

Research Trends in Social Media Role in Political Campaigns: A Bibliometric Analysis

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Abstract

Despite their increasing ubiquity in people's lives and incredible advantages in instantly interacting with others, social media's impact the political debate and its perception among citizens which is a source of concern worldwide. The present study was conducted to review the extant literature in the domain of social media and political campaigns scholar productivity. Bibliometric analysis was conducted on 265 articles that were extracted from the Scopus database. The data were then uploaded to VOSviewer software to analyze citations, co-citations, and keyword co-occurrences. Volume, growth trajectory, geographic distribution of the literature, influential authors, intellectual structure of the literature, and the most prolific publishing sources were analyzed. Our bibliometric analysis shows that the US, the UK, and India accounted for 59% of the publications in this field and we identified four clusters of studies the first: Media and Political Advertising have authors who have extensively published on the consequences of political advertising in legislative and presidential elections, political campaigns communication scholars who instead highlight political campaigns communication, online misinformation and privacy issues scholars who writes about techniques regarding online deception and politics and social movements specialists focusing on the expanding significance of minorities' rights in social media. Most of the studies used mixed methods in analyzing data. Limitations as well as research directions for future studies are discussed as well.

Highlights

- The Bibliometric analysis showed that there are significant research gaps concerning the use of social media by political players, such as a lack of comparisons between countries, platforms, different types of actors, and both election and non-election times.
- Surprisingly no studies from China were present in the database examined, even though China has the highest number of social media users
- Only three qualitative studies have been conducted in this field within our database while majority of research were quantitative in nature.

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- The findings showed that research points out that political expression on social media depends on the number of friends who post about politics and the congruence or incongruence of the political material with one’s political ideas
- Effective examination of political social media usage necessitates techniques beyond those often employed for textual media, hence increasing the necessity for visual methodologies and multidisciplinary research.

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Introduction

Social media are becoming a vital part of any modern political campaign (Bimber, 2014). It facilitates the micro-targeting of audiences believed to be most receptive to their message while providing efficient techniques for reaching broader audiences. In recent years, the possible negative impact stemming from this form of communication on the

democratic discourse, particularly in regard to elections and referendums, has become a source of concern (De Boer, Sütfield, & Groshek, 2012; Kirk & Teeling, 2022; Matz, Kosinski, Nave, & Stillwell, 2017b). In particular, studies on the 2016 US presidential election and the Brexit vote in the same year demonstrated that the internet environment for political advertising is very open to manipulation by a variety of unregulated entities. Numerous instances of problematic advertising activities, both in terms of volume

and sponsorship disclosure, were uncovered (Zuiderveen Borgesius et al., 2018).

Microtargeting and digital political advertising were also observed in Europe. During the 2017 German federal election campaign and the 2019 European election campaign, German political parties invested in Facebook and Google digital advertising. In 2017, the Left (Die Linke), the Greens (Die Grünen), and the Free Democratic Party (FDP) each invested a total of 500,000 euros (Scherfig, 2017). In 2019, German parties spent up to 558,001 euros on digital advertising; for example, the Christian Democratic Union (CDU) paid 296,001 euros on Facebook ads and 261,200 euros on Google ads (Serrano, Shahrenzaye, Papakyriakopoulos, & Hegelich, 2019).

Our objective with this study is to examine the scholar production on the relation between social media in the context of elections and political campaigns. We intend to contribute to current studies on political campaigns promotion through new media by gaining a thorough understanding of what the scholar production has investigated and discussed so far in order to identify literature gaps and recognize future research avenues in this field. By analyzing prior research in the domain of social media and political campaigns, we elaborated on how electoral behavior may be influenced over time, from the initial assessment of one's goals when using social media, to political message exposure, to political targeting, to subsequent privacy considerations and behavioral commitments (Schäwel, Frener, & Trepte, 2021).

In light of these factors, the present study was done to survey the existing literature in the field of social media and political campaigns and assess the global research output. The study provides a bibliometric summary of the most prominent trends in relation to "social media" and "political campaigns". In addition, the purpose of this review is to highlight the major themes around which research has evolved to provide direction for future academic investigation. In order to achieve these aims, this paper focuses on answering the following research questions:

1. What is the current volume, growth trajectory and geographic distribution of the literature on social media and political campaigns research?
2. What are the most important theme areas in the research on social media and political campaigns?
3. What are potential future research gaps in the realm of social media and political campaigns?

Literature Review

Microtargeting is a special type of advertising tool used by social media platforms, it involves the collection, analysis, and processing of behavioral (e.g., website visits), sociodemographic (e.g., gender, age) and network (e.g., communication partners) data (e.g., time and location of a message) (Dobber & Vreese, 2022; dos Santos & dos Santos, 2022). This information is used to identify comparable user groups (Schäwel et al., 2021). Then, these groups are exposed to communications tailored to their anticipated preferences and requirements (Beer, Dandamudi, Mandrola, Friedman, & Vijayaraman, 2019). Online political microtargeting is a form of personalized communication including the collection of information about individuals and their display of customized political adverts. Political parties employ microtargeting because they believe it increases the effectiveness of advertisements. Such advertisements can address topics that are significant to an individual, customizing their format and language to the individual's needs and interests for optimal impact. It is more likely that recipients of focused political information will act on it. Microtargeting for political purposes may be both a boon and a bane for democracies (Borgesius, Möller, Kruikemeier, Fathaigh, Irion, Dobber & de Vreese, 2018). It could improve voter turnout and increase their knowledge of particular issues. However, microtargeting carries hazards. For instance, a political party could misrepresent itself to various persons as a single-issue party. Furthermore, microtargeting data collecting poses privacy problems. This type of collected behavioral data is frequently enriched and aggregated with psychometric details, making it possible to match advertisements to users' personalities, which can increase persuasiveness and influence actual behavior (e.g., 50% more product purchases after matching the appearance of a product ad to users' personalities; (Matz, Kosinski, Nave, & Stillwell, 2017a). Psychometric measures are either derived from paralinguistic features or supplied by users. For instance, people may voluntarily complete personality tests on Facebook (e.g., myPersonality App), which firms utilize to integrate diverse data types and sources. Consequently, psychological targeting is frequently integrated with behavioral targeting in political campaigns.

Political parties that seek to inform, direct, and persuade potential voters employ microtargeting in both pre and post-election phases. However, this is not obvious to social

media front-end users. Frequently, targeted information is misunderstood as traditional social media content or even as independent news. A mere one-third of social media users are aware of political targeting (Dobber & Vreese, 2022). Even if users are aware of political targeting practices, they cannot hide their posts and profiles from psychological and behavioral profiling. Therefore, they may experience the potentially unsettling sensation of being objectified and allocated to a cluster. By defining target groups, it is feasible to address the political attitudes, needs, and fears of consumers (Schäwel et al., 2021). The advantages of microtargeting for political parties are the increased likelihood of meeting voters' individual expectations, resource efficiency, and staying competitive with rival parties (König, Uphues, Vogt, & Kolany-Raiser, 2020; Zuiderveen Borgesius et al., 2018).

This approach raises unethical questions as in a negative scenario, democratic processes might be harmed when political parties share only parts of their political platforms with voters who are likely to support those platforms, and other fragments with another audience segment (Zuiderveen Borgesius et al., 2018). In addition to being unfair, this behavior undermines the shared knowledge foundation of society and contributes to a fragmented public sphere. However, technology is neither bad nor good of itself. The powerful potential of microtargeting could potentially serve the public good if it were employed with this intent. There is abundant study and discourse on how social media participation strengthens democracy (König, (2020); Sunstein, 2018; Kumar & Kodila-Tedika, 2019; Martens et al., 2018). For instance, it could be remarkably efficient at conveying to citizens helpful messages about healthy living, safe driving, and other social values that can tremendously benefit society. In this view, data-driven political micro-targeting has the potential to improve political literacy and the functioning of deliberative democracy by incentivizing deliberative discourse among interested and engaged voters. However, even in this instance, non-targeted persons are excluded from the conversation without the option to engage, unless adequate procedures are taken to permit their participation. At the heart of the matter is the paternalistic discrimination between citizens, which decides for them whether or not they should receive specific information (Thaler & Sunstein, 2008).

