

Review

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Review

Fake News in Marketing

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Abstract: Fake news was conventionally assumed to mean fabricated information published in newspapers and other mass media. It was mostly done to increase the paper's sales and was unlikely to have long-term impacts on society. Fake news in marketing concerns intentionally delivering false or misleading information regarding a product or service to influence consumer behavior. Despite the severity of these impacts, we noted that there is very little scientific research on fake news in marketing and consumer behavior. This systematic literature review (LRSB) aims to bridge this knowledge gap by searching and analysing relevant publications on "fake news in marketing" and synthesising data from 117 relevant studies, providing a framework for marketers and business leaders to reduce the spread and impact of online misinformation. The main highlights identify that the implementation and use of social media, shaping a presence on the internet, diffusion, and consumption of fake news have become a serious challenge and a dominant problem in the marketing sector, especially with the growth of digital marketing. Strategically, fake news spread can be categorized into various types, and the use of these tactics can produce short-term benefits such as increased engagement and instant sales, but they can also have severe long-term costs such as reputational damage, loss of revenues and market share, and discouraged investors and shareholders.

Keywords: fake news; marketing; bibliometric literature review; LRSB

1. Introduction

Over the last decade, the popularity of social media platforms such as Facebook, Twitter, Instagram, and TikTok has rapidly increased. With the global internet penetration and affordability of personal devices such as smartphones, people have increasingly become dependent on social media for information and communication [1]. Although these platforms were initially created to connect people worldwide, their applications have expanded, with more people using them to access news and other crucial information. For instance, Alnazzawi et al. [2], found that 62% of U.S. adults get their news from social media. Similarly, Di Domenico et al. [3], indicate that most adults from countries such as Spain, the U.S., the U.S., and Italy receive their news from social media. With people spending more time online nowadays, these platforms have become critical for information dissemination. Marketing agencies and professionals have been exploring these developments by leveraging social media to conduct brands' marketing activities, such as publishing advertisements, providing customer services, and product development [4]. As a result, most companies have embraced digital marketing to promote products and brands to target audiences online, resulting in higher sales, a larger consumer base, and building loyalty and trust. Despite these benefits, the threat of fake news has become a challenge affecting the credibility and quality of online promotional content.

More people have become sceptical of brands' online presence due to the increased dissemination of fake or misleading brand or product information. Di Domenico and Visentin [5] (p.409), define fake news as "inaccurate, misleading, inappropriately attributed, or altogether

fabricated information." In the marketing context, companies use misleading adverts and false ideas on social media to appeal to target audiences. The spread of fake news and problematic information has created confusion and doubts among customers about their brand knowledge and experiences. These concerns can have severe impacts, such as damaged brand reputation, decreased engagement, loss of revenues, and legal consequences. An example of the effects of fake news is the 2016 Pepsi Co. event when its CEO was accused of telling Trump supporters to "take their business elsewhere" [5] (p.409). Although this information was false, the company's stock fell by 4% when the news spread online. New Balance is another company that suffered from online misinformation when a fake news spreader misquoted its spokesperson causing major boycotts and the burning of their shoes. These instances reflect the impact of fake news on brands. Despite the severity of these impacts, Di Domenico et al. [3], note that there is less empirical research on fake news in marketing and consumer behaviors. Thus, this systematic literature review aims to bridge this knowledge gap by synthesizing data from 117 relevant studies, providing a framework for marketers and business leaders to reduce the spread and impact of online misinformation.

2. Materials and Methods

This study employs a systematic bibliometric literature review (LRSB) methodology to search and analyze relevant studies on "fake news in marketing." According to Rojas-Sánchez et al. [6], this methodology is appropriate for collecting large volumes of data and understanding research trends in a particular field or sub-field. In addition, it provides a rigorous and structured method of searching and analyzing existing literature and supports critical evaluation and synthesis of retrieved publications. LRSB enables researchers to minimize sample selection bias through an exhaustive literature search of published and unpublished documents related to the study topic. Including a systematic review ensures that the methodology provides an audit trail of the researcher's decisions, processes, and conclusions, allowing readers to evaluate the report's quality and accuracy of the findings presented [7]. Thus, this methodological approach and the massive amount of information generated can be used to understand the field and guide marketing practitioners' strategy in fighting against fake news and its negative impacts.

The LRSB involves the screening and selection of information sources to ensure the validity and accuracy of the data presented, in a process consisting of 3 phases and 6 steps [8–10] (Table 1).

Fase Step Description Step 1 Setting up the research problem. Step 2 The process of looking for relevant literature. Exploration Step 3 Analyses of the chosen studies that are critical. Step 4 Combining data from various sources. Interpretation Step 5 Presenting conclusions and suggestions. Communication Step 6 Presenting the LRSB report.

Table 1. Process of systematic LRSB.

Source: adapted [8-10].

The first step in the methodology approach was to conduct a literature search on Scopus, the most significant peer-reviewed online database of scientific articles in the academic world. The use of Scopus alone is a result of the fact that it is the primary article database for academic journals/magazines, covering about 19,500 titles from more than 5,000 international publishers, including coverage of 16,500 peer-reviewed journals in the fields of scientific, technical, medical, and social sciences [8–10]. Consequently, giving a very relevant, scientific, and/or academic view of the research subjects. But we assume that the study's restriction of only considering the Scopus database, i.e., excluding other academic bases, is a limitation.

The Scopus database was used to search for relevant literature. The initial query used the keyword "fake news," generating 7,387 document results. However, most of these documents included sources from other dominant fields, such as journalism, psychology, and political sciences. Since this study focuses on the spread and impact of fake news in marketing, the researcher introduced the keyword "marketing" to reduce the search results to the most relevant. This limitation reduced the document results to 117, which were synthesized in the final reporting (N=117). Thematic analysis was then used to organize the information according to common patterns and themes as identified in the research, the document results in 117 scientific and/or academic documents, included until April 2023, 74 are Articles; 22 Conference Papers; 13 Book Series; and 8 Book (Table 2).

Table 2. Screening Methodology.

Database Scopus	ase Scopus Screening							
Meta-search	keyword: fake news	7,387						
Inclusion Criteria	keyword: fake news, marketing	117						
Screening	Published until April 2023	117						

Source: own elaboration.

3. Literature analysis: themes and trends

Portraying the peer-reviewed articles on the subject until 2023, in the period under review, 2022 was the year with the highest number of peer-reviewed articles on the subject, with 35 publications. Figure 1 analyses the peer-reviewed publications published for the until 2023. The publications were sorted out as follows: Lecture Notes In Computer Science Including Subseries Lecture Notes In Artificial Intelligence And Lecture Notes In Bioinformatics (5); Journal Of Product And Brand Management (4); Developments In Marketing Science Proceedings Of The Academy Of Marketing Science (3); with 2 publications (Eai Springer Innovations In Communication And Computing; Frontiers In Psychology; International Journal Of Internet Marketing And Advertising; Journal Of Consumer Marketing; Smart Innovation Systems And Technologies); and the rest with 1 publication. We can say that between 2005 and 2023 there was a growing interest in research on fake news in marketing.

