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Mapping the Scholarship of Fake News Research: A Systematic Review

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ABSTRACT

This study empirically examined studies on fake news through a content analysis of 103 peer-reviewed articles obtained from the eight major databases. The articles were published between 2000 and 2018. This systematic review of the journals, progression, theories, methodologies, media genres, common used words, and geospatial distribution indicated that the majority of the articles were published in *Journalism Practice*, *Popular Communication*, *Digital Journalism*, and *Journalism Studies*. Regarding progression, the highest number of publications was recorded for 2017 and 2018. At least one article was published each year beginning in 2005; 2006 and 2014 were exceptions. The results indicate that the majority of the articles were atheoretical. Qualitative research methods, content analysis, and surveys which were applied oftentimes. The studies were equally distributed across all media genres (traditional, digital, and social media). However, television and Twitter were the platforms that received the greatest amount of scholarly attention. The articles focused on the United States more than any other country. Finally, “news,” “media,” and “fake” were the most regularly frequently occurring words.

KEYWORDS

Fake news; fake news research; content analysis; text mining; systematic review; Journalism

Introduction

Fake news is any form of news that is intentionally falsified and disseminated with the sole aim of misleading or creating doubt.¹ Fake news is not a new term (McGonagle 2017; McNair 2017; Tandoc et al. 2018). Although its origins are unclear, it has been an enduring phenomenon. One of the earliest instances is the 31 BC Battle of Actium (Brummette et al. 2018). The term has been traced to World Wars I and II.² Others have argued that it predates the dawn of “real news.”³

Despite the historical imprecision surrounding fake news, historical accounts have illustrated the visibility of the relationship between politics and falsified news.⁴ Over the years, the media, especially the press affiliates of political parties, have disseminated one-sided opinions and a great deal of information lacking credibility. The following question regarding partisan and fabricated news is still being asked: To what extent should this kind of reportage be controlled, especially in a democratic nation? McGonagle (2017) stated:

“How much room should the watchdog be given to roam or how tight should the leash be? It is a question that centrally involves both law and ethics and there are no conclusive answers” (204).

Recently, fake news has received a new lease on life because of the all-time high level of news stories around the world. In the United States, the claim that “certain stories were ‘fake news’ was co-opted by 45th President of the United States of America, Mr. Donald J. Trump during his run in the Republican Primaries in 2016, and has largely become a right-wing rhetorical device ever since” (Dentith 2017, 66). This narrative has continued, and Trump’s abusive and disparaging tweets and speech about the fake news media largely include the real news media. This narrative is designed to instill a lack of confidence in and to increase the vilification of the news media. Over time, it could lead to a hostile climate for reporters and newsmakers (McGonagle 2017).

That “the term has acquired status as a pejorative label for liberal media outlets, and has lost commonly accepted meaning” is evident (Jankowski 2018, 248). However, the manipulation of actual reports to mislead groups of people into doubting confirmed facts or to misguide the public in pursuit of national agendas or political interests is currently very common. The situation before the United Kingdom (UK) European Union membership “Brexit” referendum provides an example. Groups of people who wanted the UK to leave the European Union used strategies, such as fearmongering, to mislead. Published stories warned UK citizens that refugees and asylum seekers would invade the country (Vasu et al. 2018).

These events have prompted conversations about fake news. Most relevant to the present study is the influence on research on the “post-truth era” or fake news (Zhou and Zafarani 2018). That increasing attention has been given to fake news is evident. Given the assertion that it is not a new phenomenon, there is surprisingly little empirical evidence about the types of research that have been conducted. This deficit is the major reason for the present study. Therefore, the study aimed to empirically examine the journals, progression, theories, methodologies, media genres and platforms, most frequently used words, and geospatial distribution regarding the studies on fake news that were published between 2000 and 2018.

Studies on fake news precede 2000; however, the present study focused on the research published between 2000 and 2018. First, prior to the 2000s, few studies were conducted. Most importantly, this period, as has been directly or indirectly stated in studies, has given rise to a new generation of fake news (Duffy and Tan Rui Si 2017; Mihailidis and Viotty 2017; Carlson 2018; Pedersen and Burnett 2018; Perez Tornero, Samy Tayie, and Tejedor 2018; Waisbord 2018). The growth of fake news parallels that of digital and social media. Examples are the launch of Facebook and Twitter and the availability of software that facilitates the creation of websites at reduced cost and eliminates the burdens of mass publication. The development of these platforms saw the rise of fake news and the academic study of it. The initial stages of this study indicated that an overwhelming majority of the studies were conducted after 2000. Thus, the use of this date as the starting period for the meta-analysis allowed for the collection of a valid sample.

The present study is very important because of its significant contribution to the literature. First, according to Jankowski (2018), “in the light of the degree of attention and concern about fake news, it is safe to anticipate an increase in scholarly attention to the

topic" (251). Janowski hoped that the classic patterns and concerns of this genre of scholarship would be addressed in future media and communication research. According to Jankowski, in the absence of a strong connection between the main communication theory:

[as] applied to fake news, this suggests research can be organized according to news production, reception and message. Further, the context in which fake news operates (e.g., social, cultural and historical; country and political system; and type of events such as election or public discussion of issues) is of importance. Initiatives for social action, typically outside the parameters of the dominant research paradigm, are also important for consideration. (252)

This study focuses on communication and media studies areas such as journalism, public relations, and digital media. The goal of this study is to increase the understanding of the communication research on the fakenews phenomenon. It is evident that a study documenting the history of this scholarship is crucial at this point of its resurgence.

Second, this study evaluated important variables, such as the journals, progression, methodologies, media genres, media platforms, most frequently used words, and geospatial distribution regarding the research on fake news. These are all important elements of a comprehensive systematic literature review. Third, unlike many meta-analyses in media and communication or related studies (Elega and Özad 2018; Comfort and Park 2018; Jankowski 2018), this study examined the theoretical frameworks: an area that lacks scholarly attention, as noted in previous studies (Edeani 1995; Wasike 2017). A milestone mass communication meta-analysis stated that "the volume, scope, and quality of research and theory development in any academic discipline are among the important yardsticks for the assessment of the status of the discipline" (Edeani 1995, 26). Overall, the present study makes important contributions. It increases the knowledge of the empirical research on fake news by highlighting the areas that have received a great deal of attention and those that have not.

Definition, History, and Scholarship

Definition of Fake News

Fake news can be defined as news stories that are published with the intention to mislead. According to Allcott and Gentzkow (2017), this definition excludes other meanings or terms that have been grouped under the concept. These include mistakes, hearsay that cannot be traced to a specific news story, and "conspiracy theories (these are, by definition, difficult to verify as true or false, and they are typically originated by people who believe them to be true" (Allcott and Gentzkow 2017, 214). The definition excludes satirical stories that are unlikely to be misconstrued as factual: "false statements by politicians; and 6) reports that are slanted or misleading but not outright false (in the language of Gentzkow, Shapiro, and Stone 2016, fake news is 'distortion,' not filtering" (Allcott and Gentzkow 2017, 214).

The term fake news falls under the same category of concepts such as misinformation, disinformation, junk news, and hoax news. These and other terms have been comprehensively examined in discussions of fake news (Asa and Ib 2008; Allcott and Gentzkow 2017; Finneman and Thomas 2018; Guo and Vargo 2018; Tandoc et al. 2018; Waisbord 2018). Although these terms seem similar, they are different. For example, Venturini (2019)

argued that a news article with a title such as “‘Macron-is-gay’ example suggests, spread, rather than fakeness” (4). This kind of news “should be called ‘viral news’ or possibly ‘junk news’ just as junk food” (4). Junk news is dangerous not because it is false but because it saturates the public debate. Leaving little space for other discussions, it reduces the richness of public debate and prevents more important stories from being heard.

Hoax news, junk media, and fake news are not the same. According to Finneman and Thomas (2018), “the believability of fake news derives from its imitation of journalism. Yet there are two critical differences between these ‘sisters’ of falsehood: the actors involved and the specifics of their intent” (358). Finneman and Thomas also asserted that although “professional media actors (i.e., those whose occupation involves the use of mass media, such as journalists, writers, deejays, entertainers, etc.) create hoaxes, nonmedia actors create fake news” (358). According to this view, “for fake news, deception is the end in itself, as the aim is to manipulate” (Finneman and Thomas 2018, 358). Thus, “fake news is the intentional deception of a mass audience by nonmedia actors via a sensational communication that appears credible but is designed to manipulate and is not revealed to be false” (Finneman and Thomas 2018, 358).