Political micro targeting was especially evident during Barack Obama's 2008 election campaign, when the campaign team analyzed data sets from approximately 150

million people and divided them into interest groups that could be specifically targeted through various channels, including email, social media advertisements, and home visits, although this practice received little public attention at the time (Graf, 2022). Then, after Donald Trump was elected president of the United States in 2017, it was revealed that the British political consulting firm Cambridge Analytica used Facebook user data to create psychometric personality profiles for more than 50 million individuals to be used in microtargeting during Trump's campaign (Beuth & Horchert, 2018). Christopher Wylie, a whistleblower and former Cambridge Analytica employee, leaked background information in the spring of 2018 on how Cambridge Analytica had put up a vast network of websites and blogs to target voters with precisely customized information (Fagan, 2021). This approach was also used in the 2017 elections in UK, France, Germany, Netherlands and Italy. All of these elections used some form of microtargeting, indicating the moment when the extremely inventive and unregulated US context-developed micro targeting tactics theta were being transferred to all different types of political systems across Europe, and ultimately around the globe. In the 2018 Brazilian presidential election, Jair Bolsonaro, a congressman from the extreme right, was elected despite his radical speech. One of the reasons for his election victory is that his campaign utilized digital channels to engage directly with diverse segments of the population. Bolsonaro's campaign capitalized on the usage of WhatsApp and other digital platforms to bolster conservatism. The radicalisation of Brazilian politics may be partially explained by the use of political micro-targeting in a highly concentrated news media ecosystem and zero-rating policies that fuel WhatsApp's growth, a medium that facilitated the dissemination of misinformation. During the 2018 Malaysian elections, thousands of bots unexpectedly appeared to propagate pro-government news (Seiff 2018). In the 2017 Philippines elections, trolls were discovered spreading harassment and propaganda in support of presidential candidate Rodrigo Duterte (Etter 2017). Digital disruptions extended beyond elections. In India, seven people were murdered by a mob after they were falsely accused of child trafficking via WhatsApp (Goel 2018). Facebook contributed to the propagation of hate speech and incitement to violence against Rohingya Muslims in Myanmar (Barron 2018). Facebook-spread false reports incited violence against Muslim minorities in Sri Lanka (Goel, Kumar, and Frenkel 2018). In Bangladesh, eight individuals were lynched by a

mob due to false accusations of child abductions spread on Facebook and YouTube (BBC News 2019).

Academics, attorneys, activists, and journalists have attacked political microtargeting as intrusive and manipulative (Baviera, Sánchez-Junqueras, & Rosso, 2022; Binder, Stubenvoll, Hirsch, & Matthes, 2022; Bright, Sussman, & Wilcox, 2021) because targeted individuals are frequently unaware of their exposure to this campaign approach. Despite restrictions regarding the processing of personal data in the EU (e.g., the GDPR), Twitter's official prohibition on political microtargeting (Binder et al., 2022), and contextual limitations such as budget restrictions or party structures (Kruschinski & Haller, 2017), users provide a vast amount of data on social media that can be used to target them (Kusche, 2022). Consequently, social networking sites such as Facebook continue to display advertisements and content to their members based on their likes, interests, and submitted information, which is occasionally relevant to political subjects (Facebook Help Center, 2021). Moreover, politicians are increasingly utilizing social media to communicate directly with potential voters (Capozzi et al., 2020).

While consumers' worries are clear, political targeting effects are still unclear. There is a paucity of research on the direct influence of political targeting on "outcome" factors such as voting behavior. There are three primary reasons why it is difficult to establish a straight relationship between exposure to political microtargeting and political involvement outcomes. First, it is debatable if the acts that permit microtargeting (e.g., tracking, tracing, or purchasing user data) give information that is not already available through traditional sources such as voter rolls and prior voting history (Medina Serrano, Papakyriakopoulos, & Hegelich, 2020). Second, the potential effects of microtargeting on political results can only be quantified accurately if microtargeting provides user with information that is not available through other channels. For instance, if a social media user is targeted via canvassing and microtargeting, the differential effect of microtargeting can only be observed if these two types of campaigning convey distinct information. Thirdly, targeting is frequently applied approximately and without specific audience interests (Serrano et al., 2019). For instance, German parties typically target based on broad categories such as gender and geography. These categories may not have a significant impact on political engagement. The possibility that targeting has no direct impact on voter decisions may be reassuring however we can't be sure. Instead, we try

to address the overarching question of what the current literature can tell us regarding what has been studied so far.

Research Methodology

Bibliometric Analysis

A bibliometric analysis is a helpful tool to gauge the impact of publications on the scientific community. Bibliometric analysis is described as a statistical evaluation of published scientific articles, books, or book chapters (de Moya-Anegón, Chinchilla-Rodríguez, Vargas-Quesada, Corera-Álvarez, Muñoz-Fernández, González-Molina & Herrero-Solana, 2007). The number of times a piece of research has been mentioned by other authors can be used to determine its academic influence. The study design of a bibliometric analysis or citation classics is a widely used technique to assess the impact of an article.

Merigó, Mas-Tur, Roig-Tierno, and Ribeiro-Soriano (2015) use bibliometric analysis to examine, organize, and analyze large body of literature from a quantitative, objective perspective in order to assess patterns of research and emerging trends in certain domains of knowledge. A bibliometric methodology is used to identify the current state of the academic literature, advance research and find objective information regarding the body of knowledge in specific topics (Dana, Kumar, Pandey, & Sureka, 2021). This technique allows researchers to examine previous scientific works, comprehend advancements in prior knowledge, and identify future study opportunities.

To achieve this objective and to identify the research trends in social media and how they are being used in political campaigns, this study employs two bibliometric methodologies: performance analysis and science mapping. Performance analysis uses a series of bibliometric indicators (e.g., number of annual publications, document type, source type, journal impact factor, languages, subject area, h-index, and countries) and aims at evaluating groups of scientific actors on a particular research topic. VOSviewer software (Eck & Waltman, 2014) was used to carry out the science mapping. Science mapping software is used to visualize a particular body of literature and map the bibliographic material using co-citation and co-occurrence analysis of author, index keywords, nations, and fields of publication (Durieux & Gevenois, 2010).

Data Collection

The researcher picked keywords, designed the search strings, built up a database and ran a bibliometric literature search. Scopus database was utilized to gather exploration data since it is a widely used database that contains the most comprehensive view of the world's research output and provides one of the most effective search engines (Chadegani et al., 2013). A keyword search for 'social media' OR 'social networking sites' OR 'Facebook' OR 'Instagram' OR 'Twitter' AND 'Political Campaigns' yielded 273 papers, which were downloaded from Scopus. (The information was gathered in August 2022, and because the Scopus database is updated on a regular basis, the results may change in the future). A particular emphasis was posed on Facebook, Instagram and Twitter as these three platforms have been recognized to have been used strongly in political campaigns (Bossetta, 2018), however the researcher decided to keep the source of platforms wide by including more generic keywords such¹ as "Social media" and "Social Networking Sites". Next, we examined the titles and abstracts to see whether they were relevant to the topic treated. There were two common grounds for document exclusion; first, while several documents emphasized the negative effects of digital media in relation to the organization of political campaigns, they did not focus on social media platforms specifically. Similarly, social media were discussed in relation to politics in several studies, although only in broad and peripheral terms. This left a total of 269 documents. Articles were then limited only to journal, conference papers, reviews, books, and only those published in English. This process excluded three additional documents. Then, the relevance of the remaining articles was finally checked by reading the titles, abstracts, and keywords. Documents were excluded if social networking sites were only mentioned as a background topic or very generally. This resulted in a final selection of 265 research papers, which were then subjected to bibliometric analysis (see Figure 1).

