

Fake news: a classification proposal and a future research agenda

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Abstract

Purpose – This paper aims to unify fragmented definitions of fake news and also present a comprehensive classification of the concept. Additionally, it provides an agenda for future marketing research based on the findings.

Design/methodology/approach – A review of 36 articles investigating fake news from 1990 to 2020 was done. In total, 615 papers were found, and the article pool was refined manually in two steps; first, articles were skimmed and scanned for nonrelated articles; second, the pool was refined based on the scope of the research.

Findings – The review resulted in a new definition and a collective classification of fake news. Also, the feature of each type of fake news, such as facticity, intention, harm and humor, is examined as well, and a definition for each type is presented.

Originality/value – This extensive study, to the best of the author's knowledge, for the first time, reviews major definitions and classification on fake news.

Keywords Literature review, Fake news, Fake news definition, Fake news classification, Misinformation, Disinformation, Systematic literature review, Fake news in marketing

Paper type Research paper

Noticias falsas: una propuesta de clasificación y una agenda de investigación futura

Resumen

Objetivo – Este artículo pretende unificar las definiciones fragmentadas de las noticias falsas y también presentar una clasificación exhaustiva del concepto. Además, ofrece una agenda para futuras investigaciones de marketing basada en los resultados.

Diseño – Se realizó una revisión de 36 artículos que investigaban las noticias falsas desde 1990 hasta 2020. Se encontraron 615 artículos, y el grupo de artículos se refinó manualmente en dos pasos, primero, se descremaron los artículos y se escanearon los artículos no relacionados, segundo, el grupo se refinó basado en el alcance de la investigación.

Resultados – La revisión dio como resultado una nueva definición y una clasificación colectiva de las noticias falsas. Además, se examinan las características de cada tipo de noticias falsas, como la facticidad, la intención, el daño y el humor, y se presenta una definición para cada tipo.



Originalidad – este amplio estudio revisa por primera vez las principales definiciones y la clasificación de las noticias falsas.

Palabras clave Revisión bibliográfica, Fake news, Definición de fake news, Clasificación de fake news, Tergiversación, Desinformación

Tipo de artículo Trabajo de investigación

虚假新闻：分类建议和未来研究议程

摘要

目的 – 本文旨在统一假新闻的零散定义, 并对假新闻的概念进行全面的分类。此外, 它还根据本文的研究结果为未来的营销研究提供了一个议程。

设计/方法/途径 – 对1990年至2020年期间调查假新闻的36篇文章进行了回顾。一共发现了615篇论文, 并分为两步对此文章库进行了人工提炼: 首先, 对文章进行略读和扫描以找出非相关文章, 其次, 根据研究范围对文章库进行了提炼。

研究结果 – 此次审查导致了对假新闻的新定义和集体分类。此外, 还分析了假新闻的真实性、意图、危害性、幽默性等各种类型的特征, 并给出了各种类型的定义。

原创性 – 此项涉及广泛假新闻内容的研究首次回顾了关于假新闻的主要定义和分类。

关键词 文献综述, 假新闻, 假新闻定义, 假新闻分类, 错误信息, 假信息

文章类型 研究型论文

1. Introduction

Some scholars believe we live in a post-truth era in which truth is not relevant anymore (Rochlin, 2017; Foroughi *et al.*, 2019). On the other hand, some other scholars provide evidence that the lines between news and fake news, fact and fiction and truth and lies are blurred (d'Ancona, 2017). However, regardless of what viewpoint we choose to take, the diminishing role of reality in everyday life is undeniable. Now, truth is what appeals the most pleasant to us (Foroughi *et al.*, 2019). Prior research showed that 75% of American adults, who were exposed to fake news, viewed the information as accurate and credible information (Silverman and Singer-Vine, 2016), and today individuals are more likely to share fake news than ever (Weidner *et al.*, 2019).

Contrary to the common belief, the concept of fake news is not new (Tandoc *et al.*, 2018). However, now fake news differs in its scope, speed, reach and impact (Allcott and Gentzkow, 2017). Once internet was recognized as a communicative medium, some intellectuals predicted the potential threat of fake news to the integrity of reality in the forthcoming future (Floridi, 1996), and now, due to online platforms (Bounegru *et al.*, 2017), fake news is a global threat (Howell, 2013). In 2013, World Economic Forum warned “digital wildfire” causing the “viral spread” of intentionally or unintentionally misinformation misleading the audience (World Economic Forum, 2014).

Additionally, the rise and availability of the World Wide Web as a vehicle for creating and sharing of content has aggravated the problem. Today, fake news is a byproduct of this proliferation (Allcott and Gentzkow, 2017; Lazer *et al.*, 2018). Additionally, due to the low entry barriers of internet, people and organizations have monetary incentives to produce fake news (Ormond *et al.*, 2016). There are ample evidence supporting the notion that many sources are systematically fueling the fake news industry (Allcott and Gentzkow, 2017). For example, in 2017, *NBC News* reported a shortage of bacon according to Ohio Pork Council, which of course was not true (NBC Universal News Group, 2017). Later, this bacon shortage proved to be a marketing gimmick to get viral (New York Times, 2017). The damage of fake news in marketing is not always intangible. For example, Pepsi Co. stock fell almost 4% during the 2016 American presidential election when it went viral that Pepsi chief executive officer Indra Nooyi, told Trump supporters to take their business elsewhere (Picchi, 2016) which was not true as well.

Since the fake news can be exchanged for money, it is extending into marketing domain and practice. Even some scholars suggest that to some extent, branding communication can be

considered as fake news (Berthon *et al.*, 2019). But despite this prevalence of fake news, still there is not a consensus on definition of fake news or even the term itself, and unlike the past, the concept no longer refers to the untruthful information (Molina *et al.*, 2021). Today, fake news is used by almost everyone to refer to any information not supporting their current beliefs or ideas (Vosoughi *et al.*, 2018).

With this definition ambiguity, the main aim of this paper is twofold. First, to investigate the definitions of fake news and to propose an encompassing definition. Second, identifying different types of fake news in the extant literature. Conceptualization of fake news will help marketing practitioners and researchers to better understand the concept and to distinguish different types of fake news which, for example, might be hurting their brand. Hence, this paper tries to review the most influential article on fake news, focusing on definitions and classifications. To this end, a literature review is conducted to find and analyze the articles. Finally, in light of the findings, some insights and a framework for future research are addressed. Hence, the following research questions are defined:

- RQ1.* What are the existing definitions of fake news? How these definitions can be consolidated?
- RQ2.* What are the existing typologies and categorizations of fake news? Can they be consolidated into one encompassing overarching categorization based on the extant literature?
- RQ3.* What are the effects of fake news on marketing, and what is the future of fake news and marketing?

2. Research design

Using Kitchenham's (2004) method, relevant articles are found. To answer the research questions, a literature review is designed which consists of two phases. In the first phase, a refined pool of fake news definition and classification is selected and then, by reviewing the selected pool; a new definition of fake news is suggested.

To select the relevant articles, preferred reporting items for systematic reviews and meta-analyses (PRISMA) method proposed by Moher *et al.* (2015) is used. This method covers all the necessary aspects of the relevant paper, including title, abstract, introduction, methods, results, discussion or even funding. To enrich the findings, literature in three decades (1990–2020) are aimed for. The research process is illustrated in Figure 1.

2.1 Literature review

The process of literature review applied in this paper is as follows:

- selecting digital databases;
- formulating research protocol;
- scoping the input, searching the selected databases and creating the initial pool; and
- refining the initial pool by applying the inclusion/exclusion criteria.

