Exploring social media trends over the past decade (2010-2022): A bibliometric approach

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ABSTRACT

This article aims to provide a concise overview of the latest research concerning social media, with a particular focus on tendencies observed recent year. Furthermore, this study investigates and addresses aspects of social networking and e-commerce. Our study was conducted using bibliometric by using VOSviewer and content analytic methods on a dataset obtained from Scopus. The dataset consisted of 29,667 articles and covered the time span from 2010 to 2022. We explore and analyze biometrics in the scope of this study to identify significant groups and then offer a framework for future research. A brief description and practical standpoint of social media will be presented and accompanied by research recommendations. This research will provide a comprehensive examination of keywords associated with social media, as well as renowned universities that have a substantial volume of content. Furthermore, this study's findings highlight different trends of research papers with potential keywords, and propose potential options for future research. Additionally, this study makes a practical contribution by assessing the broad range of concerns surrounding the topic of social media and assisting managers in recognizing many facets of social media.

1. Introduction

Social media has become an important component of modern life (Choi & Thoeni, 2016), influencing the way in which individuals communicate, participate, and share information (Boursier, Gioia, Musetti, & Schimmenti, 2020). When the first major social networking sites like Friendster, Myspace, and LinkedIn were introduced to the public in the early 2000s, social networking quickly gained widespread popularity for the first time (Hase, Boczek, & Scharkow, 2022). Facebook, Instagram, TikTok, and Twitter are just some of the prominent social networks that have emerged as a result of the significant technological advancements that have taken place over the past two decades (Culnan, McHugh, & Zubillaga, 2010; Park & Cho, 2012). In addition, the concept of "social media" encompasses a diverse array of digital groups and platforms, such as social networking sites, microblogging platforms, online video-sharing communities, and online forums (Kane, Alavi, Labianca, & Borgatti, 2014). These platforms connected users' personal accounts with their friends' profiles, allowing users to communicate with one another and share material (Kane et al., 2014). In doing so, they established the groundwork for the social media environment as we know it today.

The term "social media" refers to websites and programs found online that give users the ability to generate new content, share it with others, and discuss and debate related topics (Cho, Cannon, Lopez, & Li, 2022; Park & Cho, 2012). Individuals are able to connect with others, build communities of like-minded people who share common interests, and engage in a wide variety of forms of communication because to the fact that these platforms make user-generated information easier to access and stimulate social connections (Cho et al., 2022; Heidemann, Klier, & Probst, 2012).

According to Cho et al. (2022), the proliferation of information, news, and ideas has been made possible by social media platforms (Cho et al., 2022). As a result, individuals now have the ability to take part in public debates and contribute to social and political movements (Kane et al., 2014). In addition, business practices have been transformed as a result of social media because it has made it possible for enterprises to communicate with customers, increase brand awareness, and carry out focused marketing efforts (Aichner, Grünfelder, Maurer, & Jegeni, 2021).

This paper aims to investigate the concept of social media clusters, analyzing its definition, historical background, and scholarly research. Utilizing social media clusters can help with understanding the information flow inside social networks. Recognizing influential people, monitoring social trends, focusing marketing efforts, and comprehending how individuals use social media. Through a detailed analysis of pertinent literature, which includes research conducted by (Bruns, 2019; Dwivedi, Johnson, Wilkie, & De Araujo-Gil, 2019; Thelwall, 2022), we will acquire a thorough comprehension of social media clusters and their influence on individuals and society. A literature review on the relationship between social media platforms and research directions in each social media segment has not been conducted, as this study concentrates on a comprehensive review of previously conducted research (Casero-Ripollés, 2022; Dwivedi et al., 2021; Thelwall, 2022). Moreover, the majority of previous studies are based on narrative literature reviews (Casero-Ripollés, 2022; Thelwall, 2022). The paper will address the existing paucity of considerable literature on this topic by giving a complete and up-to-date review of social media clusters. This will lay the groundwork for future study and improve our general understanding of social media clusters. The manuscript will combine previous research findings on social media clusters, identifying patterns, trends, and knowledge gaps. This synthesis will provide a comprehensive picture of the field and suggest topics that need to be researched further. The manuscript's concentrate on a comprehensive examination of social media clusters has the potential to significantly increase understanding in this sector. Our review is driven by two fundamental research questions:

RQ1: What are the primary areas of research and current advancements within each area of social media platforms?