After identifying 265 Scopus files, bibliographic data related to these documents were imported into an Excel sheet where the authors' names, their affiliations, document titles, keywords, abstracts, and citation figures were analyzed. These were subsequently uploaded into VOSViewer

software version 1.6.8 to begin the bibliometric review. Descriptive statistics were created to define the whole body of knowledge about social media and their role in political campaigns. VOSViewer was used to analyze citation, co-citation, and keyword co-occurrences. According to Zupic and Čater (2015), co-citation analysis measures the influence of documents, authors, and journals heavily cited and thus considered influential. Co-citation analysis has the objective of building similarities between authors, journals, and documents and is generally defined as the frequency with which two units are cited together within the reference list of a third article.

Results

In this section we include the findings on social media in relation to the promotion of political campaigns. The results are presented by the foci outlined in the study questions.

Volume, Growth Trajectory, and Geographic Distribution of the Literature

After performing the Scopus-based investigation of the current literature regarding social media in relation to the promotion of political campaigns, we obtained a knowledge base consisting of 265 documents comprising 175 journal articles, 75 conference papers, four articles reviews, nine books and one conference review. The included literature was very recent, as shown in Figure 2. Publication rates started very slowly in 2011 but really took off in 2018, after which publications dramatically increased each year until a peak was reached in 2021 with 51 publications. This could probably stem from the 2018 Cambridge Analytica scandal, when it was revealed that the data of up to 87 million Facebook profiles were collected without user consent and used for ad targeting purposes in the campaigns of Ted Cruz and Donald Trump. Similar issues were presented in papers on the Brexit referendum, and foreign elections in over 200 countries. The controversy brought extraordinary public exposure to a long-brewing trend — the uncontrolled gathering and use of data — that has been invading the privacy of citizens and harming democracy by enabling increasingly sophisticated

¹ ((TITLE-ABS-KEY ("social media")) OR TITLE-ABS-KEY ("social networking sites")) OR TITLE-ABS-KEY ("Facebook") OR TITLE-ABS-KEY ("Instagram") OR TITLE-ABS-KEY ("Twitter") AND TITLE-ABS-KEY ("Political Campaigns"))

Figure 1. Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flowchart showing the search procedures used in the review

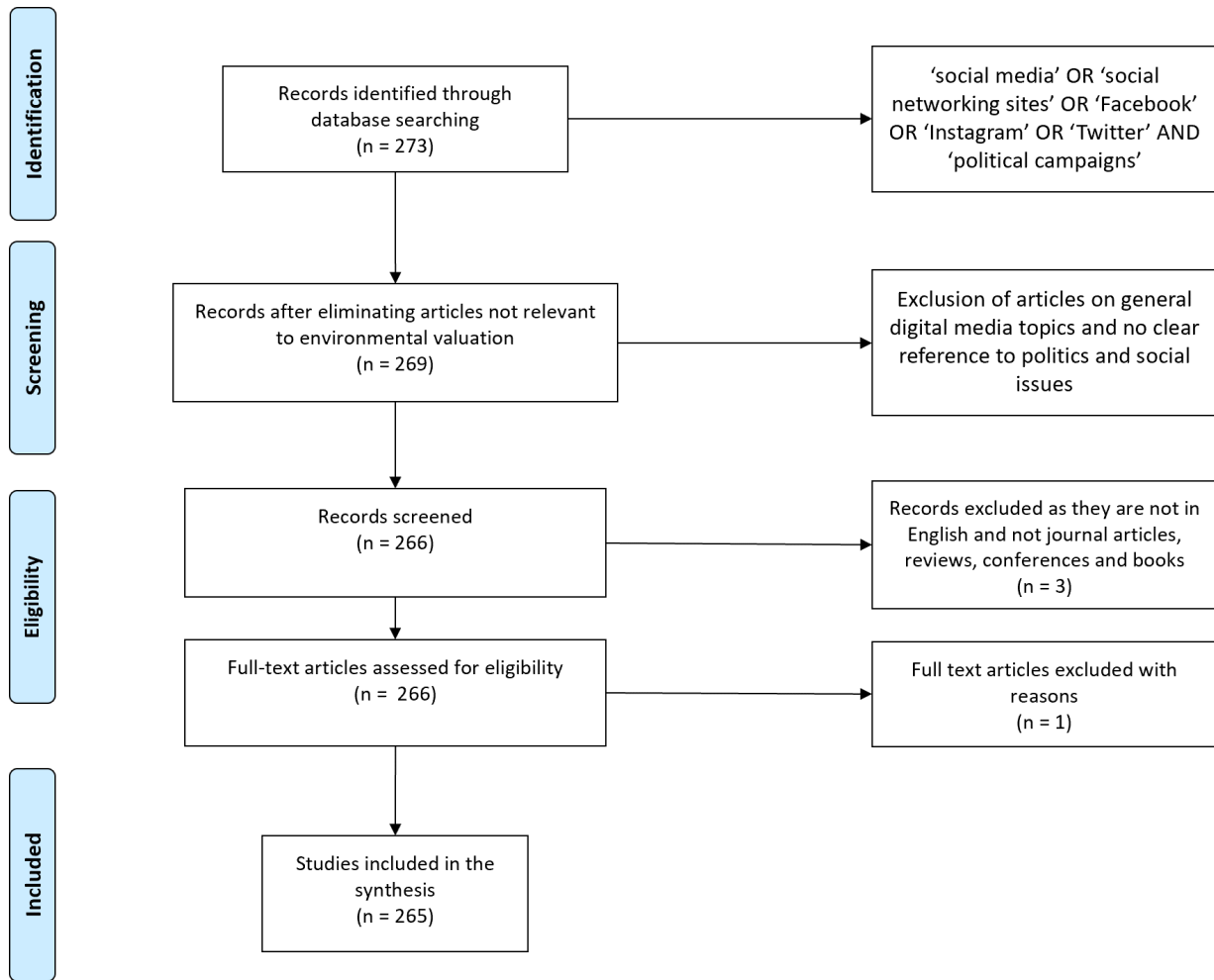
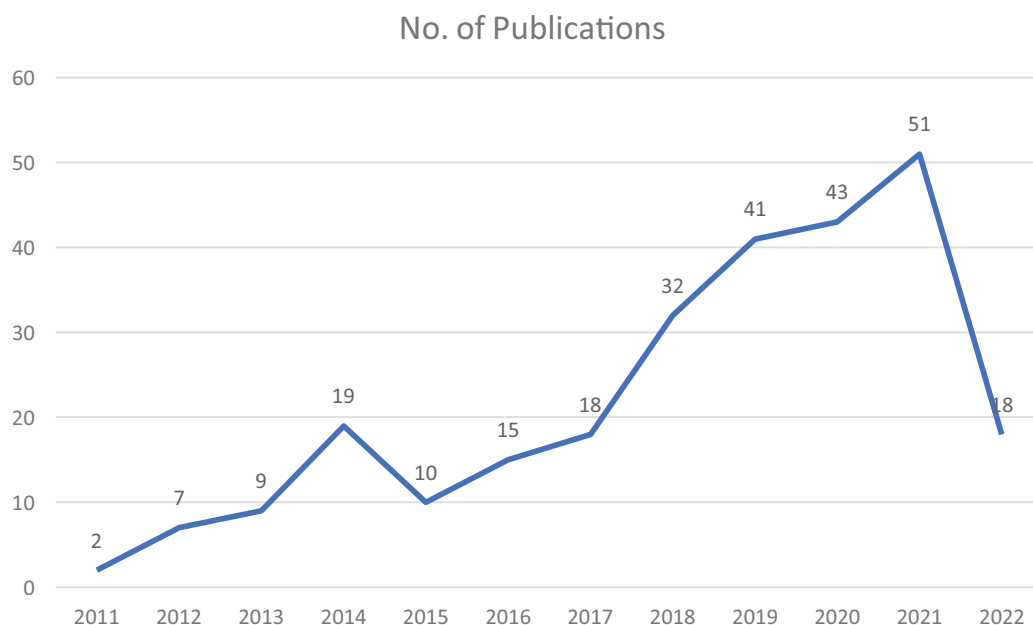


Figure 2. Annual volume of social media in relation to the promotion of political campaigns (n = 265)



voter deception and suppression tools. Analyzing the literature published during the past decade reveals an exponential increase in scholarly production on social media in relation to the promotion of political campaigns. This might be due to the increasingly widespread introduction of social media platforms in everyday life and the elections' scandals that have fundamentally impacted public opinion and electoral campaigns particularly in the USA and Europe.