Nine primary sources of scientific database were selected: Jstore, Science Direct, Emerald, T&F, Wiley, Springer, Web of Science, SCOPUS and Sage. Considering the fact that fake news is gaining popularity in other strings of research such as journalism and communication, and also to enlarge the circle of the selected articles; grey databases such as

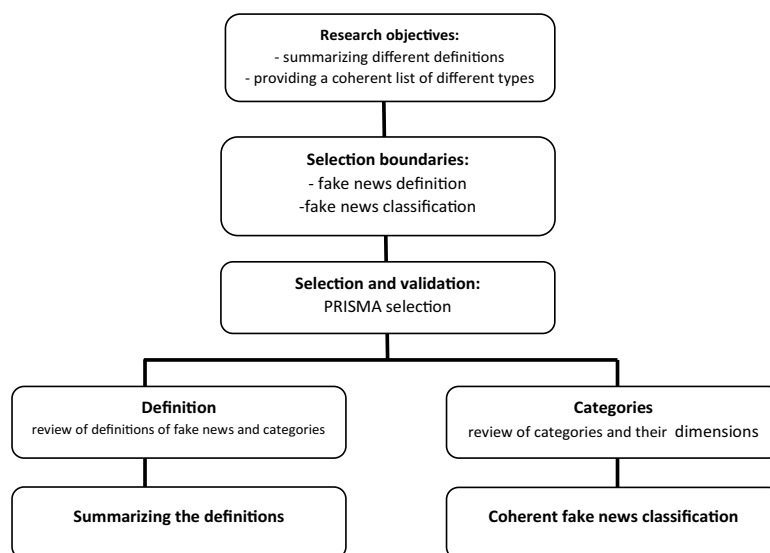


Figure 1.
Research process

Google Scholars were included as well. The protocol is designed based on the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) Statement (Moher *et al.*, 2015).

2.2 Inclusion and exclusion criteria

Formulating inclusion/exclusion criteria helps to create a balance between sensitivity (finding more resources) and specificity (being related to the topic). The crucial criteria for selecting articles are as follows:

- Fake news must be central to the article, and it must have a definition of fake news or a discussion on fake news features. For example, a political paper including fake news is not selected. Articles which do not meet this criterion are excluded.
- The selected articles must provide a classification of fake news. Although some overlaps might exist, the paper should propose a new category or add information on existing ones, otherwise are excluded. Articles from computational perspective are also excluded.

The search process yielded about 615 resources in fake news. To refine the article pool, a two-step approach was used. First articles were skimmed and scanned for non-fake news ones (following Palmatier *et al.*, 2018). Second, following Paul and Benito (2018), the pool was refined based on the scope of the research, and the initial suitable pool was selected. In the second step, first articles were narrowed down based on the keywords, and then, with the abovementioned criteria, final evaluation was done.

3. Result

3.1 Defining fake news

Although many people think that fake news simply means false information, determining what is false and what is not is a complex task. Sometimes fake news is defined as a form of

false news (Levy, 2017). This definition captures the essence of fake news which is untruthful information, but raises some ambiguity and is too simplistic. For example, based on this definition, false satirical stories and jokes published on websites such as Onion can be considered as fake news. There is a wide range of reasons for what we call “falsification of information” which results in fake news: from accidental mistakes to negligent behavior (Quandt *et al.*, 2019). Therefore, this definition cannot define the phenomena completely.

Another approach in defining fake news is taking intentionality into account. Intentionality and effort to mislead can be considered as the key elements in defining fake news (Wardle and Derakhshan, 2017). This definition correctly relates fake news to the intention to deceive but excludes unintentionality of some fake news. In this sense, fake news should not necessarily be false because true information might be used to mislead, which raises another ambiguity. With this definition in mind, a wide variety of untruthful information is considered fake news, from news satire to state propaganda and even advertisements (Tandoc *et al.*, 2018). For example, McGonagle (2017) defines fake news as:

Information that has been deliberately fabricated and disseminated with the intention to deceive and mislead others into believing falsehoods or doubting verifiable facts; it is disinformation that is presented as, or is likely to be perceived as, news.

On the other hand, some scholars hold the view that to be considered as fake news, information must be completely fabricated and fake (Montgomery and Gray, 2017; Allcott and Gentzkow, 2017, p. 213; Lazer *et al.*, 2018). For example, Pennycook *et al.* (2018, p. 1865) define fake news as “entirely fabricated and often partisan content that is presented as factual.” Some point out that it can be truthful (Fallis, 2015; Mukerji, 2018), and finally, some argue that it can be partially true but purposefully devised to mislead (Tandoc *et al.*, 2018; Quandt *et al.*, 2019). Wardle and Derakhshan (2017) define malinformation as an umbrella term to refer to this information that are true but are used to inflict harm. Hence, in the final approach, some scholars define fake news as lack of connection to the truth (Mukerji, 2018; Wardle and Derakhshan, 2017). In this sense, fake news might be a tool to capture the attention and impression and is not meant to be believed (Frankfurt, 2005). Clickbait is an example of this fake news (Tandoc *et al.*, 2018).

Different scholars have provided diverse definitions of fake news based on their theoretical background and practice. These definitions are summarized in Table 1. These different approaches in defining fake news highlight two important facets of fake news, facticity and intention to deceive (Tandoc *et al.*, 2018). To summarize, it can be concluded that a piece of information, to be considered fake, must be either untrue or intentionally devised to deceive.

3.2 Discussion on fake news definition

The problem of defining fake news stems from its inherent indefinable characteristics, which Funke (2017) calls “definitional ambiguity.” Some definitions of fake news define the concept as opposed to real. Some others relate it to flawed process of news defined as an unprofessional piece of information. In relation to reality, it is argued that fake news might not completely adhere to the truth or reality. But this proposition obviously has an inherent fundamental flaw. There is some fake news that are real, completely or partially. They are either real true information intended to harm or satirical information believed as true. In that case, a piece of news might be fake news for a person and a piece of true journalistic news for another person. It is all relational to the person. Therefore, a definition irrespective of objective reality must be proposed.