RQ2: What are the potential areas for conducting more influential future studies on social media?

Following an examination of the trends by means of bibliometrics, a selection of keywords pertaining to social media and previously published articles will be made for the purpose of content analysis.

2. Conceptual background

In recent years, more emphasis has been placed on paper writing in social media literature that influences consumer behavior and provides e-businesses with insights (Aichner et al., 2021). Understanding the evolving nature of social media and its implications for individuals and communities requires additional research (Aichner et al., 2021; Cho et al., 2022; Thelwall, 2022). There are now a growing number of research studies that cast light on e-commerce literature and

the impact of social media (Aichner et al., 2021). Numerous previous studies have examined the impact of social media on various industries (Thelwall, 2022). Increasingly, businesses rely on social media for marketing communication, and the majority of respondents use social media for purchasing (Heidemann et al., 2012). The impact of social media on consumer relationships and purchasing behavior is positive (Culnan et al., 2010). Specifically, social media enables businesses to communicate their generosity to potential customers (Park & Cho, 2012). Our bibliometric analysis examines a research topic that provides a summary of prominent trends and uses content analysis to systematize the review of all gaps in prior knowledge (Donthu, Kumar, Mukherjee, Pandey, & Lim, 2021). The concept of social media is crucial for marketers, who should develop strategies that emphasize consumer relationship building via social media. Briefly, social media have revolutionized the manner in which individuals communicate, interact, and share information (Dwivedi et al., 2021). Consequently, as rapidly as social media has penetrated politics, the workplace, the household, and other spheres of life, it continues to evolve at a dizzying rate, making it difficult to predict its future course (Cho et al., 2022). In 2023, there will be an estimated 4.62 billion social media users worldwide, a figure that is anticipated to rise in the coming years. As more people use social media, there is a greater need for research that can help us comprehend its impact on our lives. It has assisted us in better understanding the impact of social media on our lives. Another element that has contributed to the expansion of social media research is the increasing number of researchers who are interested in researching it. Social media is not only about having the best features but also about remaining pertinent. Social media is now a necessary component of daily life. It has altered the way we interact with the world around us, communicate, and consume news. A relatively new but significant field of study called social media clusters can provide us with more insight into the functioning of social media and its impact on our daily lives. The manner in which scholarly articles have examined social media clusters: Finding communities of interest, Monitoring the information's dissemination, and Recognizing social media's effects (Luna & Pennock, 2018; Patino, Pitta, & Quinones, 2012; Rodriguez, Peterson, & Krishnan, 2012).

3. Methodology

To answer two research questions, we employ the bibliometric analysis method, whereas the second research question uses content analysis to accomplish their objectives (Donthu et al., 2021). Within the scope of this study, bibliometric analysis is used to identify research trends on the topic of social media over the past few years. Through the number of published articles, co-author networks, and keywords, researchers can plainly comprehend the information and fields they study (Mukherjee, Lim, Kumar, & Donthu, 2022). In addition, the method for bibliometric analysis identifies pertinent scientific journals and publishers during the research period (Khan, Goodell, Hassan, & Paltrinieri, 2022). The other method that directly addresses the research questions is content analysis. By finding common themes or topics in the content of social media posts, content analysis can be used to find social media clusters (Denecke & Nejdl, 2009). By examining social media interactions' content, content analytics can be used to comprehend how social media clusters operate (Patino et al., 2012). A social media cluster's leaders or influencers, as well as the standards and beliefs that underpin it, can be found using content analysis, for instance. To find out how social media clusters are used to support or oppose social change (JafariAsbagh, Ferrara, Varol, Menczer, & Flammini, 2014), for instance, researchers can use content analysis.

Initially, this study performed a bibliometric examination of scholarly works authored by scholars pertaining to the subject of social media. Bibliometric analysis is a quantitative method for analyzing scholarly literature. It can be used to identify trends in research topics, authorship

patterns, and institutional collaboration. Bibliometric analysis can be utilized in the context of social media to monitor the field's expansion, pinpoint the most well-liked research subjects, and evaluate the contributions of specific scholars and organizations. Next, utilize the VOSviewer software to analyze and investigate the present patterns and tendencies in publishing (Van Eck & Waltman, 2019). This study employed bibliometric analysis to analyze the characteristics and trends of research articles pertaining to social media using relevant keywords. Bibliometric analysis reveals interconnected documents with variable influence across social media, as well as cross-referencing and rigorous analysis of related subjects.