The geographical distribution trends of scholarly publications on social media in relation to the promotion of political campaigns are highlighted in Figure 3. The figure shows that the most productive countries are the USA (105), the U.K. (29), and India (23), which combined produced 157 articles, equal to 59% of the entire scholarly production examined in this bibliometric analysis. India's scholar production has exponentially evolved since 2019, with several articles (Allagui, 2019; Arabaghatta Basavaraj, 2022; Arogyaswamy, 2020) focusing on the 2019 general Indian election which has been dubbed the "first WhatsApp election". The benefits listed in the papers (Medina Serrano et al., 2020; Reisach, 2021; Udem, Aghoghovwia, & Baro, 2020) of using a platform like WhatsApp for campaigning purposes are clear: not only does it allow strategists to personalize messages to different interest groups, similar to how Facebook handles ads, but it also provides senders anonymity. Articles posed

attention on political communication using new media (Antoniades, 2020; Capozzi et al., 2020; Crain & Nadler, 2019; De Boer et al., 2012; Dolanbay, 2019). This coincided with the proliferation of new communication networks and technologies, and the rapid transformation of media consumption patterns. Overall with the growth of the internet and social media, political parties in all regions of the world have made wide usage of social media platforms to promote their ideologies. Anglo-American scholarly publications on social media related to political campaigns represent the largest research output. Yet it is interesting to observe that social networking sites studies related to the promotion of political campaigns are not attracting researchers' interest from Asian countries except for Indonesia and India, particularly intriguing is the absence of Chinese's studies whose possible reasons may be discussed later on.

Analysis of Influential Authors

This section analyses the high-impact authors in the Scopus-indexed knowledge base on social media in relation to the promotion of political campaigns. It provides valuable insights for establishing patterns of knowledge generation and dissemination of literature about social networking sites relating to political campaign promotions. Table 1

Figure 3. Global dispersion of the literature on social media in relation to the promotion of political campaigns.

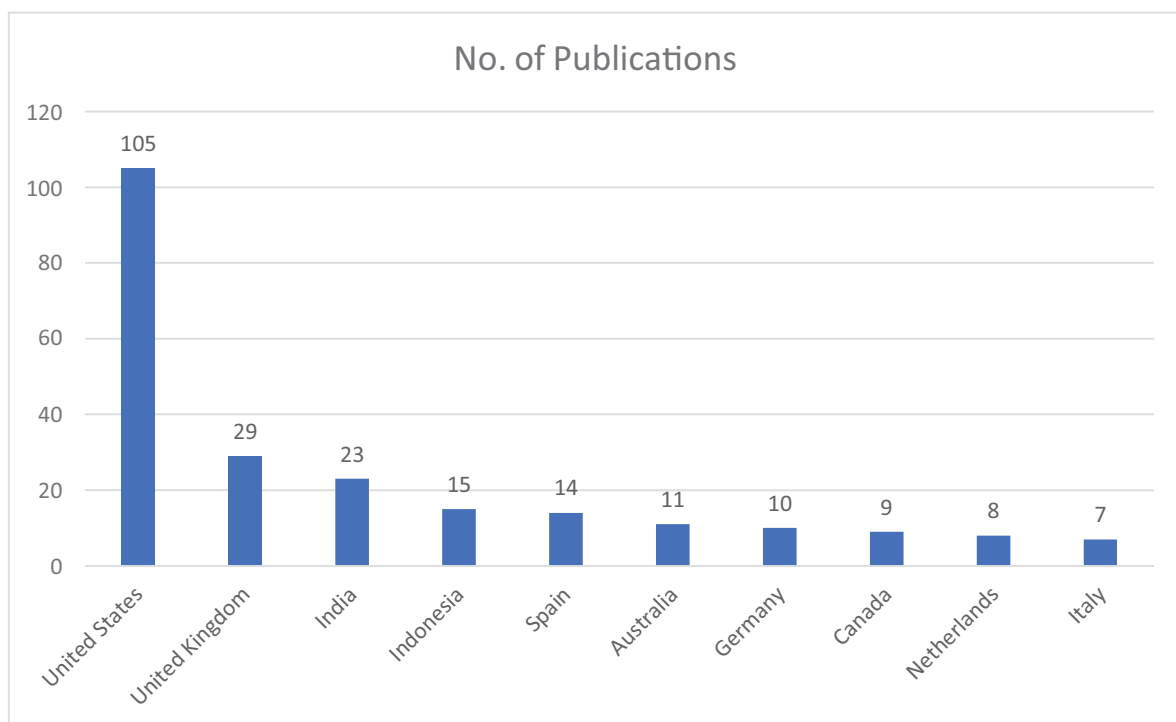


Table 1. *Highly cited authors on social media in relation to the promotion of political campaigns (n = 265)*

Rank	Author	Country	Articles	Citations
1	Benevenuto, F	Brazil	5	49
2	Fowler, EF	USA	5	34
3	Silva, M	Portugal	4	17
4	Goga, O	France	3	46
5	Franz, MM	USA	3	24
6	Ridout, TN	USA	3	24
7	Vargo, CJ	USA	3	49
8	Dobber, T	Netherlands	3	16
9	Haenschen, K	USA	3	7
10	Singh, S	Norway	3	10

acknowledges the top 10 most highly cited authors with the highest total citations in the database.

Table 1 shows that F Benevenuto (five articles), EF Fowler (five articles), and M Silva (four articles) are the most productive scholars according to the number of Scopus documents examined in the area of *social media in relation to the promotion of political campaigns*. If the criteria are changed and authors are ranked according to the overall number of citations received, F Benevenuto and CJ Vargo are first with the same number of citations (49) followed by O Goga (46) and EF Fowler (34). It should be noted that these highly cited authors tend to enlist several disciplines while examining social media in relation to the promotion of political campaigns. Benevenuto, for example, focuses on social media content analysis including social computing, sentiment analysis and computational journalism with a particular attention to the diffusion of fake news and their impact on citizen's voting behavior. Fowler, on the other hand, specializes in large-scale analyses of political communication campaigns and campaign advertising in electoral settings, and Silva approaches social media and the promotion of electoral campaigns through web data integration and information retrieval's perspective.

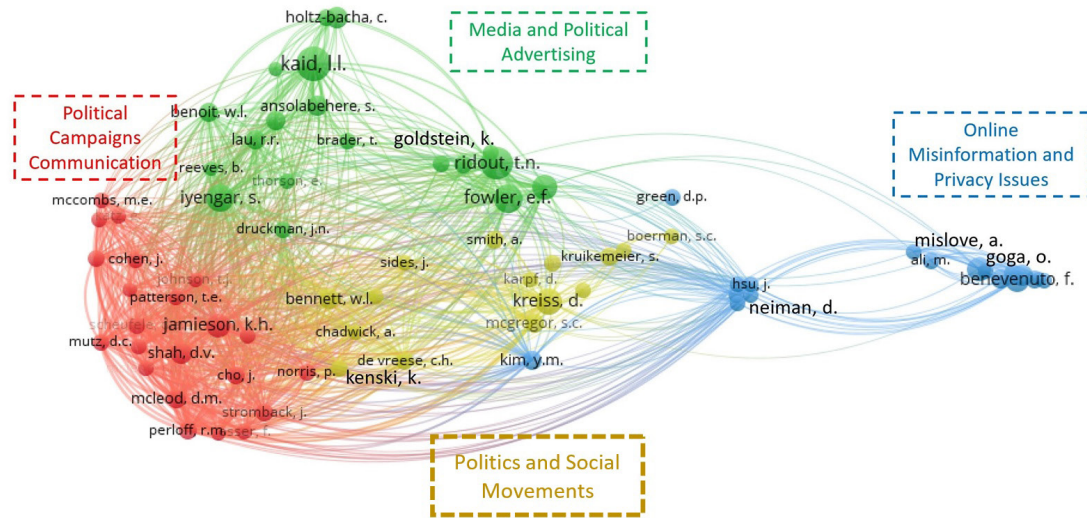
Intellectual Structure of the Literature