Fake news can be deceptive because of the selective removal or inclusion of vital information to create a false connection that could potentially mislead audiences. Grouping a number of people, issues, and events to generate a conspiracy theory is an example. Doctored videos and photographs and the news stories that reinforce these images or advance false narratives are also considered fake news (Guo and Vargo 2018). The two main drivers of the production of fake news are finance and ideology or politics. Guo and Vargo (2018) asserted that “beyond the reporting itself, fake news can also deceive on the medium (e.g., website) level by acting as an imposter and fooling audiences into thinking their platform is a well-known source” (2–3).

History of Fake News

The phenomenon and the term fake news are not new. According to historians, it can be traced to Johannes Gutenberg’s invention of the printing press in 1439. The wide circulation of fake news, the preponderance of news sources (mostly political and religious), and the lack of objectivity and codes of ethics in the journalism of that era also made the verification of news difficult. Thus, audiences had to pay close attention: “In the sixteenth century, those who wanted real news believed that leaked secret government reports were reliable sources, such as Venetian government correspondence, known as *relazioni*” (Soll 2016, 5). Fake *relazioni* leaks became widespread, thereby delegitimizing the idea that leaked secret government documents were factual and reliable reports or sources:

By the 17th century, historians began to play a role in verifying the news by publishing their sources as verifiable footnotes. The trial over Galileo’s findings in 1610 also created a desire for scientifically verifiable news and helped create influential scholarly news sources. (Soll 2016, 5)

As printing grew, so did fake news: from stories about everyday people, events, and issues to those related to religion. On Easter Sunday in 1475, Italy experienced fake news. Simonino, a toddler who was approximately 2 years old, was reported missing. In a sermon, Bernardino da Feltre, a Franciscan preacher, claimed that Simonino had been killed and that her blood had been used in the Passover celebrations. Stories quickly circulated

throughout the city. Reacting to Bernardino's claim, Johannes IV Hinderbach, the Prince-Bishop of Trent, had members of the Jewish community arrested. As a result, 15 people were burnt. Johannes IV Hinderbach's approach was later adopted in other communities. In 1761, Marc-Antoine Calas, a young man who was approximately 22 years old, killed himself. His father was a Protestant merchant in Toulouse. Through Roman Catholic activists, news was disseminated that Jean, Calas's father, had committed homicide because he wanted Marc-Antoine Calas to convert from Catholicism. These rumors subsequently became official news.⁵

The 1755 Lisbon earthquake was one of the most complex news stories ever. The church and many European authorities blamed the natural disaster on divine retribution. A new fake news genre, pamphlets (*relações de sucessos*), emerged in Portugal. The pamphlets claimed that some survivors owed their lives to an apparition of the Virgin Mary. These religious-inspired accounts of the earthquake sparked the famous Enlightenment philosopher Voltaire to attack religious explanations of natural events. He also became an activist against fake religious news.

It is therefore evident that fake news is not new. The term has a long history. One of the first mentions can be found in *The Arena*, a Boston magazine. The author, J. B. Montgomery-McGovern (1898) called the new phase of gutter journalism a "'fake journalism' or 'fake news'—a new trend characterized by sensationalism and 'the publication of articles absolutely false, which tend to mislead an ignorant or unsuspecting public'" (240).

Fake news has always been an element of the news. Public and private media outlets have published fake reports to deceive readers by selectively removing or including information and/or creating other forms of fake news. The issue of fake news has become more concerning because of its existence on digital media platforms. The digital media is being exploited to produce political news to indoctrinate audiences through the addition of geographic metadata and the application of micro-segmentation. Analyses of the 2016 U.S. presidential election have indicated that Facebook users had more interactions with fake news stories than with reputable news organizations. After the election, some social media platforms, such as Facebook, received harsh criticism because of the dissemination of fake news. Parkinson (2016) asserted that the verified misleading content on Facebook could be considered very influential because it was shared by many users. He also highlighted the liability associated with the dissemination of fake news (Brummette et al. 2018).

Amid the media concern about fake news and its management, one fact seems to have been lost: fake news is not a new phenomenon. Dating back to the invention of the printing press, it has been around for more than 500 years ago: much longer than verified "objective" news, which emerged a little more than a century ago. Fake news has always tended to be sensationalist and extreme. It is designed to inflame passions and prejudices, and it has often provoked violence. The Nazi propaganda machine relied on the same types of fake stories about the Jewish ritual drinking of children's blood that inspired Prince-Bishop Hinderbach in the fifteenth century. Perhaps, most dangerous is the terrifying power and persistence of fake news. As Pope Sixtus IV discovered, wild fake stories with roots in popular prejudices often prove difficult for responsible authorities to manage.

One flicker of hope in this long and appalling history of fake news is yellow journalism and its consequences, from civil violence to war, which led to a backlash and the public's

desire for more objective news. It was this form of journalism that led to the growth of relatively objective journalism as an industry in the United States. For the first time, reporters were hired to cover statehouses and civil affairs and to strengthen the trust between the local, state, and national reporters and the public (Soll 2016). According to Soll (2016) the hegemony of the fake news returned again to be the hegemonic force when the rise of:

web-generated news that our era's journalistic norms were seriously challenged, and fake news became a powerful force again. Digital news, you might say, has brought yellow journalism back to the fore. For one, algorithms that create news feeds and compilations have no regard for accuracy and objectivity. At the same time, the digital news trend has decimated the force—measured in both money and manpower—of the traditional, objectively minded, independent press. (16)

The scope of misinformation and fake news online has become an increasingly important topic because of the potential effects on societal processes, such as political elections and public policy (Allcott and Gentzkow 2017). Major issues are political and ideological polarization and the filter bubble of social networking sites, such as Facebook and Twitter. The debate surrounding the acceptance of opposing viewpoints gained much attention because of the 2016 U.S. presidential election and the 2016 UK European Union membership referendum. These political events have shown that these two nations are politically divided. There are ideologically opposed groups. For example, in the United States, the ideological difference between non-activist Democrats and Republicans has doubled from 1972 to 2004 (Geiger 2016). Many have attributed this to the fact that social media sites, such as Facebook and Twitter, allow anyone to post and share news stories and other content, such as images and videos, without being subjected to a standard fact-checking or editorial process.

Scholarship on Fake News

What is research on fake news? An aspect of journalism scholarship, research on fake news has earned considerable attention in multiple academic fields and regions around the world. Studies have explored fake news in several sectors, such as health (Rapp and Salovich 2018; Sommariva et al. 2018; Britt et al. 2019), politics (Graham 2017; Moretti 2017; Rose 2017; Wasserman 2017; Allen and McAleer 2018; Nelson and Taneja 2018; Bovet and Makse 2019), education (Bhaskaran, Mishra, and Nair 2017; Horn 2019), the environment (Allen and McAleer 2018), and the financial markets (Kogan, Moskowitz, and Niessner 2018).

The long history of fake news is not reflected in the volume of scholarship on the phenomenon. According to Jankowski (2018), empirical studies have generally focused on and evaluated misinformation rather than fake news. Thus, studies has been conducted on misinformation for a much longer period than on fake news. For example, Herson (1995) explored misinformation and disinformation through an exploratory approach. The following main research question was posed: "How often and in what circumstances can the integrity of a document—in either print or electronic form—be taken for granted?" (Herson 1995, 133). Hofstetter et al. (1999) explored the effects of radio programs on political information and misinformation on climate issues (Bolsen and Druckman 2015; van der Linden et al. 2017), general scientific findings (Bolsen and Druckman 2015),

and innovations in media literacy and automatic detection systems (Rubin, Chen, and Conroy 2015).

A new wave of scholarly studies on fake news seems to be developing. Two recently published articles that explicitly address political events are highlighted: “Social Media and Fake News in the 2016 Election” (Allcott and Gentzkow 2017) and “Fake News as a Floating Signifier: Hegemony, Antagonism, and the Politics of Falsehood” (Farkas and Schou 2018). These two publications are not representative of recent scholarship. However, they illustrate the range of theoretical perspectives, questions, and methods that are being employed. Moreover, they provide a basis for further empirical investigations, particularly from media and communication studies perspectives, which are elaborated in the conclusion of this article.

These new trends show that database searches would yield many fairly recent publications (Anderson 2017). This leads to the following question: What are the influential factors in this increase in research on fake news? The first factor is the growth of the internet and social media. This has presented difficulties for modern democracies and parallels the intensity of the fake news debate. Previously, the creation and dissemination of information on online platforms could be regarded as unimportant because remote locations could be reached instantly. However, audiences now have the capability to participate in news production and dissemination (Tong 2018).

Another related concern is the current “post-truth era.” This has been explained as the circulation of information that stirs emotions or comports with personal beliefs and is thus likely to be accepted without question (Keyes 2004). The internal structure of the filter bubbles in social media groups and personalized web services leads to users’ not being exposed to other viewpoints. Thus, they remain in their comfort zones that continually endorse their preconceptions (Diana 2016).

