University of Warwick (UK) showed that participants identified fake images in only 60% of cases, highlighting the importance of awareness and use of tools that help to determine whether what we see is real or not. Journalist and researcher Molly Stellino compiled up to nine free websites or apps that can help to verify an image or video: Ffmpeg, FotoForensics, Google Images Reverse Lookup, InVID, Serelay, SunCalc, TinEye and Truepic [22].

3.6. Social Networks and Artificial Intelligence: Telegram, TikTok and ChatGPT

Social networks favour the distribution of fake news—especially WhatsApp, Facebook and Twitter—in the form of doctored videos and audios, for which the most difficult thing to determine is the authorship. These are the most popular materials in the studies examined in this paper, although there are suggestions that more recent channels—such as Telegram or TikTok—are the new preferred networks for fake news since the coronavirus crisis. The chat system using artificial intelligence has also had a strong impact in all areas, including the media.

Telegram is a messaging platform similar to the popular WhatsApp that originated in Russia and is now headquartered in Dubai. The platform, which supports up to 14 languages, was launched in 2013 as an instant messaging service that also sends files. By January 2021, it had reached one billion downloads. This highly adaptable and user-friendly app has managed to get past the Russian firewall, making it a very popular information medium. It has been used by political leaders, celebrities and the media during protests and demonstrations in Russia, Belarus, Catalonia, Hong Kong, Korea, Brazil and Chile, and user numbers grew after Facebook purchased WhatsApp, although it has subsequently been accused of being used by the Islamic State and for disseminating child pornography, drug distribution and violating intellectual property laws. Unlike WhatsApp, Telegram can create groups with an unlimited number of participants, which favours the spread of fake news. It has also become an ideal market for cybercriminals deploying bots offering scams in the form of services. Since the coronavirus epidemic, the platform has become a haven for propagators of fake news, conspiracy theories and extremist discourse.

According to the Servimedia agency[5], the Spanish platform Maldita.es carried out an investigation between January 2020 and September 2021 in which it analysed 30 channels used to disseminate disinformation that call themselves "independent news channels" or "channels for the dissemination of alternative information" and claim to be uncensored media, but the truth is that their content is rife with disinformation and conspiracy theories of all kinds. These channels or accounts are often linked to other websites and platforms, such as YouTube, Twitch, Twitter, Instagram or Ivoox, in case they are blocked. Almost 22% of the messages analysed were forwarded.

The social network TikTok was created in China in 2016 to share short videos in vertical format. In just a couple of years, it became a global sensation and, by 2020, it had already surpassed two billion downloads worldwide. The content is predominantly viral trends featuring music, dance or certain competitions. More than 40% of users are aged 16–24, but it was also quickly taken up by politicians, from Trump's 2020 election campaign to Holocaust denial. It is currently a cause for concern because of the dependency it creates among young users and for content circulating concerning terrorism, child pornography and misinformation on the coronavirus. Several countries temporarily blocked or banned its use on corporate phones, including the United States and the European Union, to protect data and cybersecurity after the platform was accused of spying for the Chinese government.

Another line of future research is artificial intelligence, specifically ChatGPT, a chat system that has become popular in recent months, which uses AI to perform language-

related tasks, from translation to text generation. This means that it can also be used for journalistic texts, from press releases to news items, and even for documentation, and the question arises as to whether it could replace real journalists. By drawing on all the information circulating on the Internet, the new tool can create a news item or appropriate one that has been published in professional media. Some US media, such as Insider, have already asked their staff to experiment with chatbots, more as an aid than as a professional substitute, insofar as they can make errors or plagiarise work already published. In addition to the danger of social networks, there is now a new enemy: artificial intelligence.

3.7. Media Education to Combat Misinformation

The digital age and the virtual world have made it more difficult to believe what you hear or read. Social networks have played a decisive role in this propagation of information. Reporting an unconfirmed fact is not good practice, even though the creators of fake news are often not professional journalists. Picking up false information and disseminating it immediately can have serious consequences.