In this section of the paper, we illustrate the 'intellectual structure' of social media in relation to the promotion of political campaigns' literature. To do so the author conducted an author co-citation analysis (ACA), displayed as

a figure that depicts the relations between highly co-cited authors. ACA builds co-citation matrix primarily by computing co-citation frequencies among co-cited authors and maps the knowledge domains of a particular topic through a series of analysis and transitions (Jeong et al., 2014). In order to facilitate academic integration and communication, it is also beneficial to learn about developing disciplines and subdomain distributions. The study of co-citation assumes that strongly co-cited authors carry some form of intellectual similarity (Bush & Gilbert, 2002). According to Bush and Gilbert, (2002) the primary focus of an ACA is to establish a network of cited authors connected by co-citation relationships. The analytical unit in an ACA is composed of authors and their intellectual relationships as revealed by scientific literatures. Author co-citation is a stricter grouping principle than conventional subject indexing since the connectedness is based on the repeated and accumulated opinions of subject experts reflected in their published works. Typically, the ACA process begins with sampling of publications that are indicative of the literature in a given subject of study. ACA gives essential information regarding how authors, understand the interconnectedness of published works. After that the author proceeded reading the articles related to the topics treated by the authors featured in the ACA to establish the names of each cluster. Figure 4 shows the author co-citation map. Nodes represent units of analysis, and in this case, scholars and network ties represent similarity connections. The size of the nodes indicates the number of co-citations received—the bigger the node the more co-citations received. Adjacent nodes are considered intellectually similar.

Scholars belonging to the green cluster (Media and Political Advertising) have extensively published on the quantity, distribution, content, and consequences of political advertising in legislative and presidential elections around the world. Studies ranges from ad airings on local broadcast stations to newer paid digital advertisements (Fowler, Franz, Martin, Peskowitz & Ridout, 2021), such as those on Facebook, Instagram, Twitter, Google, and YouTube (Haenschen & Wolf 2019). The authors in this cluster discuss the role of outside groups in airing advertisements, particularly the rise of dark money groups (Fowler, Franz & Ridout, 2021;) and gaps in laws regulating campaign finance (Feltus, Goldstein & Dallek, 2018). The authors examine how ad sponsors is being created and how ads are being targeted (Gollust, Frenier, Tait, Baum, Kennedy-Hendricks, Niederdeppe & Franklin, 2022). In addition, some papers

Figure 4. Four clusters, representing the intellectual structure of social media in relation to the promotion of political campaigns' literature



examine the good and negative implications of an electoral system in which big capitals are spent on advertising (Avis, Ferraz, Finan & Varjão, 2022). The red cluster (Political Campaigns Communication) instead highlights scholars who have focused their attention on examining political campaigns communication through the analytical lens of media literacy (Jones-Jang, Mortensen & Liu, 2021; McGregor, 2020; Moran & Bui, 2019), with an emphasis on the persuasive methods embedded in political messages encountered in the media and the evaluation of stories presented by the media by the general public. There are publications on political advertising in traditional media (newspapers, television, and radio) (Messner & Distaso, 2008; Kaye & Johnson, 2003) as well as on the Internet (Kusuma, Purbantina, Riswari & Tutiasri, 2020). Dealing with blogs, social networking, user-generated websites, and other electronic media familiar to young voters has highlighted how political communications has evolved to appeal to users' preferences (Bignoux, 2020; Seow, 2020; Piyathissa & Ratnayake, 2019). Authors belonging to the blue cluster (Online Misinformation and Privacy Issues) writes about a variety of theories, techniques, and case studies regarding online deception (Hage, Aïmeur & Guedidi, 2021; Vaccari & Chadwick, 2020; Ray & George, 2019) and how the diffusion of fake news impact citizen's behavior. Authors provide deception-detection strategies for addressing the issues posed by deceitful online communication and cyber fraud (Levine, 2020). Authors in this cluster examine various aspects of deceptive behavior and deceptive communication on social media, as well as new methods

examining the concepts of fake news and misinformation, character assassination, and political deception, while highlighting topics such as behavior analysis, cyber terrorism, and network security. Lastly, the yellow cluster (Politics and Social Movements) focuses on the expanding significance of populism in Europe, Latin America, and the United States to highlight the symbiotic linkages between social movements and parties, analyzing the function of social media as a mobilizing and aggregating factor for social movements; emphasizing the connections between structural changes in the economy and new forms of dispute, and establishing the connections between social movements and democracy (Bracciale, Andretta & Martella, 2021; Bobba, 2019; Ernst, Blassnig, Engesser, Büchel & Esser, 2019).

Most Influential Source Title in the Field of Social Media in Relation to the Promotion of Political Campaigns

To find the preferred journals in the field of social media and political campaigns, we have selected 175 articles published in 27 journals. Table 2 gives a ranked list of the top 10 journals that constitute the core publishing sources in the field of social media and political campaign research. In doing so, we analyzed the journals' citations, Scopus quartile, and number publishers.

The *Journal of Communication* topped the list, with 266 citations and 2 publications, followed by *Annals of the American Academy of Political and Social Science*, with 190 citations and

Table 2. Top 10 publishing sources in the field of social media addiction

Rank	Source	Citations	Quartile	Publisher
1	Journal of Communication	266	Q1	Wiley-Blackwell
2	Annals of the American Academy of Political and Social Science	190	Q1	SAGE
3	Annual Review of Political Science	156	Q1	Annual Review
4	Political Communication	145	Q1	Taylor & Francis
5	Journal of Information Technology and Politics	57	Q1	Routledge
6	Journal of Public Relations Research	53	Q1	Routledge
7	Communication Research	49	Q1	SAGE
8	International Journal of Communication	46	Q1	USC
9	Journal of Broadcasting and Electronic Media	39	Q1	Taylor & Francis
10	Journal of Political Marketing	28	Q2	Routledge

2 publications, *Annual Review of Political Science*, with 156 citations and 2 publications, and *Political Communication*, with 145 citations and 6 publications. Three of the 10 most productive journals in the field of social media in relation to the promotion of political campaigns are published by Routledge while SAGE and Taylor & Francis published two journal each.

It is interesting to observe that most of the journals that are included in [Table 2](#) skews towards political science and communication while in [Table 1](#) where we list the most highly cited authors on the topic of social media in relation to the promotion of political campaigns, we can observe that the first authors for number of citations received is Benevenuto, F who is a computer scientist focusing on how to use computers to identify and detect online misinformation and hate speech and at the third spot Silva, M who is an electrical engineer specialized in software development for analyzing social media ads especially in political context. This could be due to the fact that online media have become increasingly more an outlet for political parties looking to enhance their likelihood to be elected and therefore information system and computer engineering can come in help when they have to detect and combat the spread of misinformation.

Keyword Co-occurrence Analysis

The research question, ‘What are the key thematic areas in social media in relation to the promotion of political

campaigns literature?’ was answered using keyword co-occurrence analysis. Keyword co-occurrence analysis is conducted to identify research themes and discover frequent keywords within the literature domain. It mainly examines the relationships between co-occurrence keywords in a wide variety of literature (Zhao, Chen, Yang, Deen, & Wang, 2019). In this approach, the idea is to explore the frequency of specific keywords being mentioned together. A keyword co-occurrence analysis focuses on understanding the knowledge components and knowledge structure of a scientific or technical field by examining the links between keywords in the literature, as opposed to a co-citation analysis, which studies the structure of scientific communication by analyzing links between citations in the literature. The focus of the analysis techniques is to investigate research themes and their relationships in a specific domain. Each keyword is treated as a node, and each time two words occur together, it forms a link between those two words. The weight of the link linking these two keywords is determined by the frequency with which a word pair appears.