Definition of fake news	Context, topic, references
Ideological or political propaganda circulated online or offline to gain preset objectives catered to masses or a target group of people	Cyber defense, fake news evaluation, (Sample <i>et al.</i> , 2018); Digital journalism, conceptualization (Mourão and Robertson, 2019) Marketing, branding (Berthon <i>et al.</i> , 2019)
Some brands communication could be considered as fake news which are purposely designed to obfuscate or mislead the consumer	
News articles that are intentionally and verifiably false, and could mislead readers but need more elaboration <i>Politics</i>	Democracy, journalism (Buschman, 2019); information management, journalism (Montgomery and Gray, 2017)
Fabricated information that mimics news media content in form but not in organizational process or intent designed to mislead or gain profit online or offline	Digital journalism, conceptualization (Lazer <i>et al.</i> , 2018); Consumer research, social media (Chen and Cheng, 2020); Marketing, corporations and branding (Weidner <i>et al.</i> , 2019); Politics, human rights (McGonagle, 2017); academia, college students, (Leeder, 2019); information management, journalism (Finneman and Thomas, 2018); conceptualization (Molina <i>et al.</i> , 2021; Zhou and Zafarani, 2020)
Fake news arises whenever the process of information is defective and/or disguised as true online or offline	Internet and mass media, internet as a platform (Floridi, 1996); Politics, social media (Shin <i>et al.</i> , 2018); Social media, sharing behavior (Talwar <i>et al.</i> , 2019) Social media, classification algorithm (Wang <i>et al.</i> , 2019)
Misinformation that involves information that is inadvertently false and is shared without intent to cause harm, while disinformation involves false information knowingly being created and shared to cause harm	
A subset of false information and is False information spread under the guise of being authentic news usually spread through news outlets or internet with an intention to gain politically or financially, increase readership, biased public opinion	Information management, internet and social media (Meel and Vishwakarma, 2019); Politics, Western democracies (Humprecht, 2019)
Fake quoting is a form of fake news, or miss-quoting is a process in which a text is taken out of context and deviates the audience from the original topic	Politics; social media (Kirner-Ludwig, 2019)
All false information published and spread through internet which are aimed at intentional misleading, deceiving to gain monetary, political or other benefits	Social media, conceptualization (Zhang and Ghorbani, 2020)
The phenomenon of information exchange between an actor and acted upon that primarily attempts to invalidate generally-accepted conceptions of truth for the purpose of altering established power structures	Academia, faculty and academic staff (Weiss <i>et al.</i> , 2020)
Fake news is understood as false and often sensational information disseminated under the guise of news designed to be widely re-transmitted and to deceive at least some of its audience	Information management, conceptualization, (Aleinikov <i>et al.</i> , 2019); Epistemology, conceptualization, (Blake-Turner, 2020; Rose, 2020)
fake news is a form of disinformation marked by high levels of intention to deceive and low levels of facticity that approximate the look and feel of real news	Journalism, conceptualization, (Tandoc <i>et al.</i> , 2019, 2018)

Table 1.
Fake news
definitions in
different contexts

Additionally, fake news is defined as a piece of information that does not adhere to the full process of professional journalism. This definition is problematic as well. A paid advertisement disguised as an article is a piece of information that completely adheres to the process of journalism and at the same time, it might be completely false and misleading. Therefore, besides the relation to the journalistic process, we need other criteria to define fake news.

Defining fake news could be succinctly fit into three approach. The first approach argues that defective information process results in fake news. In this regard, any information that have not been put through a complete process of journalism could be considered as fake news and mislead the audience (Finneman and Thomas, 2018). With this feature in mind, even state propaganda or many biased one-sided marketing communications can be classified as fake news (e.g. false stories that appear to be news, Molina *et al.*, 2021; fabricated news purporting to be true, Shin *et al.*, 2018).

The second approach highlights the malicious intention of fake news, which is to benefit a certain group moneywise, ideologically or politically. These types of fake news are not as subtle as state propaganda and are easier to detect. Clickbait and partisan fake news fit this category. Scholars have detected many types such as false brand and marketing communication (Berthon *et al.*, 2019; Chen and Cheng, 2020), intention to deceive by non-media actors (Finneman and Thomas, 2018) and media actors (Kirner-Ludwig, 2020; Leeder, 2019) and false information to gain politically or financially, increase readership, biased public opinion (Meel and Vishwakarma, 2019; Zhang and Ghorbani, 2020) to name a few. Final approach is to consider the main characteristics of digital communication which enabled the rapid, vast and untrue information into our daily lives. Digital platforms create fake news as byproduct of communications at a horrendous volume with real time dissemination, which is evident in information saturation and new formats of information (Weidner *et al.*, 2019).

Fake news, in the majority of the known types, has two core characteristics: untruthfulness and intention to deceive. Although the degree of truth differs in different types of fake news and not all types intend to deceive, however, the outcome is manipulation. In fact, in every type, fake news is disguised as authentic news which might be believed by the audience. On the other hand, the motivation for fake news is twofold: monetary or political benefit. It can be concluded that, whatever the motivations are, they are intended to achieve a predefined goal. Hence, the following suggestion and proposition is put forward:

Fake news, irrespective of the objective reality, is a designed pseudo-true piece of information created in order to achieve specific benefits through manipulating the beliefs of the targeted audience.

3.3 Fake news classification

Synthesizing the classification presented in the selected articles was one the main objective of this paper. Considering the difficulty in defining fake news, a single classification arranged in categories and subcategories might provide a holistic view. Although the number of fake news types might seem excessive, the purpose of this study is to gather all unique types of fake news.

3.3.1 Disinformation. Disinformation is a deceptive piece of information which is purposefully misleading with predefined intentions (Meel and Vishwakarma, 2019; Shin *et al.*, 2018; Weiss *et al.*, 2020). Some scholars believe that instead of generating false or alternative beliefs, it is meant to mask some situation or information (Fallis, 2015). Some

others believe that disinformation is distorted data meant to deceive and manipulate the audience (Buschman, 2019). The purpose of disinformation is to promote an idea or belief, financial gain or undermining an opponent image or credibility (Meel and Vishwakarma, 2019; Weiss *et al.*, 2020).

3.3.2 Misinformation. Misinformation is an uncertain and vague piece of information which, depending on the context, unintentionally might be not completely true or true enough (Cooke, 2017). Misinformation might be the result of honest mistake, carelessness or cognitive bias (Meel and Vishwakarma, 2019). Compared to disinformation, it is less harmful and might lead to less damage (Meel and Vishwakarma, 2019).

3.3.3 Malinformation. This fake news is defined as genuine information shared to cause harm, often by moving information designed to stay private into the public sphere (Wardle and Derakhshan, 2017). Therefore, when true information is used out of the context which it meant to be, true information might function as a potentially harmful information.

3.3.4 Satire, humorous fakes, parody. Satire or humorous content uses elements of humor to present the information to the audience. They often mimic typical mainstream journalism but heavily rely on humor to achieve wide audience and distribution (Rubin *et al.*, 2015) and also are meant to be perceived as unrealistic (Frank, 2015). Some scholars, like Tandoc *et al.* (2018), argue that satire is not false information, and it is considered as fake news due to its format. Rubin *et al.* (2015) add that if readers are aware of the humorous intent, it may no longer be seen as fake news. Some scholars even propose that satire, even though the motivation is fun but sometimes ending up harmful, should be ruled out as a type of fake news (Allcott and Gentzkow, 2017).

Parody shares many similarities such as humorous nature to draw attention and presentation format that mimics the mainstream news media with satire (Tandoc *et al.*, 2018). But the difference lies in the use of nonfactual information to highlight the current issues. In some cases, the parody is too subtle to be identified as parody and not fake news (Tandoc *et al.*, 2018).

3.3.5 Fabricated news. Fabricated news is a piece of information that have no factual basis but is published in the style of a credible news article to create legitimacy. Unlike parody, there is no implicit understanding between the author and the audience that the information is not factual (Tandoc *et al.*, 2018). In other words, this type of fake news is an inaccurate piece of information (Quandt *et al.*, 2019) and might be aimed to gain monetary or political advantage (Tandoc *et al.*, 2018). Additionally, fabricated information mimic news media content in the form but not in the organizational process (Lazer *et al.*, 2018).

This type of fake news has high intention to mislead and low or no facticity at all (Chen and Cheng, 2020). Yellow journalism and many websites use fabricated news such as eye-catching headlines, sensational information and scandals, like Pope Francis endorsed Donald Trump (Allcott and Gentzkow, 2017), to increase Web traffic for profit (Rubin *et al.*, 2015).