In this “post-truth era,” social media platforms have been weaponized by governments and people around the world. In addition to the UK and the United States, the Persian Gulf and other regions have experienced problems. Facebook content and Twitter bots have been used to create fake news and trends. For example, during the ongoing Gulf crisis, the political and commercial relationships among Qatar, Saudi Arabia, Egypt, Bahrain, and the United Arab Emirates were severed; however, the countries have been linked by an extensive web-based propaganda campaign (Jones 2019). According to Jones, bots were used during the crisis principally to produce and to disseminate increasingly negative information about the nations that imposed the blockade against Qatar. The study was conducted to explain the use of bots to control Twitter trends, to disseminate fake news, to increase the anti-Qatar tweets from political figures, to show the non-existence of grassroots Qatar dissent, and to counteract the information circulating about Qatar.

Fake news is a universal phenomenon; thus, its global prevalence has received a great deal of attention. Bovet and Makse (2019), Nelson and Taneja (2018), and Graham (2017) explored its role in the 2016 U.S. presidential election. Wasserman (2017) explored the influence of fake news in creating moral panic in South Africa. Haigh, Haigh, and Kozak (2017) examined its role in the Ukrainian–Russian dispute. Fletcher et al. (2018) investigated the creation, consumption, and distribution of news online in Europe. Banerjee et al. (1999) and Bhaskaran, Mishra, and Nair (2017) examined the role of fake news in India in the wake of the post-truth discourses in the UK and the United States.

The studies largely adopted media and communication studies perspectives to “illustrate the range of theoretical perspectives, questions and methods being employed to explore aspects of fake news” (Jankowski 2018, 249). They addressed several elements of traditional media. Cunha et al. (2018) explored the recent framing and discussions of fake news in the traditional media in 20 countries. Studies have also focused on news audiences. Nelson and Taneja (2018) explored the listeners, readers, and viewers of news in this fake news era. Nielsen and Graves (2017) investigated audience perceptions of fake news, and Marchi (2012) studied young adults’ preferences for opinionated rather than factual news. Vargo, Guo, and Amazeen (2018) investigated the use of fake news to create public awareness of issues. Other studies have explored the control and cessation of the phenomenon (Ciampaglia 2017; Haigh, Haigh, and Kozak 2017; Clayton et al. 2019).

It is evident that fake news in the traditional has gained scholarly attention across sectors and countries; however, newer studies have focused on social media. Torres, Gerhart, and Negahban (2018) examined users’ corroboration of the information that is sought and received on social networking sites. Vargo, Guo, and Amazeen (2018) conducted a computational analysis of the content on an online news platform between 2014 and 2016 to determine the role and effects of fake news and fact-checkers in agenda setting. The results showed that despite the increase in content on the fake news websites, these websites failed to exercise any control. Sommariva et al. (2018) explored the use of social networking sites in the circulation of health-related rumors, specifically those concerning the Zika virus. The results of this content analysis of online articles between February 2016 and January 2017 indicated that Zika-related rumors were shared three times more frequently than factual news. Some websites presented Zika as a fake news to the people. The sites also reported it as a non-hazardous virus that originated from pesticides. Tandoc et al. (2018) examined users’ verification of news on social networking sites.

In a recent study, Clayton et al. (2019) explored the effectiveness of strategies to counter fake news on social networking sites. Koohikamali and Sidorova (2017) examined users’ attitudes toward and perceptions of social media use. Allcott and Gentzkow’s (2017) empirical and theoretical study explored the role of social media in the dissemination of fake news during the U.S. 2016 election. Bovet and Makse (2019) studied the role and effects of false news on Twitter during that election. Through an examination of 30 million tweets from 2.2 million Twitter users, they found that the actions of Trump’s backers increased the power of the popular false news disseminators.

These studies indicate the scope of the research on fake news. Several issues, especially those from the perspectives of media and communication studies, have been addressed. Zhou and Zafarani (2018) discussed fake news from four perspectives: “(1) the false knowledge it carries, (2) its writing style, (3) its propagation patterns, and (4) the credibility of its creators and spreaders” (1). Jankowski’s (2018) meta-analysis reviewed only two articles. No other studies used the variables applied in this study to conduct comprehensive investigations of fake news. There is an absence of measuring “bibliometric elements of the peer-reviewed literature as well as methodological approaches to discover the field’s areas of concentration as well as its oversights” (Comfort and Park 2018, 863). Therefore, the following research questions were posed:

RQ1: What journals published fake news focused research between 2000 and 2018?

RQ2: How has fake news research progressed over the past eighteen years?

RQ3: What are the most used theories in fake news focused research published between 2000 and 2018?

RQ4: What are the major methodologies adopted in fake news focused research between 2000 and 2018?

RQ5: What media genre and platforms were explored in fake news focused between 2000 and 2018?

RQ6: What is the geospatial distribution of the fake news focused research between 2000 and 2018?

RQ7: What are the most used keywords in fake news focused research published between 2000 and 2018?

Method

Sample

The current trends, patterns, and developments in the research published from 2000 to 2018 were examined through a quantitative content analysis of the journals, progression, theories, methodologies, media genres and platforms, most frequently used words, and geospatial distribution regarding fake news.

To acquire a sufficient number of empirical peer-reviewed studies, searches of articles published between 1 January 2019 and 10 February 2019 were performed in the following databases: EBSCO's Communication & Mass Media Complete, ScienceDirect, SAGE Journals, ProQuest Central, Taylor & Francis Online, Web of Science, Springer, and Google Scholar. These databases were chosen because of their high reputation and affiliation with the high-impact journals that publish quality empirical peer-reviewed media and communication studies articles.

This study focused on peer-reviewed articles that were published between 2000 and 2018 because the pilot test revealed the existence of only a few publications on fake news prior to the 2000s. Digital and social media began in the early 2000s, thus the growth of the phenomenon and the related research. Studies have referred to this as a new generation of fake news (Duffy and Tan Rui Si 2017; Mihailidis and Viotty 2017; Carlson 2018; Pedersen and Burnett 2018; Perez Tornero, Samy Tayie, and Tejedor 2018; Waisbord 2018).

In the present study, media and communication studies journals are those that identify themselves as communication journals or publishers of articles on communication research and theories, journalism, media studies, public relations, mass media, semiotics, political communication, public opinion, new media, social media, digital media, communication, media education, international communication, mass media ethics, cultural communication, and related fields. It must be acknowledged that the fake news phenomenon has gained considerable attention in many fields of study. The present study investigated the scholarly research on the fake news phenomenon over the past 18 years. The focus on these researchers and the methodological rationale for this approach facilitated

the authoritative reporting of the findings. Theoretical and practical insights have been gleaned from studies in political communication and other disciplines.

To be added to the sampling frame, the articles had to be empirical studies for which the full-text English-language online or print articles had been published in the field of media and communication studies. A search was performed on the keyword “fake news,” and the following inclusion and exclusion criteria were applied. First, the term “fake news” had to be stated in the titles, keywords, or abstracts of the articles. Duplicate articles and other kinds of publications, such as conference proceedings, reports, book, and book chapters, were excluded.

Fake news is a term that has been used in many contexts, such as parody, propaganda, disinformation, and misinformation. It has even been used interchangeably with these concepts. However, in the present study, the term was used only to perform searches in order to avoid generalizations that could potentially affect the validity of the findings. For example, some of these terms, although closely related to fake news, have slightly different meanings (Venturini 2019). According to Venturini, a news article with a title such as “‘Macron-is-gay’ example suggests, spread, rather than fakeness” (4). This kind of news “should be called ‘viral news’ or possibly ‘junk news’ just as junk food” (4).

Coding Scheme

To ascertain the content of fake news focused research, the journals, countries and theories were analyzed and, to provide a holistic image of the topics contained in the articles from several scientific perspectives (Fuchs, Pernul, and Sandhu 2011), the following tables and titles show categories, definitions and how categories were coded (Table 1).

Progression of Fake News Focused Research

To review the yearly progression of fake news focused research, researchers coded the following categories, (1) 2000 (2) 2001 (3) 2002 (4) 2003 (5) 2004 (6) 2005 (7) 2006 (8) 2007 (9) 2008 (10) 2009 (11) 2010 (12) 2011 (13) 2012 (14) 2013 (15) 2014 (16) 2015 (17) 2016 (18) 2017 (19) 2018.

Table 1. Categories and definitions.

Categories	Definitions
Progression	A clear trend of the increase or reduction of fake news Focused articles throughout the period 2000–2018.
Research methodology	The research methodologies adopted by fake news Focused papers (qualitative, quantitative, mixed, and others).
Data collection methods	The techniques adopted by fake news Focused papers in collecting information from all appropriate sources in order to provide answers to research questions.
Media genre	The category, type or kind of media generation used in the studied communication process which in our case includes traditional media, digital media, and social media.
Media platforms	The exact type of media outlets used in the mass communication process to contact the audience such as TV, Radio, Facebook, Twitter etc.
Geospatial distribution	This is based on the geographical concentration of the issues been discussed and studied within the fake news Focused research papers in terms of continents and countries. For example, the articles that studied fake news in the context of the US elections are classified in north American continent and USA.
Most used words	It expresses the most frequently used and repeated words and terms within the text of the study sample. In our case, the sample is the text of the fake news Focused articles. It explains the directions, tendencies and focuses on the selected text.