Utilizing VOSviewer, we conducted a keyword co-occurrence analysis to characterize and review the developing trends in the field of social media and political campaigns. The top 10 most frequent keywords are presented in [Table 3](#). The results indicate that ‘social media’ is the most frequent keyword (88 occurrences), followed by ‘political advertising’ (49 occurrences), ‘Facebook’ (27 occurrences), and ‘marketing’ (15 occurrences). As shown in the co-occurrence network ([Figure 5](#)), the keywords can be grouped

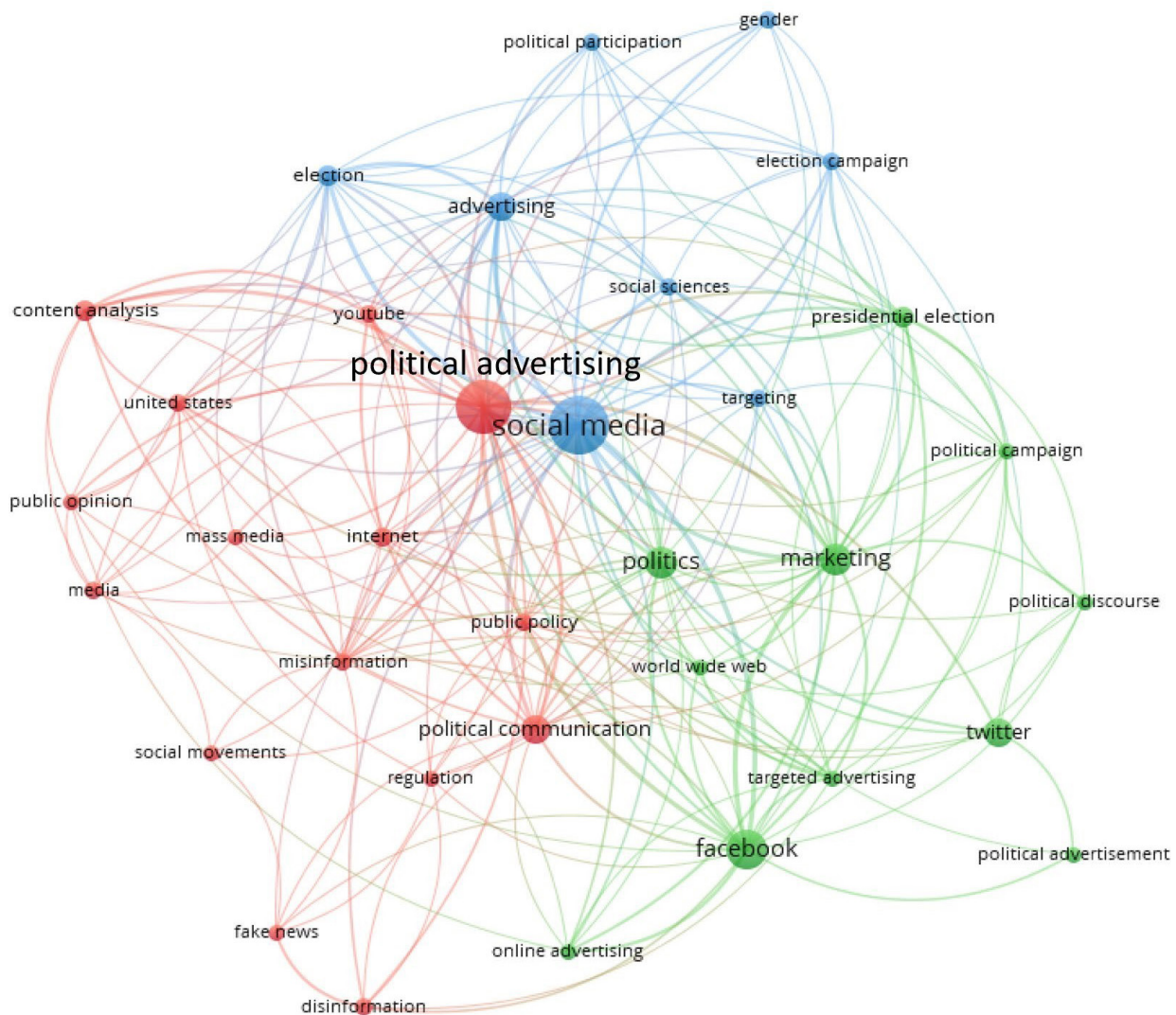
Table 3. Frequency of occurrence of top 10 keywords

Keyword	Occurrences
Social media	88
Political advertising	49
Facebook	27
Marketing	18
Politics	15
Political communication	14
Twitter	14
Election	8
Content analysis	8
Misinformation	6

into three major clusters. ‘Marketing’ can be identified as the core theme of the green cluster, in the red cluster, keywords mainly identify with political advertising effects and lastly the blue cluster is associated with social media usage for electoral campaigns.

The results of the keyword co-occurrence analysis for journal articles provide valuable perspectives and tools for understanding concepts discussed in past studies of social media in relation to political campaigns. More precisely, it can be noted that there has been a large body of research on social media political advertising analyzing several types of technological platforms, such as Facebook and Twitter. This field of research has mainly been directed towards younger voters and it examines the political communication deceptive tools employed by parties on social media.

Figure 5. Keywords co-occurrence map. Threshold: 3 co-occurrences



Discussion

Our findings showed that there has been an exponential increase in scholarly publications—from two publications in 2011 to 51 publications in 2021. This is partly because of the increasing importance that microtargeting, a digital marketing tool, is having in modern political campaigns which is fundamentally redefining contemporary politics, affecting the relationships between candidates, parties, voters, and the media. Articles in the literature (Bernholz, Landemore, & Reich, 2021; Hobbs, 2013; Masip, Ruiz-Caballero, & Suau, 2019) recognized that digital technologies have made significant positive contributions to the vitality of the political sphere, including the expansion of news and information sources, the expansion of opportunities for citizen participation, and the empowerment of individuals from diverse backgrounds to form coalitions and influence policy. The same techniques originally developed for digital marketing purposes have also assisted political campaigns in significantly increasing voter engagement, enhancing their capacity for “small-donor” fundraising, and generating turnout more efficiently (Moonshadow, 2019; Owen, 2017). Nevertheless, a number of papers in this review discussed grave problems regarding privacy, discrimination, manipulation, and lack of transparency.

According to the literature analyzed microtargeting includes the use of a big pool of data that tracks possibly thousands of aspects about an individual in order to find the most effective political messaging. How these statistics are acquired is a contentious issue within the literature. Some of this information can be restricted to specifics such as geographical location, if individuals voted in prior elections, etc. Other papers (Borgesius et al., 2018; Browne, 2018; Dobber, Ó Fathaigh, & Zuiderveen Borgesius, 2019) stressed that through data analysis methods, a party can target potential voters with web and television advertising, door-to-door solicitation, and even printed material. According to scholars in the database analyzed microtargeting can hurt democracy in multiple ways. Microtargeting aims to determine the issues that are important and to provide with advertisements that will encourage individuals to vote. However, democracy should not be limited to appealing to frequently subjective and individual views. Election campaigns are not merely a question of logistics; they constitute a national dialogue. Microtargeting facilitates and promotes narcissistic voter

behavior. Voters should be aware of the greater democratic discussion occurring during an election, and they may not comprehend these problems if they just receive targeted advertising that focuses narrowly on particular themes. If gun rights or the environment are the most important subject to an individual in an election, that’s fine; nevertheless, voters should be conscious of how these issues affect others and what other issues may deserve public attention.