Fake news generates disinformation that, in turn, is spread through social networks. The media use social networks to provide users with information in real time, which leads to the risk of misinformation. Based on this study, the authors recommend that journalists contextualise the information that they disseminate through social networks and that users make an effort to discern the credibility of sources as either reputable and reliable or unknown [18]. In short, media education would appear to be a political, social and cultural emergency.

The education system must address the training of fact checkers as soon as possible, as academia has been demanding for years. This is especially important when it comes to images, given that audiovisuals have spread across the entire information spectrum and are a global trend: young people consume up to seven hours of videos and images every day [20]. The new digital scenario has generated a media space where users share and produce content that can include viral and replicated fake news, thus aggravating the situation of disinformation. The authors argue that fact checking will restore the quality of journalism but can also improve the media skills of users. Some specialised agencies, such as Maldita.es, Newtral or Verificat.cat, offer a wide range of training programmes intended for a very broad audience, from secondary schools to associations and communities.

Media literacy or media education is a necessary tool for learning how to differentiate between real and false information and doctored images and, above all, how to stay informed but also aware. In the audiovisual world, trash TV and social networks have become loudspeakers for misinformation and fake news, but also for online bullying. Media and audiovisual education should be afforded greater importance throughout the education system, as demanded in the manifesto "Educommunication in Spain: an urgent challenge for digital society". The proposal was introduced into Spanish law through the act to amend the child and youth protection system approved in July 2015[6], but, apart from a few initiatives, there have been few developments.

As several authors point out, "it is necessary to adapt information diet or media ecology from the user's perspective, alternating moments of disconnection, without abandoning the efforts that Educommunication and communication policy could make towards social transformation, in order to promote quality educational, cultural and information content from a perspective of pluralism and citizen participation" [23].

In 2018, the International Federation of Journalists published its "Guide to Combating Disinformation in the Post-Truth Era[7]". This document serves as the basis for the media education that so many professionals, including those in academia, are calling for. In 17 pages, the guide describes what fake news is, why it is disseminated, the different types of false information and the main features of the post-truth era. This includes the very interesting eight reasons for disinformation ("the 8 Ps"): poor journalism, parody, provocation, passion, partisanship, profit, political power and propaganda, as well as case studies in which fake news has undermined democracy and social harmony in different countries. The guide

concludes that fake news is affecting not only the right to information but also influencing society as a whole. Disinformation and propaganda strongly affect democracy, erode the credibility of traditional media, interfere with the right to information and can increase hostility and hatred towards certain vulnerable groups in society. The guide provides tools for detecting fake news and highlights the importance of taking initiatives from civil society and the media to identify deliberately false news, disinformation and propaganda, as well as to raise awareness on these issues.

3.8. Keywords for the Future Research

Fake news is the target of numerous studies from the academic field. This paper analysed some of the most cited since 2016. A growing trend has been observed in the production of papers since the pandemic and the most frequently discussed concepts, in the form of keywords, have been disinformation (6), fact-checking (5), fake news (5) and verification. The following Table 3 lists the most used keywords (in alphabetical order) and serves to guide future research.

Table 3. Keywords in the selected papers and the number of times that they are repeated.

Keywords	Frequency of Use
Media literacy	2
Textual analysis	1
Librarians and documentalists	2
Hoaxes	1
Trust	1
Coronavirus	2
Credibility	2
Content curation	1
Right to information	2
Disinformation	6
Professional ethics	1
Fact-checking	5
Fake news	5
Newtral	1
News	1
Fake news	3
Journalism	4
Post-truth	4
Information and documentation Professionals	1
Pseudoscience	1
Social media	2
Semiotic Representation	1
Sensationalism	1
Verification	5

These terms were used to carry out a Google search on news items that deal with disinformation outside the academic sphere. The results suggest that not only the general media, which have already incorporated verification tools into their daily work, but also numerous websites and social platforms are trying to combat the new epidemic of the 21st century, as can be seen in the endnotes of this work.

4. Discussion and Conclusions

In quality media, fact checking is the best technique to combat sensationalist bias and verify content. This is evident in all the papers analysed. The search for truth and the greatest possible accuracy has always been the objective of quality journalism. Several factors contribute to the loss of credibility, including sensationalism and the dissemination of false information.