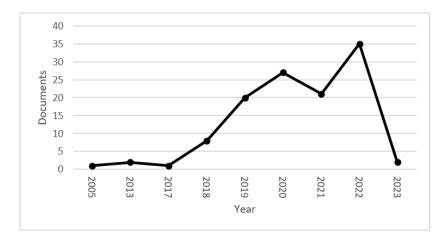


Figure 1. Documents by year Source: own elaboration.

In Table 1 we analyze the Scimago Journal & Country Rank (SJR), the best quartile and the H index by publication.

The Journal "The Lancet Oncology" revels to be the most ranked in the select journals, with 12,27 (SJR), Q1 and an H index of 382 value. Observing 103 classified journals, there are a total of 33 journals in Q1 representing 32.0%, 17 journals in Q2 representing 16.5%, 10 journals in Q3 representing 9.7%, 4 journals in Q4 representing 3.9%, and 39 journals without quartile attribution representing 37,9%.

As evident from Table 1, the majority of articles on fake news in marketing ranked on the Q1 best quartile index.

Title	SJR	Best Quartile	H index
The Lancet Oncology	12.27	Q1	382
IEEE Transactions On Neural Networks And Learning	4.22	01	221
Systems	4.22	Q1	221
Journal Of Business Ethics	2.44	Q1	208
IEEE Transactions On Knowledge And Data	2.43	Q1	183
Engineering	2.43	Qī	105
Business Horizons	2.38	Q1	97
Journal Of Business Research	2.32	Q1	217
International Journal Of Contemporary Hospitality	2.29	Q1	100
Management	2.2)	Qī	100
International Journal Of Physical Distribution And	1.95	Q1	117
Logistics Management	1.50	Q1	117
Journalism	1.80	Q1	69
International Journal Of Advertising	1.74	Q1	67
Journal Of The Association For Consumer Research	1.46	Q1	20
Information Systems Frontiers	1.43	Q1	73
Vaccine	1.39	Q1	191
Journal Of Advertising Research	1.33	Q1	90
Computer Communications	1.30	Q1	109
Frontiers In Public Health	1.30	Q1	64
Health Research Policy And Systems	1.29	Q1	55
Journal Of Macromarketing	1.14	Q2	58
Proceedings International Conference On Data	1.14	- / *	148
Engineering	1.11	,	110
International Conference On Information And	1.04	- / *	127
Knowledge Management Proceedings	1.01	,	
Scientific Reports	1.01	Q1	242
Journal Of Product And Brand Management	1.00	Q1	90
Spanish Journal Of Marketing Esic	0.98	Q2	18
IEEE Access	0.93	Q1	158
Online Social Networks And Media	0.93	Q1	15
Physica A Statistical Mechanics And Its Applications	0.89	Q1	170
IEEE Transactions On Engineering Management	0.88	Q1	97
Education For Information	0.87	Q1	20
Frontiers In Psychology	0.87	Q1	133
Central European Journal Of Operations Research	0.82	Q2	35
International Journal Of Environmental Research And	0.81	Q1	139
Public Health		~-	
International Journal Of Automation And Computing	0.80	Q2	41
Proceedings Of The Royal Society A Mathematical	0.79	Q1	137
Physical And Engineering Sciences		~	

Peer To Peer Networking And Applications	0.77	Q2	36
International Journal Of Communication	0.75	Q1	45
Journal Of Healthcare Engineering	0.68	Q2	37
Social Network Analysis And Mining	0.68	Q1	38
Computers Materials And Continua	0.67	Q2	44
International Journal Of Ambient Computing And	0.67	Q2	21
Intelligence	0.07	Q2	21
Journal Of Consumer Marketing	0.65	Q2	106
Online Information Review	0.63	Q1	64
Systems	0.62	Q2	22
European Physical Journal Plus	0.61	Q2	67
Communication Research And Practice	0.58	Q1	9
International Journal Of Market Research	0.57	Q2	57
Journal Of Islamic Marketing	0.55	Q2	43
Proceedings Of The International Joint Conference On	0.51	_ / *	82
Neural Networks	0.51	- / -	82
Reference And User Services Quarterly	0.49	Q2	35
Philosophy And Social Criticism	0.45	Q1	34
Journal Of Research In Marketing And	0.42	Q2	23
Entrepreneurship	0.42	Q2	23
Journal Of Information Communication And Ethics In	0.36	Q1	21
Society	0.30	Qī	21
Journal Of Creative Communications	0.31	Q2	13
Polis Russian Federation	0.31	Q2	8
International Journal Of Internet Marketing And	0.28	Q3	21
Advertising	0.20	QS	21
Prisma Social	0.24	Q3	9
ACM International Conference Proceeding Series	0.23	- / *	128
Advances In Intelligent Systems And Computing	0.22	Q4	48
Smart Innovation Systems And Technologies	0.22	Q3	27
Informacijos Mokslai	0.21	Q3	2
Quality Access To Success	0.21	Q3	22
Tydskrif Vir Geesteswetenskappe	0.21	Q3	6
Romanian Journal Of Communication And Public	0.19	Q3	5
Relations	0.19	Q5	3
Eai Springer Innovations In Communication And	0.18	04	14
Computing	0.16	Q4	14
Proceedings Of SPIE The International Society For	0.18	- / *	179
Optical Engineering	0.16	- /	1/9
Informacao E Sociedade	0.17	Q3	7
Informacios Tarsadalom	0.17	Q3	5
Journal Of Content Community And Communication	0.17	Q3	6
Revista Brasileira De Marketing	0.16	Q4	6

Airline Business	0.10	Q4	6
1st International Conference On Advances In Science			
Engineering And Robotics Technology 2019 Icasert	0.00	- / *	2
2019			
Ht 2019 Proceedings Of The 30th ACM Conference On	0.00	- / *	5
Hypertext And Social Media	0.00	,	3
International Journal Of Interactive Multimedia And	0.00	- / *	3
Artificial Intelligence	0.00	- /	3
International Symposium On Technology And Society	0.00	_ / *	15
Proceedings	0.00	- /	15
Library Philosophy And Practice	0.00	- / *	24
Opcion	0.00	- / *	20
Proceedings Of The 2013 IEEE ACM International			
Conference On Advances In Social Networks Analysis	0.00	- / *	29
And Mining Asonam 2013			
Proceedings Of The 2019 IEEE Communication	0.00	_ / *	3
Strategies In Digital Society Seminar Comsds 2019	0.00	- /	3
Proceedings Of The 5th European Conference On	0.00	- / *	4
Social Media Ecsm 2018	0.00	- /	4
Proceedings Of The Annual Hawaii International	0.00	- / *	92
Conference On System Sciences	0.00	- /	92
Proceedings Of The International Joint Conference On	0.00	_ / *	55
Autonomous Agents And Multiagent Systems Aamas	0.00	- /	33
SIGIR 2019 Proceedings Of The 42nd International			
ACM SIGIR Conference On Research And	0.00	- / *	23
Development In Information Retrieval			
2019 Global Conference For Advancement In	- / *	_ / *	- / *
Technology Gcat 2019	- /	- /	- /
2022 International Conference On 4th Industrial			
Revolution Based Technology And Practices Icfirtp	- / *	- / *	- / *
2022			
8th European Conference On Social Media Ecsm 2021	- / *	- / *	- / *
Attention Economy And How Media Works Simple	- / *	_ / *	- / *
Truths For Marketers	- /	- /	- /
Cryptocurrencies And Blockchain Technology	- / *	_ / *	- / *
Applications	- /	- /	- /
Data	- / *	- / *	- / *
Developments In Marketing Science Proceedings Of	- / *	_ / *	- / *
The Academy Of Marketing Science	- /	- /	- /
Dynamics Of Influencer Marketing A	- / *	- / *	- / *
Multidisciplinary Approach	- /	- /	- /
Dynamics Of Political Communication Media And	- / *	- / *	- / *
Politics In A Digital Age	- /	- /	- /