Microtargeting narrows the focus of individuals while also grouping individuals into distinct segmented target groups based on correlations between certain factors which constitutes a serious concern. Each target group has its own interests, motivations, and goals (as well as anxieties), which campaigns are free to exploit. There is evidence that microtargeting can contribute to polarization, which makes it easier to provoke conflict between these groups. It implies that politicians focus more on voting blocs and less on the whole public, which according to the literature is why even presidential candidates increasingly address voting blocs directly. It also means that a campaign does not need to be as focused on a single constant message, making it easier to communicate different things to diverse target groups. Political parties select their voters, not the other way around. The review has shown that it’s not just politicians either. The media spends an unhealthy amount of time focusing on which target group will support which candidate or how demographics in certain districts have changed. Instead than focusing on policy, character, and other topics of public concern, the election becomes centered on the campaigning process.

Surprisingly no studies from China were present in the database examined, even though China has the highest number of social media users (Statista 2022). This may be due to the fact that for Chinese individuals with Internet connection, there are still a number of obstacles to online news and information access. The majority of the government’s content control policy comprises of automatic technical filters, self-censorship by service providers, and proactive government censorship (Freedom House, 2021). China’s technical filtering, which is frequently referred to as the ‘Great Firewall’ involves the complete blockage of domain names and social media pages, as well as techniques such as the filtering of particular Internet pages within otherwise-approved websites. This method produces a subtle kind of censorship known as “web throttling,” which slows the loading of data to the point where certain services are

rendered completely worthless (Freedom House, 2021). Social media services are subject to the same content restrictions as other China based country-registered websites. China routinely employs automated keyword filters, official warnings for self-censorship consideration, and direct content management by government agents to monitor social media (Freedom House, 2021), this may help partly explain the lack of studies in this domain. The US has almost four times the number of publications in this field compared to UK, and many American studies revolved around the following topics; Barack Obama's intelligent use of Twitter that allowed him to win the 2008 U.S. presidential election to communicate with voters (Bimber, 2014) and Trump's election. According to the literature during the 2012 presidential election, Obama's campaign was significantly better able to respond in real time to feedback on political events (Kreiss, 2014), which likely contributed to his victory. Other studies highlighted Facebook's influence over the 2016 US Presidential Election, in which Donald Trump was elected president.

Even though East Asia, Southeast Asia, and South Asia make up the top three regions in terms of worldwide social media users (Statista 2022b), except for India and Indonesia there has not been publications for promoting political campaigns. More research in these regions should perhaps be conducted in order to understand the use of social media in political campaigns so preventive measures can be undertaken. Several studies (Arogyaswamy, 2020; Caraway, 2016; Carlson, 2020; Ferrara, Varol, Menczer, & Flammini, 2016; Hopp & Vargo, 2017) have paid special attention to machine-controlled bots, which are produced every day to spread misinformation or politically convenient messages and to flood out messages for political campaigns, write phony product reviews, or create an underground market for acquiring Twitter followers, retweets, or URL ads (Alarifi, Alsaleh, & Al-Salman, 2016).

Woolley (2016) did an intriguing study on politically motivated social bots that disseminate sophisticated computational propaganda, using content analysis, the study demonstrated a variety of political bot-oriented techniques and supplied essential information for comprehending these automated software players in the humanities, social sciences, and computer science. Geiger conducted an additional intriguing investigation regarding bots (Geiger, 2016). He introduced the concept of "blockbots" that may support the curation of a shared block list of accounts, where

subscribers to a blockbot will not receive any notifications or messages from accounts on the block list, thereby supporting counter-public communities and assisting users in moderating their own site experiences. These measures can have detrimental effects on the citizens' voting behavior.

The following scholars (Bogen, Williams, Reidy, & Orchowski, 2021; Chen & Wang, 2022; Dolanbay, 2019; dos Santos & dos Santos, 2022; Fang, 2014) have analyzed the impact of political content exposure and found that political expression on social media depends on the number of friends who post about politics and the congruence or incongruence of the political material with one's political ideas (Vraga, Bode, & Troller-Renfree, 2016). These studies (Adanlawo & Reddy, 2021; Antoniadou, 2020; Auter & Fine, 2016; Baviera et al., 2022; Binder et al., 2022; Bright et al., 2021; Browne, 2018) believed that Facebook performances are multimodal, made to appear intimate, and strictly scripted which, although these traits serve a vital purpose of solidarity among like-minded individuals and groups, they offer little room or tolerance for counter-narratives (Hendriks et al., 2016). Moreover, according to Beltrán (2020), although some political participants actively embrace aims of persuasion, others choose other conceptual frameworks, such as strengthening citizenship through informing others and stimulating deliberative discourse (Penney & Dadas, 2014). It has been shown that social media is the principal platform for celebrity political appeals (Grüning & Schubert, 2022). Young voters negotiate political messages through aspirational identification and devotion to a celebrity. In contrast, politicians who acknowledge the support of others or criticize the behavior of political peers or media actors are the most popular among social media users (Bast, 2021), stimulating an environment that creates polarization.

From the bibliometric analysis we found that some studies (Adanlawo & Reddy, 2021; Atkinson, Meadows, Emslie, Lyons, & Sumnall, 2022; Dyer-Witheyford, 2020; Eugeni, 2022; Gesser-Edelsburg, Hijazi, & Cohen, 2022) were carried out with mixed methods when analyzing data and aimed at testing relationships and also analyzing content posted online. In addition, studies were empirical, aimed at testing relationships based on direct or indirect observations of social media use (Cicchini, Russell, & Cullerton, 2022; Crain & Nadler, 2019; De Boer, Sütfield, & Groshekar, 2012; Dwyer & Martin, 2017; Ferrara, Varol, Menczer, & Flammini, 2016). Our findings showed that none of the studies attempted to create or test new theories in this

field, perhaps due to the lack of maturity of the literature. Moreover, three qualitative studies have been conducted in this field within our database (Bogen, Williams, Reidy, & Orchowski, 2021; Fernández-Muñoz, Rubio-Moraga, & Álvarez-Rivas, 2022; He, Wang, & Jiang, 2014). More qualitative research in this field should perhaps be conducted as it could explore the motivations and rationales from which certain users' behavior may arise.

Other studies (Bright et al., 2021; Capozzi et al., 2020; Goodnow, 2013; Grüning & Schubert, 2022; Hopp & Vargo, 2017) tested social media for political promotion based on three social media: Facebook, Instagram and Twitter. Although Facebook and Instagram are ranked first and fourth in terms of popular social networks by number of monthly users, it would be interesting to study other platforms such as YouTube, which is ranked second, and WhatsApp, which is ranked third (Statista 2022e) and proved to be critical during Modi's election in India. Furthermore, TikTok would also be an interesting platform to study as it has grown in popularity in recent years, evident from it being the most downloaded application in 2021, with 656 million downloads (Morgan, Wilk, Sibson, & Willson, 2021), and is ranked second in Q1 of 2022. However, readers should keep in mind that this social media has been excluded in the keywords search therefore this may also be the reason for having found little research about TikTok compared to the other social networks included in the query. Moreover, most of the studies focused only on one social media platform, therefore comparing different social media platforms and how each lead to promoting certain politicians or political parties might yield interesting results.

Conclusion and Limitations

This study was conducted to review the extant literature in the field of social media for promoting political campaigns and to analyze the global research productivity. The study presents a bibliometric overview of the leading trends with particular regard to 'social media' and 'political campaigns'. This represents the first large-scale analysis in this area of study.