Media Genres

To understand the content of media genres, we coded the following categories: (1) Traditional media (Television, newspapers, and radio etc.) (2) Digital media (Online news websites and blogs) (3) Social media (Twitter, Facebook, and WhatsApp) (4) Multiple media genre (5) No Media genre.

Media Platforms. To understand the content of individual media platforms, we coded the following categories: (1) Television (2) Radio (3) Newspapers (4) Magazines (5) Facebook (6) Twitter (7) Blogs (8) Online news websites (9) Forums (10) WhatsApp (11) Websites of traditional media platforms (12) Multiple media platforms, and (13) No media platforms.

Methodologies

To ascertain patterns in fake news focused research methodologies, we adapted Baxter and Connolly's (2013), and we coded the following categories: (1) qualitative methods (2) quantitative methods (3) mixed methods, and (4) others.

Data Collection Method. As for data gathering technique, we adopted and altered Wasike's (2017) coding for data gathering method hence the following categories; (1) case study, (2) rhetoric analysis, (3) content analysis, (4) survey, (5) mixed methods, (6) document analysis, (7) in-depth interviews, (8) secondary data, (9) experimental, (10) phenomenology, (11) ethnography, (12) focus groups, (13) textual analysis, (14) review, (15) Framing analysis, (16) Discourse analysis, (17) Other.

Geospatial Concentration by Continents and Countries

To review the geospatial distribution of fake news focused research, we modified Zheng et al.'s (2016) coding to understand the pattern within fake news focused research, we coded the following categories: (1) Asia (2) Africa (3) Australia (4) Antarctica (5) Europe (6) North America and (7) South America, (8) Others (9) No Continents.

Coding Process

One fake news focused journal article is our unit of analysis. Two researchers in the field of communication and media studies performed the coding for this study. Using Cohen's Kappa coefficient formula (Cohen 1960), results show that on average, agreement between the two researchers occurred at $K = (0.97)$, with the full agreement percent is (1). According to Cohen (1960) and Fleiss (1971), values from (0.81) to (1.00) is believed to be excellent hence ours is highly reliable.

Text-Mining Approach

For the Knowledge Discovery in Database (KDD) aspect of this study, our aim is to facilitate and identify clear and concise patterns from a set of texts (Fayyad, Piatetsky-Shapiro, and Smyth 1996; Hung and Zhang 2012). To do that we adopted NVivo 12 software to run a word frequency search.

Results

Overall, our search result generated 4944 articles and indicative of our including and excluding criteria, out of the search results, the total number of 103 fake news focused articles qualified and were therefore included in our sample frame (See Figure 1).

The first research question focuses on the journals that evaluated fake news focused research between 2000 and 2018.

Overall, a total of fifty-four journals published the one hundred and three fake news focused research within our sample frame. Results show that majority of the journals associated with communication studies welcomed more fake news focused articles (28.1%; $n = 35$) and only seventeen journals associated with media studies published fake news focused research (28.1%). As for journals that are journalism related, result shows that 24.2% of the journals published welcomed fake news focused research ($n = 26$). Finally, only two journals associated with public relations and advertising published fake news focused research (2%; $n = 1$).

Journals that published only one fake news-related article are *Journal of Communication Inquiry*, *Journal of Mass Media Ethics*, *Atlantic Journal of Communication*, *Semiotica*, *Journal of the International Association for Semiotic Studies*, *Journal of Computational Social Science*, *American Behavioral Scientist*, *Newspaper Research Journal*, *Social Science Computer Review*, *European Journal of Communication*, *Journalism & Mass Communication Quarterly*, *The Journal of Social Media in Society*, *Asian Journal of Multidisciplinary Studies*, *Communication Culture & Critique*, *International Journal of Public Opinion Research*, *Journal of Arab & Muslim Media Research*, *Pacific Journalism Review*, *Communication & Society*, *Journal of Risk Research*, *Revista Latina de Comunicación Social*, *Communication Quarterly*, *First Amendment Studies*, *Communication Monographs*, *Journal of Public Relations Research*, *Critical Studies in Media Communication*, *Critical Studies in Media Communication*, *Doxa Communication*, *Palgrave Communications* (27.2%; $n = 28$).

To answer our **RQ2**, Figure 2 shows the progression of fake news focused research published between 2000 and 2018. Results show that no fake news focused research was

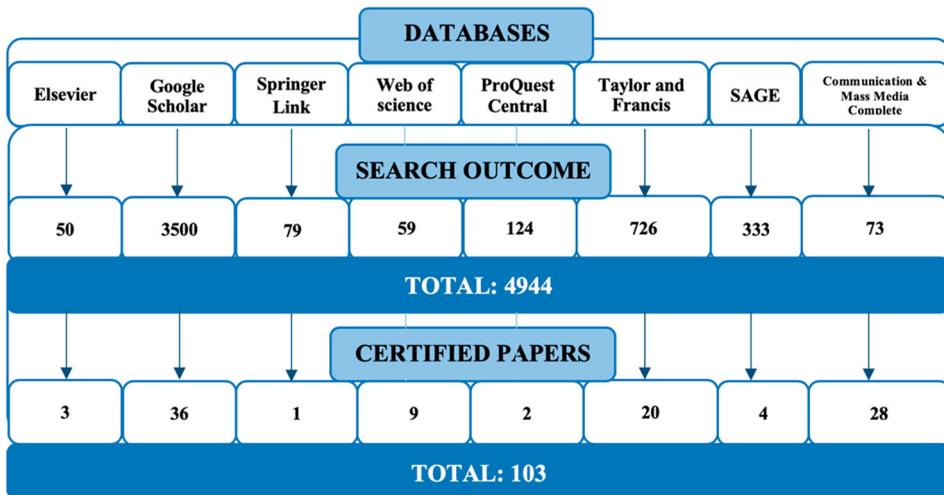


Figure 1. Database search outcomes and certified papers.

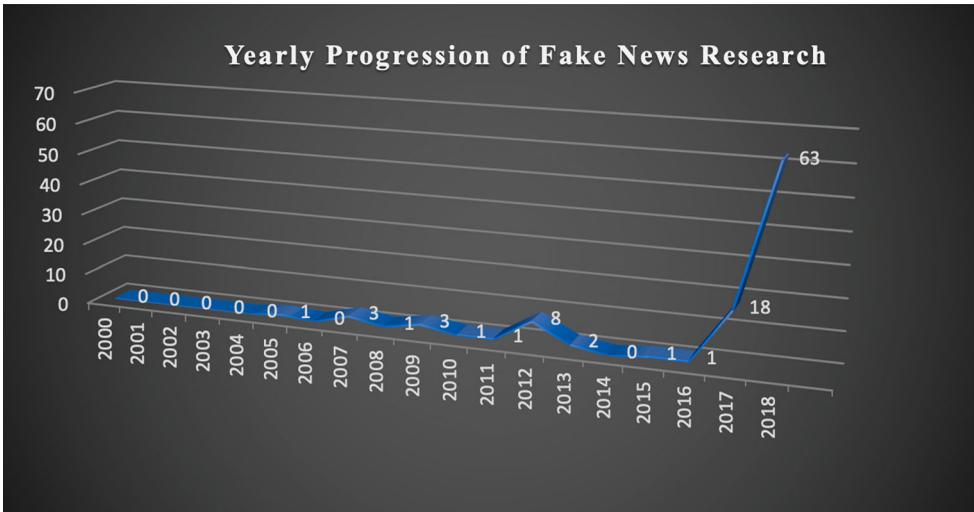


Figure 2. Yearly progression of fake news focused research published between 2000 and 2018.

published between 2000 and 2007 with the exception of 2005 when only one article was published. At least one fake news focused research was published between 2006 and 2018 with the exception of 2014 when no was published. Results show that majority of the fake news focused journal were published in the last two years (2017 and 2018) with the peak in 2018 (61.2%; $n = 63$).

In terms of theoretical contributions of the fake news focused research regarding (RQ3). Table 2 shows that majority of the research articles did not adopt theories (77,7%; $n = 80$).

Table 2. Journals that published fake news focused research.