Next, conduct a Content Analysis. Content analysis is a methodological approach employed in research to methodically examine and understand the substance or material being analyzed as well as identify and classify specific themes in data, in order to derive actionable conclusions and insights (Kansteiner & König, 2020). Content analysis has been used to study social media clusters and how content analysis is used to accomplish the objectives of social media cluster analysis. Content analysis in this manuscript is a systematic and objective method for analyzing text in each research paper. It can be used to identify patterns, trends, and themes in social media data. This information can then be used to understand how social media clusters are formed, how they function, and how they impact society after using bibliometric analysis. Then, identifying Social Media Clusters with common themes or topics in the content of social media papers. For example, papers that are part of the same social media cluster may be more likely to use the same keywords. Content analysis will play an important role in social media clusters.

4. Findings and conclusions

4.1. Findings

The findings indicate a consistent annual growth in the number of articles published with the term "social media" between 2010 and 2022, reaching its highest point in 2022 with a total of 4,855 published articles. Figure 1 depicts a significant surge in research articles pertaining to social media between the years 2018 and 2022. The number of papers in social media research has risen dramatically in recent years. This is due to the increasing popularity of social media, as well as the growing number of researchers interested in investigating its impact on society.

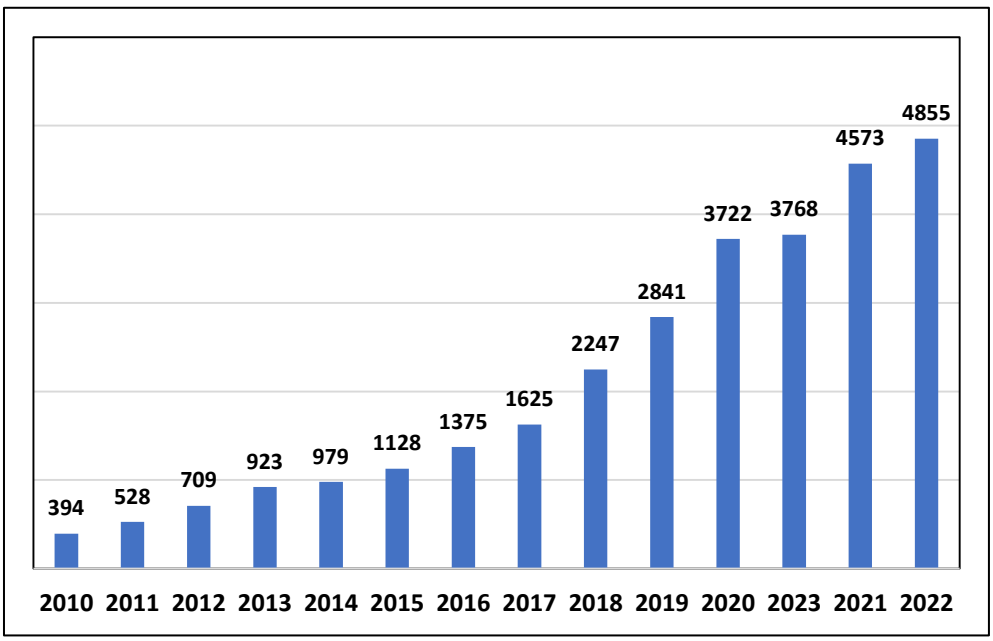

Figure 1. Articles published per year

The following list comprises the leading countries in terms of the quantity of articles published and research conducted on social media subjects. In Figure 2, the United States has the greatest number of articles, with 6,367. Following in descending order are England, Australia, Spain, Germany, and China. Countries like the Netherlands, Canada, Italy, Indonesia, and Sweden have an astounding number of published articles, estimated to be about 1,000. A combination of factors, including huge populations, high internet penetration, tech-savvy populations, and active social media involvement, drives the leading countries in terms of social media content creation. These elements provide a fertile environment for social media usage and content development, resulting in a massive amount of social media content generated in these countries.