Esec Fse 2022 Proceedings Of The 30th ACM Joint			
Meeting European Software Engineering Conference	- / *	- / *	-/*
And Symposium On The Foundations Of Software	- /	- /	- /
Engineering			
Ethical Branding And Marketing Cases And Lessons	- / *	- / *	- / *
IEEE Open Journal Of The Computer Society	- / *	- / *	- / *
International Encyclopedia Of Education Fourth	- / *	- / *	- / *
Edition	- / "	- /	- /
Jornal Of Interactive Marketing	- / *	- / *	- / *
Lecture Notes In Computer Science Including			
Subseries Lecture Notes In Artificial Intelligence And	- / *	- / *	- / *
Lecture Notes In Bioinformatics			
Persuasion Social Influence And Compliance Gaining	- / *	- / *	- / *
Seventh Edition	- / "	- / -	- / '
Proceedings 2020 International Conference On			
Computational Science And Computational	- / *	- / *	- / *
Intelligence Csci 2020			
Proceedings 2022 IEEE 9th International Conference			
On Cyber Security And Cloud Computing And 2022			
IEEE 8th International Conference On Edge	- / *	- / *	- / *
Computing And Scalable Cloud Cscloud Edgecom			
2022			
Proceedings Of 2020 International Conference On			
Information Management And Technology Icimtech	- / *	- / *	- / *
2020			
Psychology Of Fake News Accepting Sharing And	- / *	- / *	_ / *
Correcting Misinformation	- / "	- / -	- / '
Springer Proceedings In Business And Economics	- / *	- / *	- / *
Sustainability Switzerland	- / *	- / *	- / *

Note: *data not available. Source: own elaboration.

The subject areas covered by the 117 scientific articles were: Computer Science (49); Business, Management and Accounting (39); Social Sciences (31); Engineering (21); Mathematics (17); Decision Sciences (10); Economics, Econometrics and Finance (9); Medicine (8); Arts and Humanities (7); Psychology (6); Physics and Astronomy (5); Materials Science (3); Biochemistry, Genetics and Molecular Biology (2); Energy (2); Environmental Science (2); Immunology and Microbiology (1); Multidisciplinary (1); and Veterinary (1).

The most quoted article was "Battling the Internet Water Army: Detection of Hidden Paid Posters" from Chen et al. with 117 quotes published in the Proceedings of the 2013 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, ASONAM 2013 with 0 (SJR) and with H index (29). This document thoroughly investigates behavioral pattern of online paid posters based on real-world tracking data. We designed and validated a new detection mechanism, using non-semantic analysis and semantic analysis, to identify potential paid posters online".

In Figure 2 we can analyze the evolution of citations of articles published between the 2013–2023 period. The number of citations shows a net growth with an R2 of 58% for the 2013–2023 period, with 2022 peaking at 381 citations.

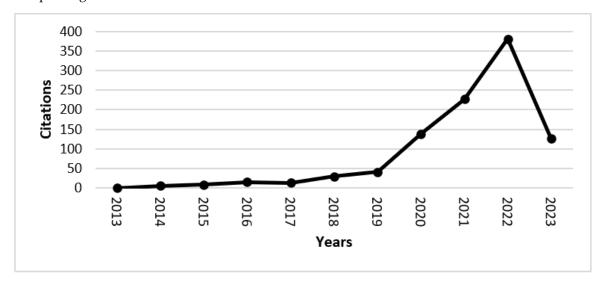
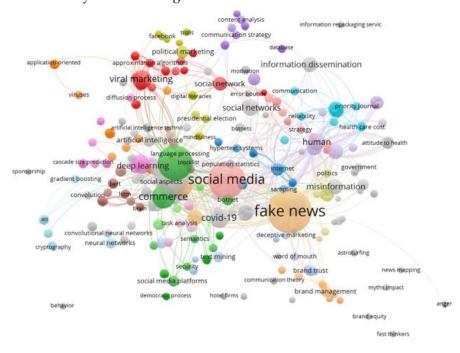


Figure 2. Evolution of citations between 2013–2023 period. Source: own elaboration.

The h-index was used to ascertain the productivity and impact of the published work, based on the largest number of articles included that had at least the same number of citations. Of the documents considered for the h-index, 15 have been cited at least 15 times.

In Appendix A, Table A1, citations of all scientific and/or academic documents from the period 2017 to April 2023, with a total of 984 citations, of the 117 documents 43 were not cited. Documents from 2013 to April 2023 were self-cited 79 times.

A bibliometric analysis was performed using the primary keywords in Figure 3 to analyze and identify indicators on the dynamics and evolution of scientific information. Using the scholarly program VOSviewer, the analysis of bibliometric research findings aims to pinpoint the key phrases that define research on sustainability as a marketing tactic.





The network of keywords that appear together or are linked in each scientific article can be clarified by analysing the linked keywords in Figure 4, which also allows for the identification of potential research trends. This graph more clearly demonstrates the number of network nodes, where the size of each node corresponds to the frequency of the keyword, i.e., how frequently the keyword appears. The co-occurrence of the keywords is indicated by the link between the nodes, and its thickness reveals the frequency of these co-occurrences. Since the keyword occurs more frequently in larger nodes, thicker links between nodes also increase the likelihood of co-occurrences between the

relationships between the topics (represented by the links) that manifest under the theme (represented by the nodes).

Vosviewer keyword development map results are divided into three groups. Cluster 1 is green and refers to social networking (online), cluster 2 is grey and refers to social media cluster 3 is red

keywords. Each colour represents a thematic cluster, where the nodes and links within the cluster can be used to explain the topic coverage of the theme (represented by the nodes) and the

In Figure 5, a profusion of networks bibliographic coupling of publications researchers.

and refers to viral marketing, finally cluster 4 is orange and refers to deep learning.

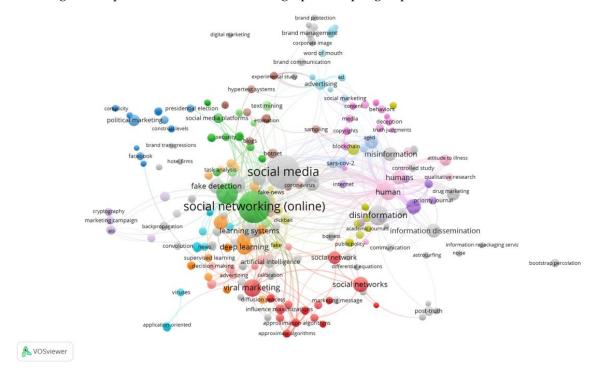


Figure 4. Network of Linked Keywords.