Journals	Frequency	Percentage
Other	28	27.2
Journalism practice	9	8.7
Popular communication	6	5.8
Digital journalism	6	5.8
Journalism studies	5	4.9
Communication research	4	3.9
New media & society	4	3.9
Asia Pacific media educator	4	3.9
Journal of media literacy education	4	3.9
PLoS ONE	4	3.9
Information communication & society	3	2.9
Social media & society	3	2.9
Computers in human behavior	3	2.9
Communication education	2	1.9
Cosmopolitan civil societies	2	1.9
Journal of media research	2	1.9
Mass communication and society	2	1.9
Javnost—the public journal	2	1.9
American journalism	2	1.9
Journalism	2	1.9
Political communication	2	1.9
Media and communication	2	1.9
International journal of communication	2	1.9
Total	103	100.0

For few studies that did, *Third-Person Effect Theory* and *Agenda Setting Theory* were adopted the most (3.8%; $n = 4$). The following theories; *Discourse Theory*, *Situational Theory*, *Source Credibility*, *Social Identity Theory*, and *Gatekeeping Theory* were also adopted each one was discussed in (5.0%; $n = 5$). Results also show that 13.6% ($n = 14$) of the articles adopted the following theories; *Homophily Theory*, *Issue Ownership Theory*, *Protection Motivation Theory*, *Spectacle Theory*, *Media Connectedness*, *Marketplace of Ideas Theory*, *Inoculation Theory*, *Virtue Theory*, *Actor-Network Theory*, *Game Theory* and *Decision Theory* from other disciplines.

As indicated above, the hypotheses, schemes, suppositions, and fundamental logic of several theories have been used to logically and systematically define fake news and fake news types. For example, Mihailidis and Viotty (2017) used spectacle theory to explore the phenomenon of spectacle in the immediate aftermath of the 2016 U.S. presidential election. The increase in polarization and the circulation of vitriolic views has been attributed to the dissemination of misinformation, the appropriation of cultural iconography, the proliferation of populist rhetoric, and the mainstream media's willingness to perpetuate partisan and polarizing content. Using the frame of spreadable media, the study explored the role of online-initiated citizen expression in sustaining and expanding the media spectacle that pervaded the 2016 U.S. presidential election. Mihailidis and Viotty concluded that media literacy, as a popular response mechanism for cultivating more critical media consumers, must be repositioned to respond to an era of distrust and partisanship.

Schulz, Wirth, and Müller (2018) used social identity theory to investigate the relationships among populist attitudes, perceptions of public opinion, and perceptions of the mainstream news media. The findings were not country-specific. They were likely part of the general populist attitude syndrome. In addition, the study showed the dangerous interactions between citizens' identification of in-groups and their responses to populist claims and mechanisms.

Tandoc et al. (2018) applied source credibility theory to the assessment of audiences' acts of authentication in the age of fake news. The study revealed that the personal perceptions of both the source and the message affect individual interpretations of news, and external resources are sought for authentication only when the news fails to provide enough interpretation. Tandoc et al. discussed the role of subjectivity in source credibility. They found that it is influenced mainly by individual perceptions, which could be affected by several factors. Indeed, a credible source could be perceived as problematic. Moreover, when social media users decide to move to the next step, external authentication, they are still susceptible to misinformation (Tandoc et al. 2018).

Although, the most important finding is that a majority of the research articles on fake news are atheoretical. The aforementioned studies demonstrate the use of theories to explain the fake news phenomenon in various contexts [Table 3](#).

With regard to **RQ4** which focuses on research methodology adopted in the fake news focused research between 2000 and 2018. [Table 4](#) shows that more than half of the articles favored qualitative research method (64.1%; $n = 66$) over quantitative research method (28.2%; $n = 29$) and mixed method (7.8%; $n = 8$) ([Table 4](#)).

Furthermore, for data gathering techniques, results show that 30.1% ($n = 31$) of the fake news focused research did not use any data collection techniques. Those that adopted data collection methods mostly used content analysis and survey (20.4%; $n = 21$); followed

Table 3. Theoretical contributions of fake news focused research.

Theory	Frequency	Percentage
No theory	80	77.7
Other	14	13.6
Agenda setting theory	2	1.9
Third-person effect	2	1.9
Discourse theory	1	1.0
Situational theory	1	1.0
Source credibility theory	1	1.0
Social identity theory	1	1.0
Gatekeeping theory	1	1.0
Total	103	100.0

by textual analysis, discourse analysis, and mixed method (23.4%; $n = 24$). In addition, interviews were adopted by 6.8% ($n = 7$), experimental method by 4.9% ($n = 5$), review by 3.9% ($n = 4$), Amazon's Mechanical Turk (MTurk) by 1.9% ($n = 2$) and case study by 1.9% ($n = 2$) of fake news focused research. The following data gathering methods; document analysis, historical analysis, document analysis was adopted by used by 3.0% ($n = 3$) of fake news focused research. 3.9% ($n = 4$) make up articles that we didn't code; Computer-assisted NAS analysis, social network analysis, cluster and data mining technique, sentiment analysis.

Some articles, such as that by Waisbord (2018), did not specify the data collection methods. This suggests that the phenomenon is indicative of the contested position of news and the dynamics of belief formation in contemporary societies. It represents the breakdown of the existing order regarding old news and the entropy facilitated by contemporary public communication. These developments attest to a new chapter in the age-old struggle regarding the definition of truth: a struggle that includes the government propaganda campaigns, elites, and corporations that compete to dominate news coverage and mainstream journalism's continual efforts to claim to provide authoritative reporting of current events.

Table 4. Methods and data gathering methods of fake news focused research.

Methods	Frequency	Percentage
Qualitative	66	64.1
Quantitative	29	28.2
Mixed	8	7.8
Total	103	100.0
Data collection techniques	Frequency	Percentage
Content analysis	11	10.7
Survey	10	9.7
Mixed method	8	7.8
Discourse analysis	8	7.8
Textual analysis	8	7.8
Interviews	7	6.8
Experimental	5	4.9
Review	4	3.9
Other	4	3.9
Case study	2	1.9
Amazon's Mechanical Turk (MTurk)	2	1.9
Document analysis	1	1.0
Focus groups	1	1.0
Historical analysis	1	1.0
None	31	30.1
Total	103	100.0

With the recent availability of different news outlet options, a return to the normative debate on journalism and democracy, including their validity in the radical new conditions, is crucial. The achievement and preservation of the conventional notions of news and truth, which were based on the standard journalistic practices, are more difficult to achieve amid the destabilization of the previous hierarchical order. Lee (2018) asserted that “fake news, phishing, and fraud: a call for research on digital media literacy education beyond the classroom” emphasize the aspect of the internet that creates individual and societal susceptibility to risks, such as fraud and the spread of misinformation. The target group was adults who were susceptible to many of these risks. Lee asserted that an important strategy for combating such threats is digital media literacy education. Many studies have addressed digital media literacy for children; however, few have discussed effective interventions for adults. Specific suggestions are offered for future research (Table 5).

Regarding our RQ5 which focuses on media genre and platforms that were examined in fake news focused research examine between 2000 and 2018. Results show that traditional media and social media were equally distributed (25.2%; $n = 26$). For traditional media, 16.5% ($n = 17$) of fake news focused research discusses television and 3.9% ($n = 4$). newspapers. For social media, Twitter accounts for 10.7% ($n = 11$), Facebook accounts for 7.8% ($n = 8$) and WhatsApp accounts for 1% ($n = 1$) of fake news focused research. Other fake news articles focused on more than one genre (2.9%; $n = 3$), or platform (7.8%; $n = 8$).

Results show that 23.3% ($n = 24$) of the fake news research focused on digital media platforms such as; Online news websites (6.8%; $n = 7$), Google (1%; $n = 1$), Wikipedia (1%; $n = 1$), websites of traditional media (4.9%; $n = 5$).Result also shows that some articles did not investigate any media genre (23.3%; $n = 24$) or media platform (38.8%; $n = 40$).

The article summarized the main features of fake news in Australia as manifested in two television programs: *The Norman Gunston Show* and *Newstopia*. The historical overview of fake news in Australia placed it within a wider culture of what Turner (1989) termed “transgressive television.” The main humorous themes, styles, and intertextual similarities of the

Table 5. Media genre and platforms of fake news focused research.

Media genre	Frequency	Percentage
Traditional media	26	25.2
Social media	26	25.2
Digital media	24	23.3
No media genre	24	23.3
Multiple media genre	3	2.9
Total	103	100.0
Media platforms	Frequency	Percentage
Television	17	16.5
Twitter	11	10.7
Facebook	8	7.8
Multiple media platforms	8	7.8
Online news websites	7	6.8
Websites of traditional media	5	4.9
Newspapers	4	3.9
Wikipedia	1	1.0
WhatsApp	1	1.0
Google	1	1.0
No media platform	40	38.8
Total	103	100.0

two shows were analyzed. The study concluded that despite the charade of top-notch imagination or fantasy rather than facts in the Australian news, the viewers' understanding of the use of generic devices that guide "real" television news could be influenced (Harrington 2012).