3.3.6 Propaganda, partisan or polarized fake news, political kayfabe. Propaganda are news stories that are created by political entities to influence public sphere (Tandoc *et al.*, 2018). Weiss *et al.* (2020) argue that propaganda presents only a part of the fact to distort the reality to prove the conclusions that could not be drawn from the complete truth. Meel and Vishwakarma (2019) define propaganda as “Unfairly prejudiced and deceptive information spread in targeted communities according to a predefined strategy to promote a particular viewpoint or political agenda” which is aimed to gain political or financial profit. Tandoc *et al.* (2018) suggest that as some motives may overlap, there is a blurry line between propaganda and advertisement.

Partisan or polarized fake news, a relatively similar fake news to propaganda, is not completely untrue or false, but it fits well in some particular ideology (Molina *et al.*, 2021). Though the objectivity and truth are not the goal of partisan news, authors might assert the truth that might justify their position. A common feature of these type of fake news is using highly emotional contents, which lack the evidence and are based on the appeal to the emotions of the audience (Allcott and Gentzkow, 2017). The main difference is that propaganda is created by political or ideological entities, and polarized content might be created by other beneficiaries or even individuals.

“Make believe” is another term referring to this type of fake news (Weiss *et al.*, 2020). This term explains a situation in which a fake news provides the reader with an excuse for catharsis, a convenient chance to vent frustrations about political adversaries and exult in their enemies’ defeats is believed. This fake news explains why President Trump routinely spreads fake news. As of October 2019, President Trump has 13,435 misleading claims, which are accepted and circulated by his supporters (Washington Post, 2021).

3.3.7 *Hidden advertising, advertisement, public relations.* Advertisements that are disguised as genuine news or information might be considered as fake news (Tandoc *et al.*, 2018). Tandoc explains that in some cases, advertisement and news are combined through a format of advertisement, which he calls “native advertisement.” At first glance seems, this information a legit news, but eventually it is understood that it is an advertisement and includes one-sided claims and information. *The New York Times’* website on women’s incarceration which was a promotion for *Orange is the New Black* television series is a goof example of this category (Tandoc *et al.*, 2018).

3.3.8 *False news.* Information that is intentionally false and often are malicious information propagating conspiracy theories (Molina *et al.*, 2021) or false stories and conspiracy theories presented as news (McGonagle, 2017).

3.3.9 *Misreporting.* It is defined as unintentional false reporting from professional news media. Even though the intention is not to deceive or harm, the results may be harmful (Molina *et al.*, 2021). In this sense, an article which some of its quotes are not verified, although it structurally seems fine with adequate and credible sources, is classified as misreport. For example, an article on *New York Times* about the new tax code in 2018 reported an increase by approximately 3,000 dollars; when in reality, it would have decreased by 43 dollars (Molina *et al.*, 2021).

3.3.10 *Commentary.* Commentary is a piece of written opinion on mainstream media which might be confused with hard news. Interpreting commentary requires a distinction between assertion and hard news. Hard news is backed by evidence, while commentary is assertion without any evidence and is usually polarized and sensational (Molina *et al.*, 2021). An article written in *The New York Times* about Ilhan Omar which used opinion linguistic markers such as, should and must, might be marked as an opinion piece.

3.3.11 *Persuasive information.* There are two types of persuasive information and though they are both persuasive in nature, have some distinctions. The first type is native advertisement, which is promotional material masked as news or information (Molina *et al.*, 2021). Molina *et al.* (2021) explains that due to the nature of the platforms that this type of information is shared, the audience might treat it as true even when it is clearly labeled as promotional material. A study showed that 80% of people are unable to distinguish between sponsored posts and news, even when labeled as sponsored (Stanford History Education Group, 2016).

The second type is promotional content, which can be political or nonpolitical (Molina *et al.*, 2021). This information could be from official sources or unofficial ones. Although this

type is not fake by nature, because it might be one-sided and biased, it should not be considered as hard objective news.

3.3.12 Citizen journalism. Today, social media and other platforms enable citizens to collaborate and quench their tendency to disclose information and need for popularity (Christofides *et al.*, 2009). Now news and information are not limited to professionals and news organizations. People also are able to generate news content as well. This information and news are not verified and are disseminated by individuals (Molina *et al.*, 2021). First type of citizen journalism fake news are blogs, opinion pieces and such contents created by citizens which are emotionally charged and do not adhere to the journalistic norms.

Another type of citizen journalism is news organizations providing a platform for citizens to share their stories. Molina *et al.* (2021) uses CNN's iReport as an example and argues that these platforms neglect the professionalism in favor of first-hand, eyewitness and usually unverified information from participant citizens.

3.3.13 Clickbait. Clickbait is a deliberate use of misleading headlines to encourage visitors to click on a particular Webpage or link (Meel and Vishwakarma, 2019). Many of these clicks move the reader to a commercial website instead of news site (Tandoc *et al.*, 2018). This type of fake news relies on the urge of people to know about the sensational and controversial topics, attracts people and misleads them for monetary purposes. Earning advertisement money through viewership or phishing are among the main purposes of this type of fake news (Meel and Vishwakarma, 2019). Wealthy Middle Eastern man and the police incident on the Facebook in 2017 can be considered as clickbait (Tandoc *et al.*, 2018).

3.3.14 Conspiracy theory. Conspiracy theory is a simple explanation of a complicated incident that reveals the hidden roles of sinister and powerful actors (Meel and Vishwakarma, 2019). This type of fake news has no evidence and is extremely harmful to people and society. Conspiracy theory is usually politically or ideologically motivated. During the COVID-19 pandemic, there were rumors 5G technology spreads coronavirus (Ahmed *et al.*, 2020).

3.3.15 Pseudoscience. Pseudoscience is an incorrect and untruthful information which is intended to deceive and manipulate the target audience, and there might be some true information or the news might be based on true information (Hansson, 2017). Pseudoscience provides no evidence and contradicts established science in many ways. For example, Donald Trump suggested injecting disinfectant cures COVID-19 (BBC, 2020).

3.3.16 Hoax/large-scale hoaxes. Hoax is a false humorous story, prank or malicious deception which is used to masquerade as the truth which convince the audience to believe in falsehood instead of truth and reality (Meel and Vishwakarma, 2019; Bondielli and Marcelloni, 2019). Pizzagate (Tandoc *et al.*, 2018) is a well-known example of hoax. Hoaxes are usually organized in a larger scale than simple news articles and are aimed to harm public figures or ideas (Bondielli and Marcelloni, 2019). Rubin (2015) distinguishes between hoaxes and pranks and argues that hoaxes are large scale and complex fabrications and go beyond the simple playfulness of pranks and may cause serious harm and be viewed as hard news by a news organization.

3.3.17 Opinion spam. Opinion spam is a fake or intentionally biased comment or review about a product or service which is untruthful and tends to mislead the costumers (Meel and Vishwakarma, 2019).

3.3.18 Rumor. Rumor is a piece of information that is not confirmed or verified, which might be true even when it is not supported by solid evidence (Shin *et al.*, 2018). A rumor might resurface again and again overtime, and each time it is more intensified. They add that in the political climate, the old rumors resurface again as news of information. Obama's

daughter traveling to Mexico with secret agents can be classified as rumor fake news (Shin *et al.*, 2018).

3.3.19 Trolling. Trolling is the act of posting offensive messages to online communities to stir conflict and hostility (Shin *et al.*, 2018). Trolling is deliberate to provoke emotional responses. Shin *et al.* (2018) distinguish between trolling and fake news, because trolling is a post in the form of assertion or opinion, but fake news is in a form of news. Also, they add that fake news is essentially untrue, but troll posts are not necessarily false.