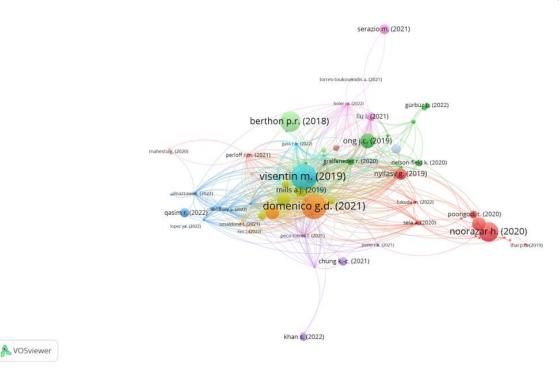


Figure 5. Networks bibliographic coupling.

4. Theoretical perspectives

Fake news in marketing involves deliberately distributing false or misleading information about a product, service, or company to manipulate consumer behavior. Most companies using social media to promote their products or services view fake news as a way of achieving a competitive advantage in the current competition-driven market [11]. As a result, this strategy has become increasingly common in the digital age, especially since social media and other platforms enable the quick and easy spreading of information. Marketing agencies and professionals leverage fake news through various strategies, including clickbait headlines, fabricated customer reviews, and misleading product claims [12,13]. While they may have positive returns, such as a short-term increase in sales, using falsified information can have devastating long-term impacts on both the business and customers consuming the falsified information [14]. As a result, individuals and organizations in the marketing sector must be vigilant in identifying and combating fake news in marketing.

4.1. Definition of Fake News

The term "fake news" was traditionally understood to mean falsified information published in newspapers. It was mainly done to increase the paper's sales and was unlikely to create long-lasting impacts on society [15]. However, its definition began to expand following the controversies associated with the 2016 U.S. presidential election and the 2016 "Brexit" referendum in the U.K. regarding its membership in the E.U. [16,17]. According to Brody [18], the expanded definition defines fake news as intentionally disseminating false information to manipulate the public for political gains or other purposes. However, Rahmanian [19], argues that this definition is ambiguous and 'too simplistic', noting that while some institutions deliberately spread fake news for selfish interests, in some cases, falsified information can be disseminated through accidental mistakes and negligent behaviors. While intentionality is a critical component of fake news dissemination, it does not entirely define the phenomena. Thus, Flostrand et al. [20], describe another approach where accurate information is used to mislead the public. For example, an organization or individual can convey information out of context, for instance, through misleading interpretations, to manipulate the public perception or emotions. Thus, fake news is a broad term that describes the intentional and unintentional dissemination of inaccurate information.

While the fake news concept is not new, the rapid development of the internet in the last decade has significantly accelerated the spread of falsified information. For instance, Martens et al. [4], indicated that the first instance of false news was reported in the 16th century. Social media and other online platforms allow people to share their ideas and knowledge, often including inaccurate information [21]. Platforms such as Facebook, Twitter, and YouTube have developed systems that fact-check content shared online and use censorship to prevent false information from being shared [21]. In this case, these platforms fix the problem by identifying the falsified information and deleting it or replacing it with facts. While these strategies provide potential solutions, the fake news problem remains a prevalent challenge worldwide since most shared misleading information goes unnoticed. This notion is evidenced in Pomerance et al. [22], research, which explains that fake news is more impactful since its more effective in deceiving. When individuals or companies use fake news to promote a specific agenda, product, or service, they often use the target audience's pain points or ideologies [23,24]. This makes it easy for the target audience to accept the misleading information as factual, which can hugely influence their decision-making. Therefore, despite the potential of approaches such as deleting, censoring, or replacing inaccurate information, more comprehensive studies are needed to explore alternative solutions. This can include social, legal, and structural reforms that can help combat this problem.

According to Google Trends, until the US presidential elections in November 2016 as a search term "fake news" suddenly increased very obviously (Figure 6) [4].

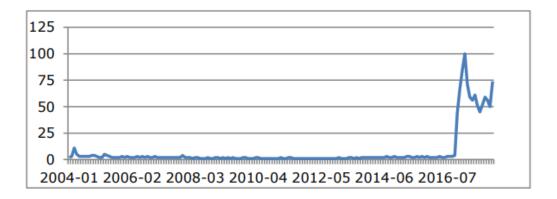


Figure 6. The prevalence of fake news in Google Trends, 2004-2018 interval [4] (p.8).

4.2. Types of Fake News

Different individuals and organizations spread fake information in various ways. For instance, while some disseminate entirely false information, others can misinterpret facts to convey misleading arguments [25]. For this case, it is crucial to explore the various types of fake news to understand how they are spread and their potential impacts.

4.2.1. Disinformation

Disinformation refers to deliberately disseminating misleading information intended to achieve specific intentions. Nyilasy [26], explains that disinformation occurs when distorted data is transmitted to deceive or manipulate an audience. It can be used for various purposes, including promoting a particular idea or belief, damaging an opponent's credibility or image, and for financial gain [27–29]. It often involves using social media, propaganda, and fake news websites to spread false information that causes confusion and mistrust, thus influencing public opinion.

4.2.2. Misinformation

Unlike disinformation, misinformation involves the unintentional spreading of inaccurate information. In most cases, it is shared because the person spreading it believes it to be accurate, thus occurring from cognitive bias, honest mistakes or carelessness [30]. While this fake news can result

nake critical

12

from an innocent error, it can cause significant harm, mainly if the audience uses it to make critical decisions [31]. For instance, a brand making decisions based on misinformation can experience severe consequences such as backlash, reduced sales and revenues, and damaged reputation.

4.2.3. Malinformation

This type of fake news involves using true information to cause harm or damage to a person, group, or organization. For instance, someone can share another person's private data with the public to undermine their credibility and cause public mistrust [32]. Sometimes, the information is taken out of context to cause confusion or misinterpretations that evoke certain negative perceptions or emotions against a person or a group [33,34]. This shows that, in some instances, genuine information can be potentially harmful depending on the context of its use and the spreader's intentions.

4.2.4. Commentaries and opinions

While commentaries and opinions are not necessarily fake news, they are based on the author's personal beliefs and experiences. This makes them subjective to their ideologies and knowledge, which can spread misinformation [35,36]. For example, commentaries and opinions are often polarized and sensational but not backed by evidence. With the freedom provided by the internet and social media, more people worldwide increasingly share their opinions on various topics of interest [37]. While the engagement and interactions generated in such posts can appeal to audiences involved, they can also disseminate inaccurate information, often based on one's thoughts, feelings, or experiences [38]. This subjectiveness differentiates them from hard news reporting and should be labelled as such.