Google's control of the internet allows it to set standards for Internet capitalism. Its activities and revenue-generation model are often overlooked in academic research on the effects of its search engine. Approximately 90% of Google's revenue comes from advertising, notwithstanding Larry Page's and Sergey Brin's original thesis. Their different positions on Google's advertising model highlight and promote the increasing changes in capitalism as it has moved from invention to modern post-Fordist labor arrangements. This article provides an overview of Google's two major advertising systems, AdWords and AdSense. In addressing AdWords, the article analyzed the global-domestic tensions that evolved from tracing chains of information and capital and emphasized Google's effects on the decline of online heterogeneous language. The analysis of AdSense showed how Google's domination has resulted in its control of the aspects of the internet that are commercialized and those that are not profitable. Specifically, the studies suggested that the relationship between Google and Facebook contributed to the rise of fake news in the 2016 U.S. presidential election. This article, which extended the work of previous studies to show the far-reaching effects of Google's economic dominance, is valuable to scholars. Therefore, it is postulated as a discursive preamble to the topic and does not require specific disciplinary knowledge. No conclusions were made about Google's relationship with digital capitalism. Instead, the article discussed the profitability resulting from a post-Fordist view (Graham 2017).

Although *Saturday Night Live's* "Weekend Update" has become one of the most iconic satirical news programs. The segment has been shaped by a series of hosts who became famous by developing distinctive comic personalities. In contrast to the more politically invested contemporary programs, the genre of fake news on *Saturday Night Live* has been largely emptied to serve the larger needs of the series: maintaining its status as topical, trendy, and unthreatening enough to attract celebrities and politicians as well as a mass audience.

As shown in Figure 3, majority of the fake news focused research that investigated traditional media platforms were published in the following years; 2005 (3.8%; $n = 1$), 2007 (11.5%; $n = 3$), 2008 (3.8%; $n = 1$), 2009 (11.5%; $n = 3$), 2010 (3.8%; $n = 1$), 2011 (3.8%; $n = 1$), 2012 (26.9%; $n = 7$), 2013 (7.7%; $n = 2$) and 2018 (26.9%; $n = 7$). Furthermore, majority of the fake news focused research that investigated social media (76.9%; $n = 20$) and digital media (66.7%; $n = 16$) were published in 2018.

Regarding RQ6 which focuses on the geospatial distribution of fake news focused research published between 2000 and 2018, results show that majority of the articles focused on issues in North America with half of all studies focusing on U.S.A (50.5%; $n = 52$). Europe is the second continent with the highest concentration of fake news focused research with 16.5% ($n = 17$) with the UK as the highest (3.9%; $n = 4$). Other European countries with two fake news focused research are Romania, Ukraine, Belgium with 1.9% ($n = 2$) for each. Italy, Spain, France recorded only 3% ($n = 3$) of fake news focused research.

The third continent with the highest concentration of fake news focused research is Asia with 6.8% ($n = 7$) articles; Singapore recorded the highest with 1.9% ($n = 2$) of the

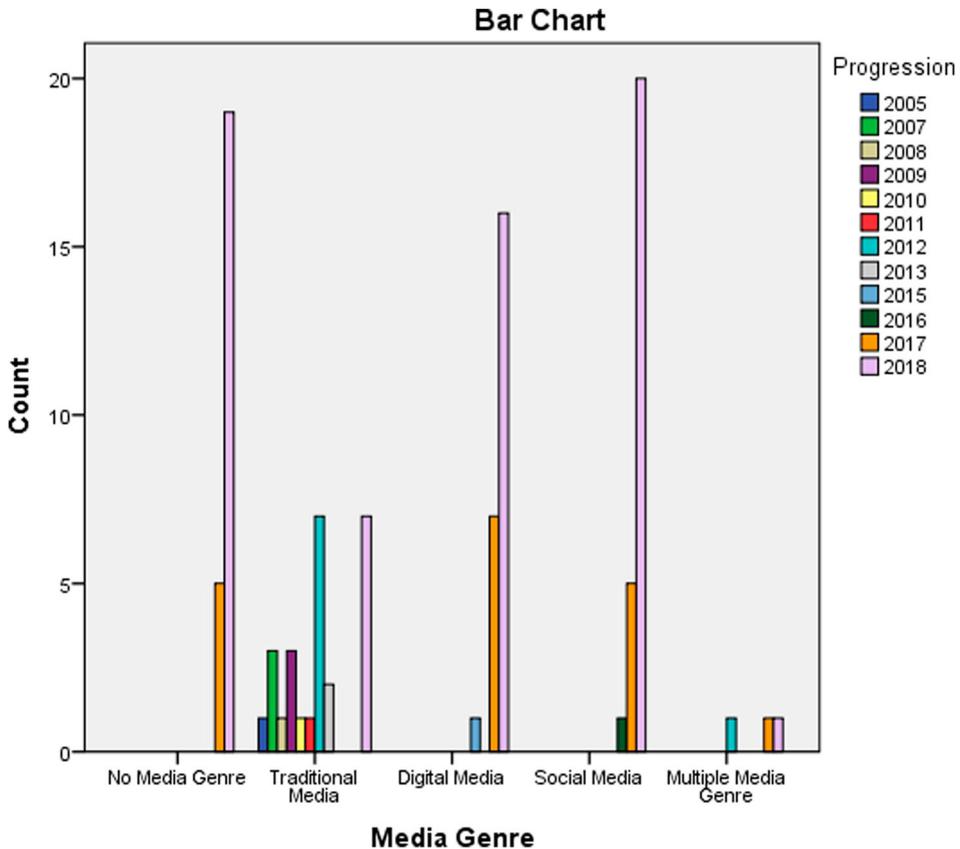


Figure 3. Media genre and yearly progression cross-tabulation.

articles while India, Russia, Philippine, Israel, South Korea had 5% ($n = 5$) of the articles. Other continents with fake news focused research are Australia (2.9%, $n = 3$), Africa with (1.9%; $n = 2$) and South America (1%; $n = 1$). In addition, 11.7% ($n = 12$) of the study sample did not focus on any continent or country, mostly, these kinds of articles focus on the definitions, typologies, history and prospects of the fake news (Table 6).

Relationship between Media Genre, Media Platforms, Methodologies and Data Collection Techniques

The researcher conducted crosstab to investigate the relationships between media genre and methodologies as well as its relationships with data collection techniques, and also media platforms and methodologies. Firstly, we found that majority of the fake news focused research that's relevant to the research paper that investigated traditional media genres and platforms used qualitative methodology (30.3%; $n = 20$). Similarly, digital media were investigated mostly by qualitative method (22.7%; $n = 15$). However, fake news focused research that investigated social media genres and platforms used mostly quantitative methods (44.8%; $n = 13$) while qualitative methods (15.2%; $n = 10$). Majority of fake news research that did not investigate media genres and platforms used qualitative methods (28.8%; $n = 19$).

Table 6. Geospatial distribution of fake news focused research.

Continent	Frequency	Percentage
North America	52	50.5
Europe	17	16.5
No Continent	12	11.7
Asia	7	6.8
Other	9	8.7
Africa	2	1.9
Australia	3	2.9
South America	1	1.0
Total	103	100.0
Country	Frequency	Percentage
No Country	12	11.7
USA	52	50.5
Australia	3	2.9
UK	4	3.9
Romania	2	1.9
India	1	1.0
Ukraine	2	1.9
Other	14	13.6
Tonga	2	1.9
Belgium	2	1.9
Italy	1	1.0
Spain	1	1.0
France	1	1.0
South Korea	1	1.0
Singapore	2	1.9
Israel	1	1.0
Philippine	1	1.0
Russia	1	1.0
Total	103	100.0

Secondly, majority of fake news focused researches relevant to the research paper that investigated traditional media platforms did not use data collection technique (30.8%; $n = 8$). However, a larger number of them used textual analysis (23.1%; $n = 6$) followed by discourse analysis (15.4%;4) and lastly survey (11.5%; $n = 3$). For digital media, majority did not use data collection technique (22.6%; $n = 7$), however, majority of those who did used mixed methods (12.5%; $n = 3$). For social media, most studies did not use data collections technique (16.1%; $n = 5$), but those who did majorly used content analysis (26.9%; $n = 7$), followed survey (15.4%; $n = 4$) and then case study (7.7%; $n = 2$). Lastly, majority of the fake news focused researches related to the research paper that used qualitative methods investigated mostly no media platform (73.7%; $n = 28$), followed closely by Television (76.5%; $n = 13$) and lastly Facebook and online websites of traditional media (7.6%; $n = 5$). For studies that used quantitative methods, they mostly investigated Twitter (31.0%; $n = 31$), followed by no media platforms (24.1%; $n = 7$), then television and Facebook (13.8%; $n = 4$) and (10.3%; $n = 3$) respectively.