A keyword search of 'social media' OR 'social networking sites' OR 'Facebook' OR 'Instagram' OR 'Twitter' AND 'Political Campaigns' OR 'Political Elections' yielded 265 papers, which were downloaded from Scopus. The

geographical distribution trends of scholarly publications on social media and political campaigns indicate that the most productive countries were the USA (105), the U.K. (29), and India (23), which together produced 157 articles. Benevenuto, F (five articles), Fowler (five articles) and Silva (four articles) were the most productive scholars according to the number of Scopus documents examined in the area of social media and political campaigns. We also conducted an author co-citation analysis (ACA) that generated a layout of social media and political campaigns in the form of four research literature clusters representing the intellectual structure of the literature. The preferred journals in the field of social media and political campaigns were: *Journal of Communication*, *Annals of the American Academy of Political and Social Science* and *Annual Review of Political Science*. Keyword co-occurrence analysis was used to investigate the key thematic areas in the social media literature, as represented by the top three keyword phrases in terms of their frequency of occurrence, namely, 'social media', 'political advertising' and 'facebook'.

This research has a few limitations. We used science mapping to improve our comprehension of the literature base in this review. First and foremost, we want to emphasize that science mapping should not be utilized in place of established review procedures, but rather as a supplement. As a result, this review can be considered the initial stage, followed by substantive research syntheses that examine findings from recent research. Another constraint stems from how 'social media for political campaigns' is defined. The authors overcame this limitation by inserting the phrase 'Political Campaigns' OR 'Political Elections' in the search string. The exclusive focus on Scopus-indexed papers creates a third constraint. The Scopus database has a larger number of papers than does Web of Science although it does not contain all the publications in a given field.

In the country articles' production, the centralization of institutions in the United States may be a possible result of looking at English-only publications. Countries for which English is not a primary language could have been under-represented.

The use of Scopus as the sole database from which extracting articles to be analyzed was a great resource, especially when considering how common is the field of social media among scholars publishing in social sciences and the digital humanities (Martn-Martn et al., 2018). This however may have had an impact on the significant authors' analysis

in 4.2, as the database may have emphasized quantitative and computational scholars.

Although the total body of literature on social media and political campaigns is larger than what is covered in this review, the use of co-citation analyses helped to mitigate this limitation. This form of bibliometric study looks at all the publications listed in the reference list of the extracted Scopus database documents. As a result, a far larger dataset than the one extracted from Scopus initially has been analyzed. The interpretation of co-citation maps should be mentioned as a last constraint. The reason is that the procedure is not always clear, so scholars must have a thorough comprehension of the knowledge base in order to make sense of the result of the analysis (Zupic & Cater, 2015). This issue was addressed by the author's expertise, but it remains somewhat subjective.

Research Directions for Future Studies

By evaluating the most frequently used keywords in publications on this topic, the researcher was able to uncover gaps in the literature. The significance of a specific topic can be determined by the frequency with which keywords appear in the bibliometric study's document database. On this basis, it is possible to determine if a topic has been sufficiently studied or whether there is still room for future investigation. The identification of gaps was also achieved through the reading of articles and identifying those gaps that are explicit in the text, i.e., those that are typically located near the end of the articles. Moreover, it is feasible that obstacles encountered during the conduct of a study can also be viewed as an explicit gap that can inspire additional research. Among the stated gaps may also be those resulting from geographical limits, which are the result of the studies' inherent limitations. In order to stress the significance of this type of gap, it is important to determine whether other studies with similar aims are geographically limited in the same way. If the geographical limitation is established, the necessity to apply the study to other regions, countries, or continents can justify a study.

This analysis demonstrates that there are currently significant research gaps concerning the use of social media by political players, such as a lack of comparisons between countries, platforms, different types of actors, and both election and non-election times. However, the available research

provides rich and significant insights into social media being used for political promotion purposes. In light of this, there are chances for additional research in the following areas:

In first place, there is a need for high impact research, particularly experimental designs. Existing research analyzing the influence of content on user interaction provides valuable information into which methods on a singular platform attracts attention. However, there is a dearth of trials that investigate the causal influence on users, such as the judgment of political actors. In addition, the influence of extrinsic variables, such as the gender of the political person or the recipients or the perceived genuineness of a message, should be studied.

Second, an effective examination of political social media usage necessitates techniques beyond those often employed for textual media, hence increasing the necessity for visual methodologies and multidisciplinary research. Both visual and textual content diversity must be considered. Therefore, social media exemplifies the increasing need for multimodality in communication studies (Sikorski & Brantner, 2018). In addition, the use of some social media features by politicians, political parties, and governments, such as stories, live videos, and reels, has not been thoroughly investigated. For example, stories and reels on Instagram and TikTok are getting increasingly popular (Statista, 2019). Vázquez-Herrero, Direito-Rebollal, and López-García (2019) noted that stories and live videos provide new opportunities for political storytelling and participation, since they allow users to ask viewers questions or immediately respond to user queries during a livestream. Consequently, they may be a potent instrument for enhancing direct communication between political actors and social media followers. In a recent Instagram livestream, for instance, U.S. Representative Alexandria Ocasio-Cortez discussed her experience during the attack on the U.S. Capitol. The video garnered significant attention, both on Instagram with nearly six million views and in newspapers (Borah et al., 2022).

Third, further systematic comparisons are essential. This would necessitate comparing a huge number of political actors with varied characteristics, such as gender, party size, or political spectrum, in diverse circumstances, such as different countries or election and non-election times.

Fourth, social media have significant potential for qualitative research. Existing qualitative research papers have indicated that in-depth examinations of social media material can increase our understanding of how political

players utilize these platforms. Given the multimodality of the medium, a combination of quantitative and qualitative methods can aid in a comprehensive and in-depth understanding of communication patterns, pertinent visual and textual content and procedures.

Fifth, it would be advantageous to do additional longitudinal research (Russmann et al., 2019) to study indicators of changes in political communication, such as a personalization trend. For example, there is preliminary evidence that parties may alter their social media strategies over time (Russmann et al., 2019; Turnbull-Dugarte, 2019).

Sixth, future research should systematically build on existing literature and thoroughly validate its findings in a variety of scenarios in order to produce a more integrated body of study (Jungherr, 2016). To this purpose, research that applies established analytic principles to other situations (Steffan, 2020) can contribute to the development of robust evidence. Future research could increase comparability by aligning

key ideas with the definitions employed in earlier research. Popular notions such as selfies and non-political content, for instance, should be based on a shared understanding.

Last but not least, social media and politics study, like all research, must be grounded in robust theoretical frameworks and contribute to theory development. Future research should not focus merely on reporting the usage of social media technologies in political campaigns, but should instead construct complex models that help us understand why and how these tools are being used. Also, when it comes to the use and consequences of social media on the level of citizens, we require full-fledged theoretical models, particularly in terms of direct and indirect effects on political and civic involvement. As a relatively new phenomenon in our field, social media should initially be treated theoretically, with the development of theories, models, and concepts that may then be evaluated in a second step.

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Appendix

VOSviewer parameters used for co-citation analysis

Item	Characteristic/value
Type of analysis	Co-citation analysis
Unit of analysis	Cited authors
Counting method	Full counting
Method of normalization of strength of the links between items layout	Association strength method
Attraction	2 (default setting)
Repulsion Clustering	0 (default setting)
Resolution parameter (detail of clustering)	1 (default setting)
Minimum cluster size [N]	1 (default setting)
Merging small clusters	Switched on
Visualization	
Scale	0.95
Weights	citations
Labels size	0.50
Maximum number of lines	1000
High citation used for analysis [N]	53
Minimum citation of a author used for analysis [N]	15

Source: Own study.

VOSviewer parameters used for co-occurrence analysis

Item	Characteristic/value
Type of analysis	Co-occurrence analysis
Unit of analysis	All keywords
Counting method	Full counting
Method of normalization of strength of the links between items layout	Association strength method
Attraction	2 (default setting)
Repulsion Clustering	0 (default setting)
Resolution parameter (detail of clustering)	1 (default setting)
Minimum cluster size [N]	1 (default setting)
Merging small clusters	Switched on
Visualization	
Scale	0.95
Weights	occurrences
Labels size	0.50
Maximum number of lines	1000
High frequency keywords used for analysis [N]	93
Minimum occurrences of a keyword used for analysis [N]	10

Source: Own study.

Data are available at: https://figshare.com/articles/dataset/Social_Media_and_Political_Advertising_csv/21572337

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