4.2.5. Clickbait and conspiracy theories

Clickbait is the deliberate use of deceiving headlines to encourage visitors to click on a webpage or video. These sensational headlines do not regard the truth and primarily focus on attracting clicks and views [39,40]. On the other hand, conspiracy theories are used to explain complex events or phenomena with little or no evidence [41]. These types of fake news often cover sensational, controversial topics that people are interested in, which arouses their curiosity and encourages them to watch or read the shared content [42]. While some may contain little evidence, they can be used to manipulate people's emotions or thoughts by spreading unconfirmed information.

4.2.6. Rumors

Rumors are unverified information often shared through word of mouth or social media. While these can be harmless, they can cause panic or misinformation if the audience takes accurate information [43]. An example is the pandemic-related rumors and conspiracy theories that associate companies or certain influential investors as the causes of the healthcare crisis [22,44,45]. While some rumors can be false, others can be true but unsupported by any evidence.

4.2.7. Sensationalism

Sensationalism occurs when some aspects of a story or information are exaggerated to arouse the audience's emotions or attract attention. It involves using dramatic graphics, language, and stories that relate to people, making them connect with the narrative regardless of whether it's based on objective information [46]. Emotional appeal can cause people to trust the spread of information without verifying it, thus influencing their judgment and decision-making [47]. Thus, sensationalized news can contribute to spreading misinformation and disinformation by portraying misleading stories that do not reflect the facts.

4.3. The Prevalence of Fake News in Marketing

With the increased use of social media and the internet, fake news has become a significant problem across multiple sectors, such as politics, social media, and marketing. In marketing, fake news involves spreading false or misleading information to deceive customers for financial gain [48]. For example, a company can provide fake product information or fake reviews to encourage customers to buy. In other cases, companies use fake CSR initiatives to influence consumer brand perceptions and image, thus establishing trust and loyalty based on false information [49,50]. Fake news information in marketing is often disseminated through various channels, such as social media, search engine optimization, influencer marketing, email marketing, and other online marketing strategies.

The prevalence of fake news in marketing is a growing concern due to the potential harm it can cause to businesses, consumers, and the economy as a whole. For instance, using fake news in marketing can spread misinformation, consequently causing consumer confusion, mistrust, and, ultimately, a decrease in sales for businesses [51]. Moreover, fake news can have long-term consequences on a company's reputation, which can take years to rebuild [52]. While multiple types of fake news are used in marketing, clickbait remains the most common. Marketing agencies and marketers create clickbait content to attract clicks and drive traffic to a company's website [53,54]. The content is characterized by sensational or misleading headlines that lure users into clicking a link that leads them to content that does not match the title's promise. While this approach increases a website's traffic, it has more negative outcomes, including a high bounce rate, decreased engagement, and low website reputation.

Additionally, using false claims in advertising has become a frustrating issue. For example, a company may advertise a product with certain benefits or features that it does not have or use fake reviews to make it appear more appealing to consumers [55]. Although these practices can generate sales, they mislead consumers and damage the trust between them and the brand. This negative experience, in turn, reduces the probability of return purchases or establishing long-lasting relationships. Nyilasy [26] (p.336), indicates that companies use advertising lies because they pay, explaining that "it is more effective to deceive, to promise what cannot be fulfilled, to pull on strings that otherwise would be unresponsive." The deceptive marketing strategy involves disseminating promotional content and messaging based on what customers think customers want to hear or know instead of truthful information about their products and services [56,57]. One major way customers do this is through influencer marketing, where companies work with social media influencers to convey deceiving promotional messages [58]. In some cases, the influencers are paid to promote products without disclosing that they are paid, thus causing their followers to think they use those products [59,60]. Despite the belief that this strategy works, it poses various potential negative consequences. For instance, modern customers are more informed and armed with multiple resistance tactics. This means they can tell lies from the truth, affecting their trust in a brand or its products and services.

4.4. Causes of Fake News in Marketing

Companies use fake news in marketing for varying reasons. For example, stiff competition in the industry can prompt a brand to use fake advertising to appeal to a target market segment and gain competitive leverage [61]. In addition, the self-regulation expectations are giving companies to use unethical online promotional methods with minimal adverse consequences. This section of the literature review explores some of these causes identified in the research.

4.4.1. Profit-driven motives of businesses

Profit-driven motives refer to a company's financial goals and objectives. Most businesses prioritize making profits and engage in comprehensive strategies to maximize their revenue and minimize costs, including campaigns based on fake news [62]. For example, companies may create and spread fake news to advertise their products or services, increase sales, or gain an advantage

over competitors [63,64]. In addition, they sometimes exaggerate or falsify product information to make their products appear more appealing to consumers and manipulate them into buying, thus boosting sales. However, this approach can be problematic since it can harm the business's reputation and lead to consumer mistrust [65]. Once customers know that a company promotes fake news, they will be less likely to purchase or do business with them in future.

4.4.2. Lack of regulation in the advertising industry

While some regulations aim to prevent false advertising and misleading marketing practices, inadequate laws remain a prevalent challenge. Self-regulation is a significant aspect of the advertising industry, where companies regulate their content output. However, using fake news in marketing often falls in a grey area between editorial content and traditional advertising [66,67]. This is a major regulations challenge since it is difficult to determine which laws apply to monitoring fake news. In addition, rapid technological advancements have made it easy to spread fake news within a short period. On the contrary, it has been challenging for policymakers to match this pace, thus creating legal gaps in terms of regulating digital advertising strategies [68]. Moreover, the lack of central authority to oversee the advertising industry poses another inadequacy issue. Some companies may take advantage of this lack of oversight to create and spread fake news [69]. These instances can harm consumers with limited access to accurate information about products or services.

4.4.3. Confirmation bias among consumers

Confirmation bias is a cognitive phenomenon where individuals seek information confirming their beliefs and attitudes while ignoring information that contradicts them. As a result of this bias, some consumers may accept and spread fake news that confirms their existing beliefs or biases as accurate [57,70]. For example, a customer who likes a specific brand may believe fake news stories that promote the brand since they conform to their existing attitudes [71]. As a result, they are more likely to purchase from the brand and recommend it to other potential clients while ignoring other negative impacts the products may have [72,73]. This cognitive bias may be challenging to break due to the customers' strong beliefs and attitudes, thus further contributing to the problem.

4.4.4. Social media algorithms that prioritize engagement over the accuracy

Social media platforms such as Facebook, Instagram, and YouTube use complex algorithms to determine the content to show in a user's feed. The algorithms are designed to prioritize content that generates high engagement in the form of likes, comments, and shares since they drive user activities and increase revenues [74]. However, prioritizing sensational and controversial posts over accurate and reliable information that derives engagement can contribute to spreading fake news [75,76]. In addition, when the algorithms show users content that aligns with their interests and preferences, they continue to reinforce certain individual beliefs and attitudes that can be harmful [77]. Although these features make the platforms more appealing, they pose a major threat in spreading fake news, especially for consumers who depend on social media and the internet to access crucial information.

4.5. Technologies for Analyzing and Detecting Fake News in Marketing

The multiple ways in which fake news is disseminated in marketing make detection challenging. However, leveraging advanced technologies can assist in analyzing and detecting the publishing and spreading of this falsified information. The two primary technologies are Artificial Intelligence (A.I.) and Machine Learning.