Text-mining of Fake News Focused Research

The word tag cloud diagram in [Figure 4](#), is a sophisticated technique used in discovering and exploring word frequency by arranging the frequency of words in a descending order making the largest words, the most frequently used words (Zubair Haider and Dilshad 2015). [Figure 4](#) presents the word frequency of fake news focused articles.



Figure 4. Word frequency of fake news focused articles (Top 100 words).

As shown in [Figure 4](#), [Table 7](#) presents the ordered arrangements of the most repeated words in fake news focused research published between 2000 and 2018 in a clear and concise manner.

[Table 7](#) presents answers to RQ7, “what are the most frequent terms used in fake News focused research?” Nvivo’s word frequency distribution shows that the three most repeated words are “news,” “media” and “fake” (4.77%). Other words in the top thirty words are; *Social, Political, Information, Public, Communication, Research, Fact, 2018, Trump, Content, Press, Facebook, Journalists, Digital, Users, Election, Twitter, Post, Discourse, Truth, Different, Effects, Society, Misinformation, Audience, False* and *American*.

To understand the context of fake news research, each context has been classified in six major categories based on the most frequently used words which explain the contexts that were discussed in the articles. This process produced the following distinct categories: “Fake, News, Politics, Digital & Social media, Influencing Public opinion and American Elections.” Although these categories do not directly come from fake news definition, they represent some of the main issues within the fake news focused research and discourse. Therefore, it should be noted that majority of fake news focused articles overlap across different categories ([Table 8](#)).

Table 7. Word frequency distribution (Top 30 words).

Word	Length	Count	Weighted percentage
News	4	10,757	2.27%
Media	5	6658	1.40%
Fake	4	5205	1.10%
Social	6	2742	0.58%
Political	9	2737	0.58%
Information	11	2433	0.51%
Public	6	1704	0.36%
Communication	13	1613	0.34%
Research	8	1490	0.31%
Fact	4	1231	0.26%
2018	4	1208	0.25%
Trump	5	1153	0.24%
Content	7	1137	0.24%
Press	5	1099	0.23%
Facebook	8	1006	0.21%
Journalists	11	983	0.21%
Digital	7	797	0.17%
Users	5	726	0.15%
Election	8	719	0.15%
Twitter	7	717	0.15%
Post	4	692	0.15%
Discourse	9	688	0.15%
Truth	5	682	0.14%
Different	9	666	0.14%
Effects	7	644	0.14%
Society	7	623	0.13%
Misinformation	14	609	0.13%
Audience	8	560	0.12%
False	5	558	0.12%
American	8	556	0.12%

Generally, important findings emanated from the topic modeling process. Firstly, it indicated that fake news have been studied under the communication field and from communication perspective (Marshall 2017; Bennett and Livingston 2018). Secondly, fake news have been studied from the journalism practice point of view, how it affect journalism as a discipline and profession dealing with Fact-checking and the ways that we should face and investigative in the age of “Post-Truth” journalism (Carson and Farhall 2018; Palau-Sampio 2018; Tandoc, Jenkins, and Craft 2018). Similarly, It also highlighted the Ethical side and Lessons that we should learn from “Fake” News (Borden and Tew 2007). In additional, it discusses the phenomenon of fake news from Journalism Education angle and how communication college are dealing with it (Meddaugh 2010; Bhaskaran, Mishra, and Nair 2017). The insights derived from analysis of the words telling us that many studies have discussed and investigated the term “fake news” itself and trying to find the real, holistic, and new definitions for it. Such as finding a typology of fake news of scholarly definitions and the differences between fake and other news (Brewer, Young, and Morreale 2013; Finneman and Thomas 2018; Tandoc, Lim, and Ling 2018). In addition to reviewing the history of fake news such as (Gorbach 2018) and investigating a verification tool for fake news (Ciampaglia 2017; Pino 2017).

Furthermore, the Political implications of fake news and its impact on public opinion agenda for specific interests and goals was a main trend within the fake news research such as (Khaldarova and Pantti 2016; Brummette et al. 2018). This helps in achieving the power and hegemony of political parties (Farkas and Schou 2018). In the same context,

Table 8. Major categories/themes of fake news focused research.

Category	Definition	Related terms
1. Fake	Expresses the main perspective of the fake news research that discusses the news reports that are considered as fake.	"fake," "satire," "disinformation," "deception," "information," "fact," "truth," "misinformation," "false," "trust," "credibility," "rumors," "hoax."
2. News	Expresses the specific type of information which is the fake news.	"report," "communication," "content," "press," "media," "journalists," "digital," "television," "mainstream," "coverage," "newspaper."
3. Politics	Studies the fake news from political aspects or perspectives or its political and ideological impact.	"government," "political," "international," "power," "parties," "politicians," "democracy," "agenda."
4. Digital & Social media	Studies fake news that published and speeded through digital and social media genres and platforms.	"Facebook," "digital," "twitter," "users," "post," "network," "google," "websites," "internet," "tweets," "technology," "platforms."
5. Influencing Public opinion	Explains the studies that discussed the impact and influence of the fake news in the society and research fields.	"audience," "mass," "influence," "attitudes," "impact," "culture," "public," "effects," "society."
6. American Elections	Expresses the focus of many studies on the American elections and the use of fake news during it especially 2016 elections, which is considered the new start of fake news phenomenon.	"trump," "election," "American," "2018," "president," "campaign," "Washington," "Whitehouse," "Cambridge," "Russian."

many studies were concerned with U.S presidential elections especially the one held in 2016, in terms of using fake news tactics and types; social and digital media. Many studies investigated media theories on the case of U.S elections (Carlson 2018; Guo and Vargo 2018). It also indicated to the use of big data analysis to serve the fake news distribution and impact to the Americans emotions and attitudes (Bakir and McStay 2018; Vargo, Guo, and Amazeen 2018). Regardless of the wide range of the fake news focused research, there is a lack of the research that focused on the third world countries investigating important case studies.

Discussions and Conclusion

The present study explored the research on fake news from 2000 to 2018 through a content analysis of articles published in eight databases. *Journalism Practice*, *Popular Communication*, *Digital Journalism*, and *Journalism Studies* were found to be the journals with the most publications on the subject. Regarding progression, 2017 and 2018 were the years with the highest number of publications. At least one study on fake news was published each year from 2006 to 2018. The exception was 2014. A majority of the articles were atheoretical. In the few studies that were not, agenda setting and the third-person effect were the most frequently used theories. A majority used qualitative research methods, and surveys and content analysis were the most frequently used data gathering methods.

In terms of distribution, many of the studies were published in reputable media and communication journals. Of the 22 journals with more than two studies on fake news, 10 were indexed in the Social Sciences Citation Index (SSCI), four in the Emerging Sources Citation Index (ESCI), two in SCOPUS, two in EBSCO, and one in Cambridge Scientific Abstracts. An essential finding was the progression of the research. Since 2016, the

number of studies on fake news has increased substantially. The reason seemed to be Trump's demonization of the American press, which is stimulated largely by the internet and participatory media. Vasu et al. (2018) stated: "Fake news is not new—consider for example the role played by the rumour of tallow and lard-greased cartridges in the Sepoy Mutiny of 1857 in India" (4). Thus, it is not surprising that the research on fake news in the sampling frame dates back to the 2000s.

The recent sudden increase in fake news suggests the presence of features that were not necessarily in the older kinds of fake news. This has been attributed to the internet, which has driven the changes in the media landscape. One of the main reasons for the current growth of fake news lies in the scale and complexity of the production of news and the speed and effectiveness of its dissemination to a large heterogenous audience in multiple locations (McGonagle 2017). According to McGonagle (2017), "Technology has made it easy for a wide range of actors to create content, including fake news, in a variety of formats—text, photos, videos, infographs, memes, bots, gifs, etc. and to disseminate it swiftly and globally" (206). Comedic and satirical news shows, such as *Last Week Tonight with John Oliver*, *Late Night with Seth Meyers*, *The Late Show with Stephen Colbert*, *The Daily Show with Trevor Noah*, and *The Other news with Okey Bakassi*, are known around the world for criticizing fake news, and they continue to gain prominence because of the internet.

The studies were equally distributed across media genres and platforms (traditional, digital, and social media). Television and Twitter gained more scholarly attention. Regarding geospatial distribution, the results indicated that a majority of the articles focused on North America, especially the United States.

It is worth noting that a majority of the studies were atheoretical. A majority of the current meta-analyses in media and communication studies have raised concerns about this issue (Edeani 1995; Li and Tang 2012; Zheng et al. 2016; Wasike 2017). Placing the findings of this study in the larger context of mass communication meta-analysis, we see that only seven of the 153 articles in Edeani's (1995) meta-analysis adopted theories. In their meta-analysis on Asian communication technology research, Zheng et al. (2016) found that few studies were undergirded by theory.