3.3.20 Hacking. This type of fake news might be either misinformation or disinformation resulting a great harm to a person or a party (Weiss *et al.*, 2020). During the presidential election in America and France, hackers leaked thousands of emails as misinformation. In the American presidential election, hackers tied to Russia hacked Democratic National Committee shared via Wikileaks.

3.3.21 Disliked news stories. Aleinikov *et al.* (2019) are the only source that classifies news that are disliked as a type of fake news. President Trump is the best embodiment of the act of calling undesirable news fake news.

3.3.22 Photo manipulation. It is the manipulation of real images or videos to create a false news, which is increasingly common due to the new technologies. Photo misappropriation is as another type of this fake news. In this type, a photo, out of its context, intentionally or unintentionally is attributed to an unrelated story (Tandoc *et al.*, 2018). Manipulated photos that were circulated on Twitter during Hurricane Sandy in 2012 (Tandoc *et al.*, 2018) are a good example of this fake news.

3.3.23 Cherry-picking. It is defined as an act in which an individual or news organization make statements to support their position and in doing so, they cherry-pick the factual basis for their conclusion (Zhou and Zafarani, 2020). These facts are selected to prove a misleading argument that is not reasonable. Even though they are not fake, because it is supported by the selected data, it is misleading (Asudeh *et al.*, 2020).

3.3.24 Sensationalism. It is a type of fake news which aims to arouse audience emotions and/or attracts attention by exaggerating on dramatic elements of the information (Kilgo and Sinta, 2016). The trigger in emotions (Kilgo *et al.*, 2018) might be achieved by using intensified or dramatic language, graphic images or narratives that make stories to be perceived more extraordinary or personally relevant (Molek-Kozakowska, 2013). Sensationalism also simplifies and trivializes a complex topic and promotes shock value (Kilgo *et al.*, 2018). "Poor journalism" term is sometimes used to refer to this type of fake news (Nielsen and Graves, 2019). Crime, disasters, sex and celebrity (Molek-Kozakowska, 2013) are among the sensationalism topics.

3.4 Discussion on fake news classification

In this paper, 25 types of fake news were identified. These different types are classified based on the fake news spectrum proposed by what Wardle and Derakhshan (2017). Also, to enrich the proposed classification, some dimensions were added to the classification. One of the most important characteristics of fake news is motivation. Therefore, it was tried to identify different motivation in the selected articles as well as intention to deceive and the degree of harm. In some cases, such as commentary or misreporting, the motivations are either ambiguous or undefined (Molina *et al.*, 2021). In general, motivation can be put into three main categories: unintended fake news, ideological fake news and for-profit fake news.

Some fake news is not meant to harm, though they are aimed to deceive or might be deceitful unintentionally. For example, satire and humor are not to cause any harm but hoax with low truthfulness, intends to deceive. Additionally, because satire and humorous fake are the most prevalent ones, in some cases, humor might function as fake news (Table 2).

#	Type of fake news	Motivations	Truth	Intention to deceive	harm	Humor
<i>1 – Satire or parody: no intention – cause harm but has potential – fool</i>						
1	Satire/humorous fakes/ Parody	Fun, publicity	0–3	0	1	3
2	Hoax/large scale hoax	Fun	0–1	2–3	2–3	3
<i>2 – False connection: headline, captions or visuals usually do not support the content</i>						
3	clickbait	Monetary gain	1	3	3	Possible
4	Sensationalism	Engagement, trigger emotional reaction	2–3	1	1	1
<i>3 – Misleading content: misleading use of information – frame and issue or individual</i>						
5	Rumor	Variable/political	unknown	3	3	0
6	Hacking	Political gain	0–1	3	3	0
7	Misinformation	Honest mistake, carelessness or cognitive bias	0	0	1–2	0
8	Pseudoscience	Manipulation	1	3	3	0
9	Conspiracy theory	Political	0–1	3	3	0
<i>4 – False content: when genuine content is shared with false contextual information</i>						
10	Misreporting	Variable	3	0	Variable	0
11	Commentary	Variable	0–1	0–1	Variable	0
12	Cherry-picking	Mislead	Commonly true	2	2	0
13	Malinformation	Harm	True	3	3	0
14	hidden advertising/ advertisement/PR	Viewership, publicity, financial gain	0–1	2	1–2	0
15	Persuasive information	Political or nonpolitical promotion	0–1	0–1	1	0
<i>6 – Manipulated content: when genuine information or imagery is manipulated – deceive</i>						
16	Citizen journalism	Variable	2–1	2	2	3
17	Photo Manipulation	Mislead	0–1	2	2	0
<i>7 – Fabricated content: content is completely false design – deceive and do harm</i>						
18	Propaganda partisan/ polarized content/ disinformation/political kayfabe	Political, ideological or financial profit or gain	0	3	3	0
19	Trolling	Create hostility and conflicts	0–1	3	3	3
20	Fabricated news	Viewership, publicity, financial gain	0–1	3	3	0
21	Opinion spam	Mislead the costumers	0	3	3	0
22	False news	Mislead the, manipulation	3	3	3	0

Notes: Intensity values of the variables 0 none; 1: low, 2; medium and 3: high

Table 2.
Definition and
features of different
types of fake news

4. Fake news in marketing

Concerning the fake news explosion on social media, the effects and outcomes of fake news in marketing are gaining more popularity. But the findings must help academicians and practitioners to understand different features of fake news and associate them with their fields. Hence, the comprehensive classification presented in this article must be categorized and analyzed.

To categorize the fake news types, seven umbrella categories suggested by [Wardle \(2017\)](#) might be used to cluster fragmented typologies and classification in a more

comprehensive manner, which will benefit the subject from a marketing view. These types are: satire or parody, false connection, misleading content, false context, imposter content, manipulated content and fabricated content. In fact, this category puts different types of fake news, from those which might not be false with no intent to harm to those which are completely fabricated and are aimed to mislead.

Based on the five important characteristics of fake news: the level of truth, intention to deceive, level of harm, motivations and humor, each fake news type is analyzed. With this typology, marketing practitioners, in case of encountering a fake news, might detect the type and features of fake news and formulate their strategy accordingly.

It is noteworthy to mention that one type of fake, disliked news stories, does not fit in any category presented by Wardle but since it is a new form of information which is called fake news. In this fake news, which is being used increasingly, a person rejects a piece of information due to the contradicting nature of the information with his or her current beliefs. For example, President Trump, constantly referred to established media outlet such as *CNN* as fake news since they broadcasted undesirable news.

4.1 Discussion on fake news in marketing

Despite all the efforts, fake news is here to stay. At the first glance, marketing may have nothing to do with fake news, but marketing communications, like all other forms of communications, is affected by this phenomenon. This affection is hopefully unintentionally and unfortunately intentionally, and gradually, fake news is becoming a problem in business and marketing (Di Domenico *et al.*, 2021).

The relation between marketing and fake news is twofold: how marketing practitioners might use fake news and how fake news affects marketing. In recent years, fake news had a profound impact on advertisement and marketing efforts (Kwon *et al.*, 2019), and sometimes, it is difficult to distinguish between marketing communications and fake news. As seen in the case of persuasive information fake news, promotional material disguised as information are now considered a type of fake news because they intend to mislead audience or gain some benefits. Also, cherry-picking can be seen in the partial discloser of truth in some marketing communications.