4.5.1. Artificial Intelligence (A.I.)

The A.I. provides technologies that can be used to analyze large data amounts and identify patterns and anomalies related to the spread of fake news in marketing. These technologies include Natural Language Processing (NLP), a subset of A.I. used to analyze natural language [78]. The developers train these NLP algorithms to identify patterns in the language used in promotional

content to determine unverifiable or inaccurate information, such as exaggerated or falsified information in sensational headlines [79]. In addition, the NLP can help analyze the tone and sentiment of the disseminated marketing content, thus identifying any misleading news [80,81]. For example, in an advertisement where a product is said to "instantly cure all ailments," NLP algorithms can identify this as a false claim if the product can't achieve these promises.

Other technologies are source analysis and social media analysis. The source analysis can be used to analyze the source of information to determine its credibility. The A.I. detects the fakeness of any content by comparing the source against a database of credible sources [79]. It can also track an article's origin to determine if the publishing channel is a credible or a fake news website. On the other hand, the social media analysis of social media posts to identify fake and accurate news [82,83]. For example, A.I. algorithms can detect the use of bots in retweeting a tween disseminating information from a known fake news website.

4.5.2. Machine Learning

Machine learning involves training algorithms to detect fake news using large datasets. For instance, the algorithms can be trained to identify patterns in marketing language that may indicate fake news [84]. Machine learning facilitates detection using multiple techniques depending on the type of data used. For example, the labeled data supports supervised learning, unlabeled data supports unsupervised learning and partially labeled data for semi-supervised learning [85]. The detection is achieved using various innovations, such as classification models, trained using large datasets of known fake news to recognize common patterns and language falsified sensational or controversial news [86]. Once the model is adequately trained, it can be applied in new content analysis to differentiate fake from factual news.

Detecting fake news involves step-by-step procedures, from reviewing the dataset to training, testing, and classifying, as shown in Figure 7. Moreover, machine-learning clustering models are used for similar group articles based on the content published [87,88]. These clusters analyze content with identical language patterns and characteristics originating from the same source to determine if they are fake. Using classification and clustering models in machine learning can help detect fake news in marketing content, thus enabling organizations or social media platforms to delete the posts or correct the inaccurate information shared [88,89]. Therefore, exploring these advanced technologies and tools can help address the prevalent fake news problem observed in the marketing industry.

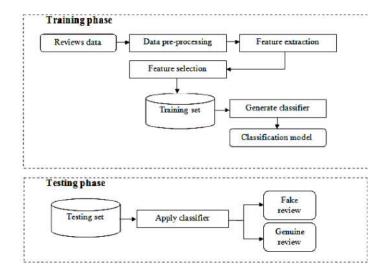


Figure 7. Fake new detection using machine learning [85].

4.6. The Impact of Fake News on Brand Equity, Consumer Trust and Experiences

The use of fake news in advertising can significantly impact It includes their emotional connection to the brand, trust, and overall experience, which determine their loyalty, satisfaction, and

brand recognition [90]. Fake news undermines customers' confidence in the brand, thus damaging its brand equity [91]. For instance, if consumers believe that a brand uses falsified information in its advertising, they may perceive it as untrustworthy, causing a decrease in brand equity [92]. In addition, fake news can negatively impact a brand's image, making retaining and attracting new customers more challenging. The impact of fake news on consumers' brand trust and experiences occurs when the advertised products and services do meet their expectations or fulfill the promises [93,94]. For instance, when brands use inaccurate information to promote specific products, there might be discrepancies between the promised value and the actual value the customers get after using a product [95]. As a result, these consumers will lose faith in the brand and its ability to provide accurate information and deliver its promises, thus reporting overall negative experiences. This can lead to a low probability of future purchases and affect the consumers' willingness to do business with the brand again.

Therefore, brands must ensure they provide accurate and trustworthy information to maintain customer relationships and enhance trust and experiences. While fake news may allow reaching new prospects due to high engagement, the potential negative consequences of losing loyal customers can severely impact its competitiveness and performance [89,96]. Winning customers back after losing faith in a brand can be challenging, primarily due to the stiff competition in local and international markets [97]. Therefore, measures to mitigate the spreading of fake news, such as verifying the sources of information before sharing it and swiftly correcting any misinformation that is discovered, should be embraced [98]. In addition, brands should prioritize building relationships with their customers based on trust and transparency, which can reduce the negative impact of fake news.

4.7. Impact of Fake News on Firm Performance

Fake news in marketing can have severe short-term and long-term impacts on a firm's performance. While the hype surrounding fake news can generate immediate customer engagement and sales, it also poses a long-term threat, especially when customers discover the information was falsified [99]. As a result, using fake news in marketing can impact a company's performance in various ways, such as declined stock price, loss of market share, reduced sales and revenues, and damaged reputation [100,101]. Investors make investment decisions based on accurate information on a company's performance, products, and services [102]. Thus, when investors become aware of a company's use of fake news in advertising or reporting, they may lose confidence in its financial stability and confidence. As a result, its stock value and investor relations with decline and cause a major decrease in the company's market capitalization [103]. This situation can trigger a chain of long-term implications, including the firm's inability to raise capital, invest in new projects, and attract and retain talent.

Additionally, fake marketing news can result in a loss of market share, which indicates the size of a market the company controls. When customers discover that a company lies in its advertising, they become wary of buying its associated products or services [104]. As a result, they may switch to a competitor brand, causing a decline in sales and market share. In most cases, marketing content aims to connect with consumers by demonstrating how a specific product or service solves their problems [105,106]. The content is based on understanding the customers' needs and expectations, thus making promises that directly speak to them, consequently building an emotional connection [107]. Therefore, discovering that the advertising used fake news to manipulate them into buying can trigger negative emotions that cause them to lose trust in the brand and purchase from competitors instead [108]. This shift causes a decline in demand and sales, further reducing the company's revenue, which affects its financial health and growth.

Besides the financial impact, fake news severely damages a company's reputation. The overall stakeholders' perception of a company is based on its actions, values, and performance [109]. The spread and use of fake news as a marketing tactic can negatively affect this perception since the brand may appear untrustworthy and deceptive. The damaged reputation can lead to a loss of trust from customers, employees, and other stakeholders due to its low credibility [110,111]. For example, it is hard for customers to trust and purchase from a brand when they question and doubt the accuracy

of its claims, reports, and other communications [112]. This is because the stakeholders are unsure whether the promoted products and services will meet their expectations or satisfy their needs (Cotacallapa et al., 2020) [113]. Thus, fake news and its consequent negative impacts on brand reputation can negatively impact customers purchasing decisions regardless of the quality of the products or services [114]. This can have long-term consequences since rebuilding the damaged reputation can be difficult, thus affecting the company's ability to attract and retain talent, customers, and business partners.