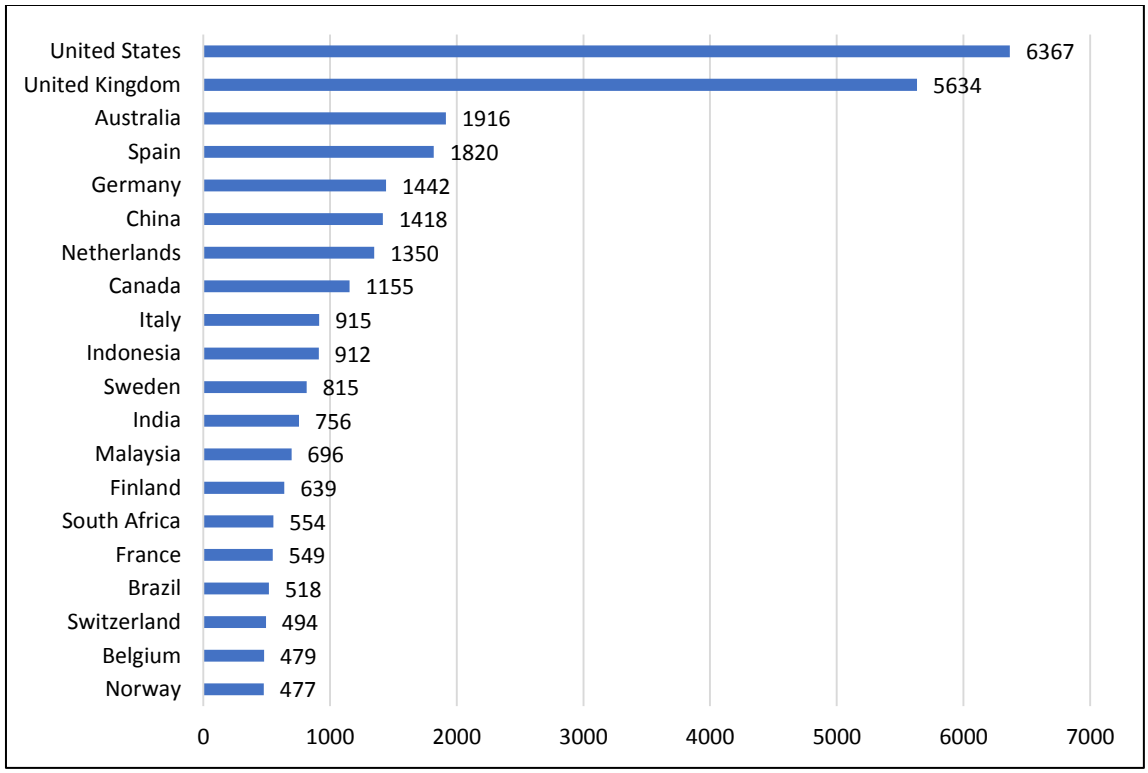

Figure 2. Articles published by countries

Figure 3 presents statistical data obtained from Scopus, indicating the number of publications on the subject of social media by universities. The top universities in terms of research articles published are the University of Amsterdam, Queensland University of Technology, and the University of Oxford, each with over 200 publications. The majority of schools possess research articles pertaining to social media subjects originating from both the United Kingdom and the United States. Because of their strong research cultures, renowned faculty, diverse research areas, commitment to knowledge dissemination, and ability to attract high-quality doctoral students, the Universities of Amsterdam, Queensland University of Technology, and Oxford have achieved a high level of research productivity in social media. These characteristics have allowed them to consistently publish a significant number of high-impact research articles. These esteemed colleges draw highly qualified PhD candidates from all around the globe, offering them resources, training, and mentorship to carry out innovative research. The total amount of research produced by the universities is greatly enhanced by these students.