The present study found that qualitative methods were used more frequently than quantitative methods, such as content analysis and surveys. The findings were consistent with those of Li and Tang's (2012) mass communication meta-analysis on China. They found that qualitative methods were most frequently adopted by mass communication researchers.

The present study found that a majority of the articles equally explored fake news in digital, social media, and traditional media. This was likely "due to the increased role of the Internet in modern societies, topics regarding misinformation and manipulation in online environments seem to be subject to progressively more public debate and interest, including from the traditional media" (Cunha et al. 2018, 14). Pangrazio (2018) stated: "While bias in the news is not new, the opportunities brought about by the democratization, monetisation and circulation of 'news' via digital platforms has brought this issue to a critical point, highlighted by Trump's surprising election victory" (7). Indeed, social media platforms have facilitated the dissemination of fake news because of their range and elimination of space and time constraints.

Another key finding of this study was related to the most frequently used words: "news," "media," and "fake." This was not surprising. According to McGonagle (2017),

“‘fake news’ is a very catchy term. It trips off the tongue. The economy and simplicity of the two-word combination make it a real buzz-word and a soundbite” (204). Given the unprecedented 365% increase in its usage through 2016 to 2017, the term fake news was selected as the Collins Word of the Year for 2017.⁶ Similarly, in 2016, the *Oxford English Dictionary* declared “post-truth,” which is obviously a product of the fake news phenomenon, its word of the year.⁷

This study and that of Comfort and Park (2018) found that a preponderance of the articles focused on issues, people, and phenomena in and around North America, especially the United States. The present study found that the main reason was the resurgence of the term fake news during the 2016 U.S. presidential election. Elega and Özad (2018) attributed this focus on the United States to funding priorities: factors “such as access to research funding from the government and organizations (local and foreign), the availability of consultancy services, research institutes and so on, are instrumental to this state of affairs” (13). Matthews (2012) asserted that the American “federal government has been the primary source of funding for basic research at colleges and universities. In FY 2008, the federal government provided approximately 60% of an estimated \$51.9 billion of R&D funds expended by academic institutions” (7). Matthews added that in 2008, U.S.-based scholars authored 43% of all co-authored journal articles.

It is clear that fake news has been prevalent in the United States; however, it is also present in other parts of the world. Wasserman (2017) stated the following: “The moral panic about ‘fake news’ has not been limited to the United States but has formed the backdrop and discursive reference point for debates about the impact of the spread of similar fabrications on politics in South Africa” (3). In South Africa, the term has been used to describe a range of issues: from “accusations directed at mainstream news organizations to ‘paid Twitter’ accounts to spoof websites which themselves display a range of different approaches and tonalities” (Wasserman 2017, 10).

In conclusion, this paper has provided an empirical review of the journals, progression, theories, methodologies, media genres and media platforms, most frequently used words, and the geospatial distribution regarding the research on fake news from 2000 to 2018. The study thus helps researchers to understand the patterns, progression, and deficits in the research on this topic.

Limitations and Recommendations for Future Studies

This study has limitations. First, as was previously mentioned, fake news is not a new term or phenomenon; however, its origins are unclear. The examination of only 18 years of scholarship cannot fully explain the state of the art; therefore, the period under review is a limitation. A second limitation is the sample, which was smaller than those of previous meta-analyses on media and communication studies (Zheng et al. 2016; Wasike 2017; Hanusch and Vos 2019). The reason was that only the databases available at Eastern Mediterranean University’s Online Bibliographic Databases were searched. In addition, only one keyword, “fake news,” was used; thus, studies with other predominant keywords were missed.

The main limitation of this study is the exclusive focus on articles that used the term fake news. However, several studies have used terms such as “disinformation,” “misinformation,” “propaganda,” “manipulation,” “junk news,” and “hoax news,” which are related to

the subject of the study. However, they have not received much scholarly attention. It is possible that they were not mature enough to be studied. Another limitation is the focus on media and communication studies. The methodological rationale for the study is robust. However, rich scholarly insights on the concept of fake news can also be gained from studies in other fields.

Despite these limitations, this study makes important contributions to the literature. In examining the progression, theories, methodologies, media genres and platforms, most frequently used words, and geospatial distribution of the research on fake news from 2000 to 2018, it provides insights into areas that have been understudied and those that have received considerable attention in journals.

Despite these significant contributions, it must be noted that although many journals, for example, *Journalism Practice* seemed to be more receptive to research on fake news, our study found no evidence of such interest in some of the most reputable globally oriented journalism journals, such as *Journalism*, and regionally focused journals, such as *British Journalism Review*, *African Journalism Studies*, and *Brazilian Journalism Research*. This is mostly correlated with the results of the geospatial distribution of fake news research. Africa and South America were some of the regions in which research on fake news had not been conducted. This suggests that fake news could be a rich area of study in these regions.

Given the limited scope of this study, scholarship focused on specific regions is recommended. For example, Wasserman (2017) explores that a range of approaches in what is considered fake news in South Africa. In the future, previous research could be extended or replicated to explore the fake news typologies in various societies. Furthermore, as stated by Jankowski (2018), the exploration of “news production, reception and message,” as well as “the context in which fake news operates (e.g., social, cultural and historical; country and political system; and type of events such as election or public discussion of issues) is of importance” (252).

Future studies should also focus on regions such as Africa, especially South Africa and Nigeria, the two largest economies, which are also among the biggest democracies in Africa. Studies should explore the Middle East. Areas such as topical events, issues, and people (e.g., the Arab Spring, Jamal Khashoggi, Iran–United States tensions, and the Palestinian–Israeli conflict) could yield valuable information. Such studies should use quantitative and mixed methods and data collection techniques other than surveys and content analysis.

The upward trend over the last two years (2017 and 2018) of the study period and the media attention on fake news have contributed to the increasing scholarly attention. According to Jankowski (2018), in the field information and communications, several methods are being developed to identify fake news. Ozbay and Alatas (2020) proposed a two-step technique for detecting fake news on social networking sites. Tolosana et al. (2020) went a step further to explore the techniques used for manipulating photographs of faces for deepfakes, a new type of content that can be used for fake news.

This meta-analysis can provide a solid framework for future studies. To facilitate a deeper understanding of the topic, a growing area, studies should explore fake news at the macro level. Traditional themes and issues in critical media and communication studies could be addressed. This includes the political economy of fake news, the effects of fake news on media organizations, the use of fake news in political campaigns, and the benefits of fake news to advertising, marketing, and media conglomerates. According to Hirst (2017), the political economy perspective “has a long and political history that is dialectically bound to the

commodity form of journalism in a capitalist market economy” (86). Allcott and Gentzkow (2017) discussed the need to counter the theorization of fake news as misrepresented messages with unfound relationships to events, people, and issues.

“Fake news is created for a variety of reasons; some are purely commercial—for the clicks and others are highly political—for propaganda effect. Both involve the deliberate deception of the news-consuming public, and this is what unites them” (Hirst 2017, 86). A micro-level approach to the study of audience practices and participation in consuming, sharing, believing, and legitimizing fake news could be facilitated by data collection techniques, such as interviews, case studies, and focus groups. As Jankowski (2018) stated:

The study of news reception is equally rich and concerns of some of the classic studies remain relevant when exploring the reception of fake news: attention to fake news, recall of news items, assessment or believability of the news and possible actions (or, more generally, effects) resulting from attention to fake news. (252)

This study recommends the examination of other important variables that are necessary for providing an in-depth understanding of the scholarship on fake news. Author affiliations and the previously discussed fake news categories defined by Tandoc et al. (2018) should be explored.

Notes

1. <https://www.theguardian.com/us-news/2017/mar/25/comet-ping-pong-alex-jones>
2. <https://www.forbes.com/sites/kalevleertaru/2017/02/17/did-facebooks-mark-zuckerberg-coin-the-phrase-fake-news/#5c09a5666bc4>
3. <http://www.politico.com/magazine/story/2016/12/fake-news-history-long-violent-214535>
4. <https://grassrootjournalist.org/2017/06/17/what-is-fake-news-its-origins-and-how-it-grew-in-2016/>
5. <http://www.politico.com/magazine/story/2016/12/fake-news-history-long-violent-214535>
6. <https://www.collinsdictionary.com/woty>
7. Editor, fakenews About “fakenews”—The Media Performance Pyramid, Media Lens, http://medialens.org/index.php?option=com_acymailing&ctrl=archive&task=view&mailid=417&key=c9c76729c25a0540089ebc0e179a2195&subid=8761-a3c0ca38955a6fb3114e3777915498_81&tmpl=component,19April2019 (accessed 19April 2019)

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