4.8. Ethical and Legal Implications of Fake News in Marketing

Companies are ethically responsible for protecting their customers by being truthful and transparent in their marketing communications. Thus, spreading fake news or failing to correct false information regarding their products or services is unethical and can damage the trust that customers and other stakeholders have in their brand [115,116]. For instance, Wisker [117], explains that marketers leverage consumers' emotions to improve the persuasion effect, meaning that the values shared in promotional content must align with individual values and beliefs. Therefore, using fake news in marketing can be perceived as a violation of these values, thus triggering negative emotions such as hate and anger [118,119]. Modern-day customers use social media to convey these negative emotions, causing major backlash towards a company and its products and services [120]. As a result, the unethical practices of using fake news to manipulate and deceive customers can cause reputational damage and loss of business, consequently affecting organizational growth and profitability.

Additionally, fake news in marketing can have legal consequences. For instance, various agencies in the U.S., such as the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA), enforce multiple consumer protection laws that make it illegal to engage in false advertising. As a result, companies engaging in these acts can be punished through hefty fines or legal action [121]. The Federal Trade Commission defines deceptive advertising as "any false or misleading description or representation of facts" about a product or service to increase demand and generate higher profits [122] (p.2). Companies do this by exaggerating the value or features of a product, pricing, warranties, availability, and servicing plans [123,124]. When these companies violate advertising laws, they can be held accountable. The consequences of legal liability can be severe, including financial penalties, legal action against key decision-makers, reputational damage, and loss of business [125]. Therefore, companies must proactively maintain truthful and accurate marketing claims to avoid legal and reputational consequences.

5. Conclusions

With the increased adoption and use of social media and the internet, spreading and consuming fake news have become a critical challenge. While initially, the term referred to the spread of falsified or inaccurate information by the media, fake news has become a prevalent problem in the marketing sector, especially with the rise of digital marketing. Companies use deceptive promotional content, ranging from inaccurate product descriptions to fake reviews and clickbait. Fake news spread can be categorized into various types: disinformation, misinformation, malinformation, commentaries, opinions, conspiracy theories, rumors, and sensationalism. While these tactics can generate short-term benefits such as increased engagement and immediate sales, they can have severe long-term consequences such as reputational damage, loss of revenues and market share, and demotivated investors and shareholders. Given that marketing targets customers' emotions to enhance the persuasion effect, using deceptive advertising can trigger negative emotions such as anger and hatred. Customers' discovery that the brand used advertising lies can likely cause lost faith and confidence in the brand, which translates to a lack of trust and severed loyalty. In addition, customers sharing their experience with a company's fake advertising can result in backlash and mass boycotts, destroying a company's reputation and threatening its financial performance.

Various factors often cause fake news in marketing. For instance, given the competitiveness in the business sector, most companies are engaging in extreme activities to win over customers and

increase sales. For example, some companies can collaborate with social media influencers to create promotional content conveying inaccurate product information, such as ingredients and benefits. In addition, inadequate advertising laws drive unethical promotional activities since companies do not suffer the consequences of deceiving their customers. Despite the presence of customer protection laws, rapid technological advancements and their integration into marketing practices continue to increase the gap between the spread of fake news and regulations. Another factor facilitating the spread and dominance of fake news is algorithms that favor engagement and revenues over accurate and reliable information. However, advanced A.I. and machine learning technologies can be used to detect and predict the accuracy of published news, thus determining if it's fake or not. Companies should adopt these technologies and other strategies, such as fact-checking, to ensure their branding and marketing content is truthful and accurate. A brand built on honesty and transparency can benefit from solid relationships with its stakeholders, including customers, shareholders, investors, and employees.

The limitation of this study is that it only considered the Scopus indexing database, leaving out other scientific and/or academic databases.

Fake news has become a pervasive problem in marketing, and as such, there are several potential lines of research that could be explored in the future. Some of these include: (i) understanding the psychological effects of fake news on consumers (research could explore how fake news affects consumers' attitudes, beliefs, and behaviors towards brands, products, and services); (ii) identifying the sources and motivations behind fake news (research could explore the sources and motivations behind the creation and dissemination of fake news in marketing); (iv) developing effective strategies to combat fake news (research could focus on developing effective strategies to prevent or combat the spread of fake news in marketing); (v) exploring the impact of social media on the spread of fake news in marketing); and, (v) analyzing the legal and ethical implications of fake news in marketing (research could explore the legal and ethical implications of fake news in marketing).

Author Contributions: For research articles with several authors, a short paragraph specifying their individual contributions must be provided. The following statements should be used "Conceptualization, J.S., A.R., C.G., and F.R.; methodology, J.S., A.R., C.G., and F.R.; software, J.S., A.R., C.G., and F.R.; validation, J.S., A.R., C.G., and F.R.; formal analysis, J.S., A.R., C.G., and F.R.; investigation, J.S., A.R., C.G., and F.R.; resources, J.S., A.R., C.G., and F.R.; writing—original draft preparation, J.S., A.R., C.G., and F.R.; writing—review and editing, J.S., A.R., C.G., and F.R.; visualization, J.S., A.R., C.G., and F.R.; supervision, J.S., A.R., C.G., and F.R.; project administration, J.S., A.R., C.G., and F.R.; funding acquisition, J.S., A.R., C.G., and F.R. All authors have read and agreed to the published version of the manuscript." Please turn to the CRediT taxonomy for the term explanation. Authorship must be limited to those who have contributed substantially to the work reported.

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Appendix A

Table A1. Overview of document citations period 2013 to 2023.

Documents				2015						2021	2022	2023	Total
Fixing fake news:		_515	_017	_010	_010	_51/	_010	_017		_021	_0		<u> </u>
Understanding and													
managing the marketer-	2022	-	-	-	-	-	-	-	-	-	1	1	2
CO													
Approximate Algorithms													
for Data-Driven Influence	2022	-	-	-	-	-	-	-	-	-	1	-	1
Limitation													
What to believe, whom to													
biame, and when to share:	2022	-	-	-	-	-	-	-	-	-	-	2	2
exploring													
Noise, Fake News, and													
Tenacious Bayesians	2022	-	-	-	-	-	-	-	-	-	1	1	2
The fake news effect: what													
does it mean for consume,	2022	_	_	_	_	_	_	_	_	_	1	1	2
behavio													
Using Social Media to													
Detect Fake News	2022	-	-	-	-	-	-	-	-	-	1	2	3
Information Related t													
Understanding Factors to										_		_	_
COVID-19 Vaccine	2022	-	-	-	-	-	-	-	-	1	2	2	5
Adoption in Gujara Artificial Intelligence Model													
to Predict the Virality of Pre		_	_	_	_	_	_	_	_	_	8	1	9
	2022										O	•	
MetaGeo: A General													
Framework for Social User	2022	-	-	-	-	-	-	-	-	-	1	1	2
Geolocation Ide													
Can you be Mindful? The													
Effectiveness of	2022	-	-	-	-	-	-	-	-	-	5	1	6
Mindfulness-Driven													
Estimating the Bot	2022										1		1
Population on Twitter via Random Walk Bas	2022	-	-	-	-	-	-	-	-	-	1	-	1
A Fine-Tuned BERT-Based													
Transfer Learning	2022	_	_	_	_	_	_	_	_	_	11	2	13
Approach forText													
Cryptonight mining													
algorithm with yac	2022	-	-	-	-	-	-	-	-	-	2	1	3
consensus for social m													
Institutional Advertising in													
the Face of COVID-19	2022	-	-	-	-	-	-	-	-	-	-	1	1
Hoaxes: St													
In These Uncertain limes: Fake News Amplifies the	2022	_	_							1	2	1	4
Desires to	2022	-	-	-	-	-	-	-	-	1	_	1	4
Desires to													