Furthermore, in the current climate of attention economy in which attention might be exchanged for monetary gain, some forms of fake news are being used enormously. Clickbaits, photo and visual manipulation and sensationalism forms of fake news are new tools for marketers in social media. Increasing viewership, traffic and followers, harvesting likes and gaining more influence leads individuals and websites to use fake news. This might be directly through provocative marketing communications and sponsored contents or indirectly through using increased traffic to get advertisement. In this sense, marketing encourages fake news, which can be seen in the case of fake news websites.

The ultimate problem of fake news for marketing is how the defective information harm brands directly or indirectly. For example, a problem arises when an online algorithm shows a brand advertisement on pages associated with fake news. Consumers evaluate brands based on the pages where their advertisements are available, and this poses a threat to brand image and integrity (Mills *et al.*, 2019). Brand managers must be familiar with different types of fake news and know their characteristics to counter their negative effects.

Finally, it is not all about algorithms and bubble filters. Fake news is an idiosyncratic phenomenon of our age and raises the topic of ethic in business. Marketing is a for-profit business and, as discussed before, might encourage fake news. This takes personal ethics into accounts, and a marketer must ponder what is their personal duty in the situation.

5. Future research agenda for marketing

There is still debate and uncertainty about the definition of fake news and marketing scholars are also trying to define it from marketing's point of view (Di Domenico *et al.*, 2021). Also, in some cases, there is not a clear distinction between misinformation and disinformation. Hence, future research must pertain to fake news in marketing as a stand-alone concept in the marketing concept. Then, ethics, both individual and organizational, must be investigated to understand marketing practitioners' ethical duties.

Fake news is a phenomenon which is spread and magnified through media (Vosoughi *et al.*, 2018). Therefore, future research could focus on social media as a vehicle and context for fake news. Although psychology, communication and journalism have studied social media for distribution of fake news, still marketing and consumer studies have neglected this topic. Future research might address this gap in several ways. For example, they can investigate the motivation of individuals for sharing fake news in marketing context. Although different reasons have been identified in other strings of research, individuals' motivation in marketing domain still needs more attention. Also, they can investigate the believability of fake news and understand why individuals fall for fake news.

The negative effects of fake news on society are undeniable, and the topic also should be investigated in marketing. Branding and advertisement are the domains that are vulnerable to fake news. In the classifications presented in this paper, some marketing communication are classified as fake news: hidden advertising, advertisement, public relations and persuasive information. Branding, brands affiliated with fake news and the effects of fake news on brands and branding could be suitable topics for future research.

Also, the effect of fake news on consumers might be a fruitful domain for researchers. The impact of fake news has been mostly studied at societal levels. However, fake news pertaining to marketing and consumer behavior are mostly at organizational and personal levels. Future research should focus on how companies must formulate their marketing communications and strategy to respond to fake news.

In conclusion, the majority of the research are in the field of communication, psychology or politics, and marketing and consumer behavior are neglected. Studying fake news could help to understand and determine how people see or react to fake news. Other personal aspect such as consumer emotion under the influence of fake news might also shed some light on how individuals as consumer perceive false information. As practiced in previous literature reviews (Belanche *et al.*, 2020), we propose research questions for future research (Table 3).

6. Conclusion

Gaining mainstream popularity since 2016, many researchers have investigated the fake news from different perspectives, resulting in a fragmented literature which added more ambiguity to the topic. This paper tries to provide a holistic view of the most recent works on fake news in terms of definitions, features and classification. This paper, first, tried to conceptualize the definition of fake news. Although many works have defined fake news, sharing some similarities in the definitions, there is no consensus on the definition of the phenomenon. Hence, based on the reviewed articles, a proposition for definition is suggested. Unlike other definitions, the proposed definition relies on the human side of fake news, which might better suit marketing and consumer research. Also, the different features of fake news presented in this article could help future research in understanding a multidimensional concept.

Table 3.
Suggested research
questions for future
research

Domain	Topic
Marketing Conceptualization Ethics	<ul style="list-style-type: none"> – What is the native definition of fake news in marketing? – What are the ethical duties and responsibilities of marketers toward fake news? – is it ethical to harvest attention by using unharmed fake news (satire, humor, etc.)? – what types of marketing communication can be considered as fake news (paid advertisement, fabricated content, partial disclosure, etc.)?
Communications	<ul style="list-style-type: none"> – How marketing communication can use corrective information to diminish the effects of fake news? – what is the role of social influencers in spreading fake news? – how online fake news affects modern forms of marketing such as affiliate marketing?
Branding	<ul style="list-style-type: none"> – What are the effects of fake news on brand loyalty, willingness to purchase brands, brand recommendation, etc.? – what is the future of branding in the world of crowd sourced information consumption?
Consumer behavior Consumers as individual	<ul style="list-style-type: none"> – how individuals evaluate received marketing information based on their context (Webpage, native ads, context, etc.) – how fake news in product category or brands primes consumers' minds in future evaluation? – is fake news gender, education, social class and socioeconomic related?
Consumer as social media user	<ul style="list-style-type: none"> – how individuals, under the influence of echo chambers, bubble filters and social media algorithms, shape their attitudes toward brands? – what are the motivations to share fake news on social media? – how marketing social media voice might enable and encourage fake news?

Another contribution of this paper is to organize the fragmented typologies of fake news. In reviewed articles, a total of 25 types of fake news were identified. In this classification, definition and important features are summarized. Still another problem exists, the fragmentation of typologies. This fragmentation is due to the different context of each study and the presence of fake news in almost every aspect of digital communication and modern life. Thus, different types were gathered under seven categories, which were identified by Wardle (2017). A classification of known types of fake news might help researchers to have a better understanding of the concept.

Now, fake news is an inseparable part of our daily life now. Different types of fake news are a collateral product of the advent and prevalence of social media and digital communications. Advent in technology brings other sophisticated forms of fake news, such as photo manipulation and deep fake, into our reality, which could exert profound damage on brand or marketing communications. Nonetheless, fake news is not studied adequately in marketing and consumption domains. To address this gap, an agenda for future research is presented.

This work might be helpful for future researcher, both in marketing and other domains, to understand different aspects of fake news from different strings of research. Definitions, features and classification presented in this work might be a small contribution to our responsibility to keep information communication and ecosystem clean and fake news free.

Finally, despite all efforts, like all scientific article this paper is subject to limitations as well. The inherent feature of literature review is our main limitation, article is based on secondary data. Although it was tried to include all the available databases and even grey databases, it must be in mind that research on fake news is emerging topic, and many articles might be published in academia which could be used in this article. Future

researches on fake news might develop a more comprehensive study based on the recent findings. Second, it was tried to formulate the process of selecting the article adequately. Keywords and process were designed to answer research objectives. Other researchers might extend our methodology and enrich the findings.