Fact checking is proven to help combat such sensationalist biases and the media that are rated as the most reliable apply this practice.

As a growing practice with an increasing physical presence, followers and support from organisations, the data show that fact checking is here to stay and demonstrate its role as a tool against press sensationalism.

Quick access to sources is essential for cross-checking information. In this sense, official sources and the media play a fundamental role in restoring confidence in the public sphere and social dialogue. The International Federation of Journalists' Guide to Combating Disinformation in the Post-Truth Era is an excellent option for combatting fake news and a basic tool for creating media education courses for all levels of society. Institutions, journalists and citizens must fight disinformation.

Fake news can be fought with more (real) information and education by professionals, but also by the target audiences themselves. When it comes to obtaining reliable information, news companies still play a predominant role, although social platforms share a large part of the traffic generated by the Internet. Users in an information bubble do not check the information because they only follow the media that they like. It is essential to expand media education in general and audiovisual education in particular to combat fake news and deep fakes.

Fake news is the target of numerous academic studies. This paper analysed some of the most cited since 2016. There is a growing trend in the production of papers on the pandemic, and the most frequently used keywords are disinformation (6), fact-checking (5), fake news (5) and verification. The following table lists the most frequently used keywords (in alphabetical order) and serves as a guide for future research:

Social networks facilitate the dissemination of fake news, especially WhatsApp, Facebook and Twitter, in the form of doctored videos and audios, for which it is very difficult to determine the authorship. Telegram and TikTok are the latest channels used to circulate fake news in the wake of the coronavirus crisis. Social networks are becoming increasingly sophisticated, and the risk of misinformation is compounded by the use of artificial intelligence: ChatGPT is a new tool that can assist journalists, but it is also a threat if the information retrieved is not checked and sources are not cited, which undoubtedly encourages plagiarism.

Studies on fake news are accelerating and are becoming increasingly numerous, not only in the academic field, but also in the media. The articles analysed in this paper are a reference for further research, not only because of the authors, but also because of the bibliography to which they refer. They are works that need constant revision and updating, and the key words that should not be lost sight of, as they are the most frequently cited in these articles, are disinformation, fact-checking, fake news and verification.

Notes

¹ Only 27% of Spanish people trust the media, according to data from the latest Eurobarometer of January 2023, lower percentage than the European average (38%). (Madrid Press Association, 2023). https://www.apmadrid.es/solo-el-27-de-los-espanoles-declara-confiar-en-los-medios-de-comunicacion/.

² Trump, with the polls against him, starts circulating false stories of electoral fraud (El País, 2016) https://elpais.com/internacional/2016/10/17/estados_unidos/1476715533_289127.html?event_log=oklogin.

³ The work of the EU expert committee against fake news gets underway (El País, 2018). https://elpais.com/internacional/2018/01/15/actualidad/1516018218_836248.html.

⁴ Elections in the United States: 5 reasons for Donald Trump's (perhaps not so) surprising victory over Hillary Clinton (BBC, 2016). https://www.bbc.com/mundo/noticias-internacional-37917754.

⁵ Promoters of fake news and denialism weave a web of disinformation on Telegram (Servimedia, 2022). https://www.servimedia.es/noticias/promotores-bulos-negacionismos-tejen-clan-desinformacion-telegram/3518575.

⁶ The proposal to include media education in school curricula was introduced in Spanish legislation through the act to amend the child and youth protection system approved on 29 July 2015, but apart from a few initiatives, there have been few developments (Gabinete Comunicación y Educación, 2015) https://www.gabinetecomunicacionyeducacion.com/es/noticias/la-alfabetizacion-digital-y-mediatica-se-introduce-en-la-legislacion-espanola-de-proteccion.

⁷ A Guide to Combating Disinformation in the Post-Truth Era (IFJ, 2018) https://www.ifj.org/media-centre/reports/detail/que-son-las-fake-news-guia-para-combatir-la-desinformacion-en-la-era-de-la-posverdad/category/publications.

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