War on Diabetes in Singapore: a policy analysis Tourísts' information	2021	-	-	-	-	-	-	-	-	2	2	2	6
literacy self-efficacy: its role in th	2021	-	-	-	-	-	-	-	-	-	2	-	2
Launcher nodes for detecting efficient influencers insocial	2021	-	-	-	-	-	-	-	-	-	-	1	1
A survey for the application of blockchain technology in the		-	-	-	-	-	-	-	-	1	6	4	11
Evolutionary Computation in Social Propagation over Complex	2021	-	-	-	-	-	-	-	-	-	2	-	2
The dynamics of political communication: Media and politics	2021	-	-	-	-	-	-	-	-	-	4	-	4
Social media privacy management strategies: A SEM	2021	-	-	-	-	-	-	-	-	3	7	1	11
The other 'fake' news: Professional ideais and objectiv	2021	-	-	-	-	-	-	-	4	6	3	2	15
The Effects of Fake News on Consumers' Brand Trust: An Ex	2021	-	-	-	-	-	-	-	-	-	3	-	3
Fight Against Corona: Exploring Consumer-Brand Relationship	2021	-	-	-	-	-	-	-	-	-	1	-	1
Online influencers: Healthy food or fake news Accountability Journalism	2021	-	-	-	-	-	-	-	-	1	3	-	4
During the Emergence of COVID-19:	2021	-	-	-	-	-	-	-	-	-	1	-	1
focus on a 'few bad a	2021	-	-	-	-	-	-	-	-	1	-	-	1
Fake news, social media and marketing: A systematic review	2021	-	-	-	-	-	-	-	1	16	53	24	94
Interdisciplinary Lessons Learned While Researching Fake New	2020	-	-	-	-	-	-	-	-	1	6	-	7
IMPACT OF FAKE NEWS ANO MYTHS RELATED TO COVID-19	2020	-	-	-	-	-	-	-	-	-	3	1	4
Entrepreneurial marketing and digital political communicatio	2020	-	-	-	-	-	-	-	-	-	1	-	1
Marketing of identity politics in digital world (netnography	2020	-	-	-	-	-	-	-	-	1	1	-	2
~ ~ *													

													2
Fake news or true lies? Reflections about problematic conten	2020	-	-	-	-	-	-	-	1	9	10	7	27
DaleyKendal models in fake-news scenario	2020	-	-	-	-	-	-	-	1	1	3	-	5
Recent advances in opinion propagation dynamics: a 2020		-	-	-	-	-	-	-	4	18	29	5	56
[Why does fake news have space on social media? A discussion	2020	-	-	-	-	-	-	-	1	1	-	-	2
Fake news and brand management: a Delphi study of	2020	-	-	-	-	-	-	-	2	4	6	1	13
A false image of health: how fake news and pseudo- facts spre	2020	-	-	-	-	-	-	-	2	5	4	1	12
The truth (as I see it): philosophical considerations infl	2020	-	-	-	-	-	-	-	4	1	3	-	8
Investigating the emotional appeal of fake news using artif	2020	-	-	-	-	-	-	-	4	3	10	5	25
A trust model for spreading gossip insocial networks: A mui		-	-	-	-	-	-	-	1	-	3	-	4
Improving information spread by spreading groups	2020	-	-	-	-	-	-	-	1	-	3	-	4
What is new and truel about fake news?	2020	-	-	-	-	-	-	-	-	2	4	2	8
Blockchain in Social Networking The effect of fake news in	2020	-	-	-	-	-	-	-	-	3	4	2	9
marketing halal food: a moderatin	2020	-	-	-	-	-	-	-	-	1	8	1	10
The attention economy and how media works: Sim pie truths for	2020	-	-	-	-	-	-	-		3	2	1	7
Hepatitis E vaccine in China: Public health professional per	2019	-	-	-	-	-	-	1	1	3	-	-	5
Fraudulent News Detection using Machine Learning Approaches		-	-	-	-	-	-		1	2	-	-	3
Does Deceptive Marketing	2019	-	-	-	-	-	-	1	2	5	6	-	14
Information cascades modeling via deep multi- task learning	2019	-	-	-	-	-	-	-	3	10	12	2	27

Transformations of Professional Political Communications in	2019	-	-	-	-	-	-	1	-	1	1	-	3
Using Social Networks to Detect Malicious Bangla Text Conten	2019	-	-	-	_	-	-	-	4	4	7	-	15
Information diffusion prediction via recurrent	2019	-	-	-	-	-	-	-	11	22	35	10	78
cascades conv The relationship between fake news	2019	-	-	-	-	-	-	-	8	6	7	4	25
Fake news: When the dark side of persuasion takes	2019	-	-	-	-	-	-	-	4	7	5	4	20
over Fake News, Real Problems for Brands: The Impact of	2019	_	_	_	_	_	_	2	12	31	37	15	97
Content T [Fake news: The new power													
in the post-truth era, Noticias fa When Disinformation	2019	-	-	-	-	-	-				2		2
Studies Meets Production Studies: Social		-	-	-	-	-	-	-	8	9	13	2	32
Hop-based sketch for large- scale infiuence analysis [Presidential campaign in	2019	-	-	-	-	-	-	-	-	-	1	-	1
post-truth era: Innovative digital	2019	-	-	-	-	-	-	-	2	-	1	-	3
The Effectiveness, reasons and problems in current awareness	2019	-	-	-	-	-	-	-	1	1	1	-	3
Understanding Online Trust and Information Behavior Using De	2019	-	-	-	-	-	-	-	1	-	-	-	1
NLP based sentiment analysis forTwitter's	2019	-	-	-	-	-	-	-	1	1	-	-	2
opinion mining an [Death of the traditional newspaper: A strategic	2018	-	_	_	_	_	_	_	_	_	1	_	1
assess Oncology, "fake" news, and	l 2018	-	_	_	_	_	_	_	2	5	2	-	9
legal liability Brands, Truthiness and Post-Fact: Managing	2018	-	-	-	-	_	4	4	22	11	14	7	62
Brands in a Post Marketing libraries in an era of"Fake news"	2018	-	-	-	-	_		3	3	6	2	1	15
The ethics of psychometrics insocial media: A Rawlsian		-	-	_	_	_	-	-	1	_	-	-	1
appr													

Fake news and social media: The role of the receiver	2018	-	-	-	-	-	-	-	3	1	-	-	4
Disinformation, dystopia and post-reality insocial media: A	2018	-	-	-	-	-	-	-	-	2	-	-	2
Contrasting the spread of misinformation in online social ne	2017	-	-	-	-	1	3	7	9	1	4	1	26
Battling the Internet water army: Detection of hidden	2013	-	5	8	15	22	12	22	12	11	6	4	117
paid p	Total	0	5	8	15	23	19	41	137	224	381	127	984

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