References

- Ahmed, W., Vidal-Alaball, J., Downing, J. and Seguí, F.L. (2020), "COVID-19 and the 5G conspiracy theory: social network analysis of twitter data", *Journal of Medical Internet Research*, Vol. 22 No. 5, p. e19458.
- Aleinikov, A.V., Miletskiy, V.P., Pimenov, N.P. and Strebkov, A.I. (2019), "The fake-news phenomenon and transformation of information strategies in the digital society", *Scientific and Technical Information Processing*, Vol. 46 No. 2, pp. 117-122.
- Allcott, H. and Gentzkow, M. (2017), "Social media and fake news in the 2016 election", *Journal of Economic Perspectives*, Vol. 31 No. 2, pp. 211-236.
- Asudeh, A., Jagadish, H.V., Wu, Y. and Yu, C. (2020), "On detecting cherry-picked trendlines", *Proceedings of the VLDB Endowment*, Vol. 13 No. 6, pp. 939-952.
- BBC (2020), "Coronavirus: outcry after trump suggests injecting disinfectant as treatment", available at: www.bbc.com/news/world-us-canada-52407177
- Belanche, D., Casaló, L.V., Flavián, C. and Schepers, J. (2020), "Service robot implementation: a theoretical framework and research agenda", *The Service Industries Journal*, Vol. 40 Nos 3/4, pp. 203-225.
- Berthon, P., Pehlivan, E., Yalcin, T. and Rabinovich, T. (2019), "True, fake and alternative: a topology of news and its implications for brands", *Journal of Product and Brand Management*, Vol. 29 No. 2, pp. 144-149.
- Blake-Turner, C. (2019), "Fake news, relevant alternatives, and the degradation of our epistemic environment", *Inquiry*, pp. 1-21.
- Bondielli, A. and Marcelloni, F. (2019), "A survey on fake news and rumour detection techniques", *Information Sciences*, Vol. 497, pp. 38-55.
- Bounegru, L., Venturini, T., Gray, J. and Jacomy, M. (2017), "Narrating networks: exploring the affordances of networks as storytelling devices in journalism", *Digital Journalism*, Vol. 5 No. 6, pp. 699-730.
- Buschman, B. (2019), "Good news, bad news, and fake news: going beyond political literacy to democracy and libraries", *Journal of Documentation*, Vol. 75 No. 1, pp. 213-228.
- Chen, Z.F. and Cheng, Y. (2020), "Consumer response to fake news about brands on social media: the effects of self-efficacy, media trust, and persuasion knowledge on brand trust", *Journal of Product and Brand Management*, Vol. 29 No. 2, pp. 188-198.
- Christofides, E., Muise, A. and Desmarais, S. (2009), "Information disclosure and control on Facebook: are they two sides of the same coin or two different processes?", *Cyberpsychology and Behavior : The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, Vol. 12 No. 3, pp. 341-345.
- Cooke, N.A. (2017), "Posttruth, truthiness, and alternative facts: information behavior and critical information consumption for a new age", *The Library Quarterly*, Vol. 87 No. 3, pp. 211-221.
- d' Ancona, M. (2017), *Post-Truth: The New War on Truth and How to Fight Back*, Random House, UK.
- Di Domenico, G., Sit, J., Ishizaka, A. and Nunan, D. (2021), "Fake news, social media and marketing: a systematic review", *Journal of Business Research*, Vol. 124, pp. 329-341.
- Fallis, D. (2015), "What is disinformation?", *Library Trends*, Vol. 63 No. 3, pp. 401-426.
- Finneman, T. and Thomas, R.J. (2018), "A family of falsehoods: deception, media hoaxes and fake news", *Newspaper Research Journal*, Vol. 39 No. 3, pp. 350-361.

- Floridi, L. (1996), "Brave.Net.World: the internet as a disinformation superhighway?", *The Electronic Library*, Vol. 14 No. 6, pp. 509-514.
- Foroughi, H., Gabriel, Y. and Fotaki, M. (2019), "Leadership in a post-truth era: a new narrative disorder?", *Leadership*, Vol. 15 No. 2, pp. 135-151.
- Frank, R. (2015), "Caveat lector: fake news as folklore", *Journal of American Folklore*, Vol. 128 No. 509, pp. 315-332.
- Frankfurt, H. (2005), *On Bullshit Princeton University Press*, Princeton, US.
- Funke, D. (2017), "Should we stop saying 'fake news'?", Poynter, available at: www.poynter.org/news/should-we-stop-saying-fake-news
- Hansson, S.O. (2017), "Science denial as a form of pseudoscience", *Studies in History and Philosophy of Science Part A*, Vol. 63, pp. 39-47.
- Howell, L. (2013), "Digital wildfires in a hyper connected world", *WEF Report*, Vol. 3, pp. 15-94.
- Humprecht, E. (2019), "Where 'fake news' flourishes: a comparison across four Western democracies", *Information, Communication & Society*, Vol. 22 No. 13, pp. 1973-1988.
- Kilgo, D.K. and Sinta, V. (2016), "Six things you didn't know about headline writing: sensationalistic form in viral news content from traditional and digitally native news organizations", *In Research Journal of the International Symposium on Online Journalism*, Vol. 6 No. 1, pp. 111-130.
- Kilgo, D.K., Harlow, S., García-Perdomo, V. and Salaverria, R. (2018), "A new sensation? An international exploration of sensationalism and social media recommendations in online news publications", *Journalism*, Vol. 19 No. 11, pp. 1497-1516.
- Kirner-Ludwig, M. (2019), "Creation, dissemination and uptake of fake-quotes in lay political discourse on Facebook and Twitter", *Journal of Pragmatics*, Vol. 157, pp. 101-118, doi: [10.1016/J.PRAGMA.2019.07.009](https://doi.org/10.1016/J.PRAGMA.2019.07.009).
- Kirner-Ludwig, M. (2020), "Creation, dissemination and uptake of fake-quotes in lay political discourse on Facebook and twitter", *Journal of Pragmatics*, Vol. 157, pp. 101-118.
- Kitchenham, B. (2004), "Procedures for performing systematic reviews", *Keele, UK, Keele University*, Vol. 33, pp. 1-26.
- Kwon, E.S., King, K.W., Nyilasy, G. and Reid, L.N. (2019), "Impact of media context on advertising memory: a meta-analysis of advertising effectiveness", *Journal of Advertising Research*, Vol. 59 No. 1, pp. 99-128.
- Lazer, D.M.J., Baum, M.A., Benkler, Y., Berinsky, A.J., Greenhill, K.M., Menczer, F., Metzger, M.J., Nyhan, B., Pennycook, G., Rothschild, D., Schudson, M., Sloman, S.A., Sunstein, C.R., Thorson, E. A., Watts, D.J. and Zittrain, J.L. (2018), "The science of fake news", *Science*, Vol. 359 No. 6380, pp. 1094-1096, doi: [10.1126/science.aao2998](https://doi.org/10.1126/science.aao2998).
- Leeder, C. (2019), "How college students evaluate and share 'fake news' stories", *Library and Information Science Research*, Vol. 41 No. 3, p. 100967.
- Levy, N. (2017), "The bad news about fake news", *Social Epistemology Review and Reply Collective*, Vol. 6 No. 8, pp. 20-36.
- McGonagle, T. (2017), "Fake news' false fears or real concerns?", *Netherlands Quarterly of Human Rights*, Vol. 35 No. 4, pp. 203-209.
- Meel, P. and Vishwakarma, D.K. (2019), "Fake news, rumor, information pollution in social media and web: a contemporary survey of state-of-the-arts, challenges and opportunities", *Expert Systems with Applications*, Vol. 153, p. 112986.
- Mills, A.J., Pitt, C. and Ferguson, S.L. (2019), "The relationship between fake news and advertising: brand management in the era of programmatic advertising and prolific falsehood", *Journal of Advertising Research*, Vol. 59 No. 1, pp. 3-8.

- Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P. and Stewart, L.A. (2015), "Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement", *Systematic Reviews*, Vol. 4 No. 1, pp. 1-9.
- Molek-Kozakowska, K. (2013), "Towards a pragma-linguistic framework for the study of sensationalism in news headlines", *Discourse and Communication*, Vol. 7 No. 2, pp. 173-197.
- Molina, M.D., Sundar, S.S., Le, T. and Lee, D. (2021), "Fake news is not simply false information: a concept explication and taxonomy of online content", *American Behavioral Scientist*, Vol. 65 No. 2, pp. 180-212.
- Montgomery, L. and Gray, B. (2017), "Information veracity and the threat of fake news", in Matarazzo, J.M. and Pearlstein, T. (Eds) *The Emerald Handbook of Modern Information Management*, Vol. 409, Emerald Publishing Limited, Bingley, pp. 409-435, doi: [10.1108/978-1-78714-525-220171017](https://doi.org/10.1108/978-1-78714-525-220171017).
- Mourão, R.R. and Robertson, C.T. (2019), "Fake news as discursive integration: an analysis of sites that publish false, misleading, hyperpartisan and sensational information", *Journalism studies*, Vol. 20 No. 14, pp. 2077-2095.
- Mukerji, N. (2018), "What is fake news?", *Ergo: An Open Access Journal of Philosophy*, Vol. 5 No. 35, pp. 923-946.
- NBC Universal News Group (2017), "Now it's getting serious: 2017 could see a bacon shortage", NBC News, available at: www.nbcnews.com/business/consumer/now-it-s-getting-serious-2017-could-see-bacon-shortage-n715351 (accessed 27 May 2022).
- New York Times (2017), "Bacon shortage? Calm down. It's fake news", NYTimes, available at: www.nytimes.com/2017/02/01/business/bacon-shortage.html#:~:text=The%20alarming%20headlines%20came%20quickly,Is%20Running%20Low%20on%20Bacon (accessed 27 May 2022).
- Nielsen, R. and Graves, L. (2019), "'News you don't believe': audience perspectives on fake news", In Reuters Institute for the Study of Journalism (Reuters Institute for the Study of Journalism Factsheets). Reuters Institute for the Study of Journalism. Retrieved from University of Oxford, Reuters Institute website, available at: https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2017-10/Nielsen%26Graves_factsheet_1710v3_FINAL_download.pdf
- Ormond, D., Warkentin, M., Johnston, A.C. and Thompson, S.C. (2016), "Perceived deception: evaluating source credibility and self-efficacy", *Journal of Information Privacy and Security*, Vol. 12 No. 4, pp. 197-217.
- Palmatier, R.W., Houston, M.B. and Hulland, J. (2018), "Review articles: purpose, process, and structure", *Journal of the Academy of Marketing Science*, Vol. 46 No. 1, pp. 1-5.
- Paul, J. and Benito, G.R. (2018), "A review of research on outward foreign direct investment from emerging countries, including China: what do we know, how do we know and where should we be heading?", *Asia Pacific Business Review*, Vol. 24 No. 1, pp. 90-115.
- Pennycook, G., Cannon, T.D. and Rand, D.G. (2018), "Prior exposure increases perceived accuracy of fake news", *Journal of Experimental Psychology: General*, Vol. 147 No. 12, p. 1865.
- Picchi, A. (2016), "Fake news spurs trump backers to boycott PepsiCo", CBS News, available at: www.cbsnews.com/news/trump-supporters-boycott-pepsico-over-fake-ceo-reports/ (accessed 27 May 2022).
- Quandt, T., Frischlich, L., Boberg, S. and Schatto-Eckrodt, T. (2019), "Fake news", *International Encyclopedia of Journalism Studies*, John Wiley & Sons, US, pp. 1-6.
- Rochlin, N. (2017), "Fake news: belief in post-truth", *Library Hi Tech*, Vol. 35 No. 3, pp. 386-392.
- Rose, J. (2020), "To believe or not to believe: an epistemic exploration of fake news, truth, and the limits of knowing", *Postdigital Science and Education*, Vol. 2 No. 1, pp. 202-216.
- Rubin, V.L., Chen, Y. and Conroy, N.J. (2015), "Deception detection for news: three types of fakes", *Proceedings of the Association for Information Science and Technology*, Vol. 52 No. 1, pp. 1-4.

- Sample, C., Justice, C. and Darraj, E. (2018), "A model for evaluating fake news", *The Cyber Defense Review*, pp. 171-192.
- Shin, J., Jian, L., Driscoll, K. and Bar, F. (2018), "The diffusion of misinformation on social media: temporal pattern, message, and source", *Computers in Human Behavior*, Vol. 83, pp. 278-287.
- Silverman, C. and Singer-Vine, J. (2016), "Most Americans who see fake news believe it, new survey says", BuzzFeed News, available at: www.buzzfeednews.com/article/craigsilverman/fake-news-survey
- Stanford History Education Group (2016), "Executive summary", available at: <https://sheg.stanford.edu/upload/V3LessonPlans/Executive%20Summary>
- Talwar, S., Dhir, A., Kaur, P., Zafar, P. and Alrasheedy, M. (2019), "Why do people share fake news? associations between the dark side of social media use and fake news sharing behavior", *Journal of Retailing and Consumer Services*, Vol. 51, pp. 72-82.
- Tandoc, E.C., Jr, Jenkins, J. and Craft, S. (2019), "Fake news as a critical incident in journalism", *Journalism Practice*, Vol. 13 No. 6, pp. 673-689.
- Tandoc, E.C., Jr, Lim, Z.W. and Ling, R. (2018), "Defining fake news a typology of scholarly definitions", *Digital Journalism*, Vol. 6 No. 2, pp. 137-153.
- Vosoughi, S., Roy, D. and Aral, S. (2018), "The spread of true and false news online", *Science*, Vol. 359 No. 6380, pp. 1146-1151.
- Wang, Y., McKee, M., Torbica, A. and Stuckler, D. (2019), "Systematic literature review on the spread of health-related misinformation on social media", *Social Science & Medicine*, p. 112552.
- Wardle, C. and Derakhshan, H. (2017), Information disorder: toward an interdisciplinary framework for research and policy making, Council of Europe Report, 27.
- Wardle, C. (2017), "Fake news", *It's complicated. First Draft*, Vol. 16, pp. 1-11.
- Washington Post (2021), "Fact checker: tracking all of president trump's false or misleading claims", available at: www.washingtonpost.com/graphics/politics/trump-claims-database/?utm_term=.c3f25d837837
- Weidner, K., Beuk, F. and Bal, A. (2019), "Fake news and the willingness to share: a schemer schema and confirmatory bias perspective", *Journal of Product and Brand Management*, Vol. 29 No. 2, pp. 180-187.
- Weiss, A.P., Alwan, A., Garcia, E.P. and Garcia, J. (2020), "Surveying fake news: assessing university faculty's fragmented definition of fake news and its impact on teaching critical thinking", *International Journal for Educational Integrity*, Vol. 16 No. 1, p. 1.
- World Economic Forum (2014), "The rapid spread of misinformation online", available at: <http://reports.weforum.org/outlook-14/top-ten-trends-category-page/10-the-rapid-spread-of-misinformation-online/>
- Zhang, X. and Ghorbani, A.A. (2020), "An overview of online fake news: characterization, detection, and discussion", *Information Processing and Management*, Vol. 57 No. 2, p. 102025.
- Zhou, X. and Zafarani, R. (2020), "A survey of fake news: fundamental theories, detection methods, and opportunities", *ACM Computing Surveys*, Vol. 53 No. 5, pp. 1-40.

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