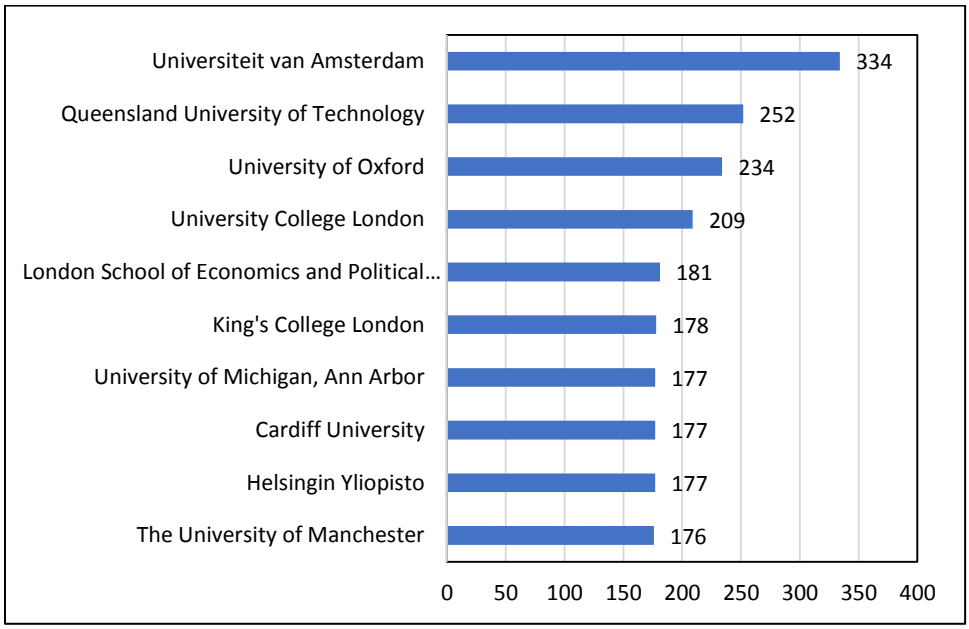

Figure 3. Articles published by Affiliation

According to the statistical data from Scopus, Figure 4 indicates that Dwivedi and his colleagues are the most prolific authors in the field of social media research, having published 33 publications on the subject. The following groups of authors are Bruns, Thelwall, Casero-Ripolles, Dhir, Fuchs, Hameleers, Matthes, Vaccari, and Ye.

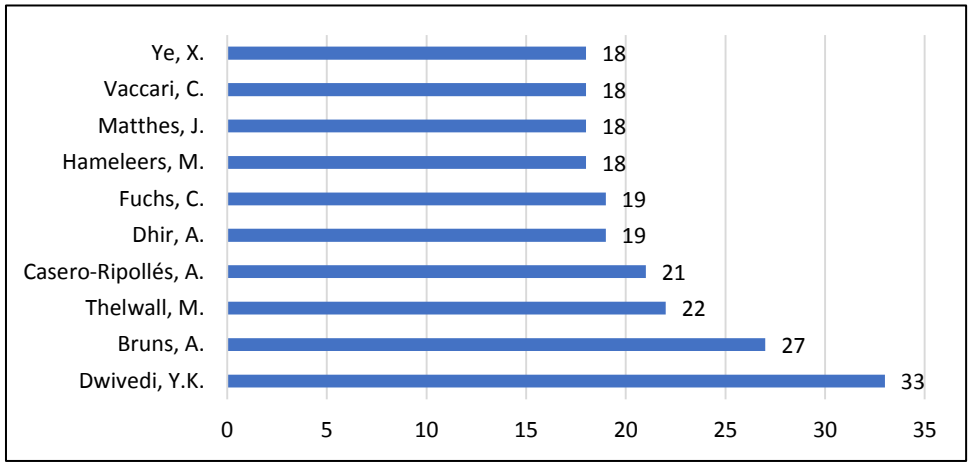

Figure 4. Articles published by Authors

Figure 5 depicts the relationship between relevant keywords, most notably social media. Figure 5 further demonstrates that there are six noteworthy clusters with distinct study areas related to social media. A graphical depiction of the relationships between keywords based on how frequently they are mentioned together in academic works is called a co-citation network of keywords in the social media fields. The prominence of a keyword is represented by the size of a node in the network, and the intensity of the co-citation link is indicated by the thickness of an edge. In social media areas, co-citation networks of keywords are useful resources for comprehending the field's intellectual framework, spotting new research directions, and learning more about how social media affects society. They give researchers a visual depiction of the connections between keywords, enabling them to examine the links between various research subjects and monitor the field's development over time. The Blue cluster with keywords like

social media marketing, influence marketing, buy intent, trust, and social media engagement. The Green cluster is a tree that investigates social media issues using the core keyword terms well-being, mental health, machine learning, social media use, and social networking sites. The phrases Media, digital media, news media, and so on are highlighted in the red cluster. The Yellow phrases include sustainability, tourism, media, SMEs, digital transformation, media coverage, and so on. The Purple cluster research encompasses social media research with new directions such as rumor, social capital, fake news, social media analysis, behavior, emotions, and so on.

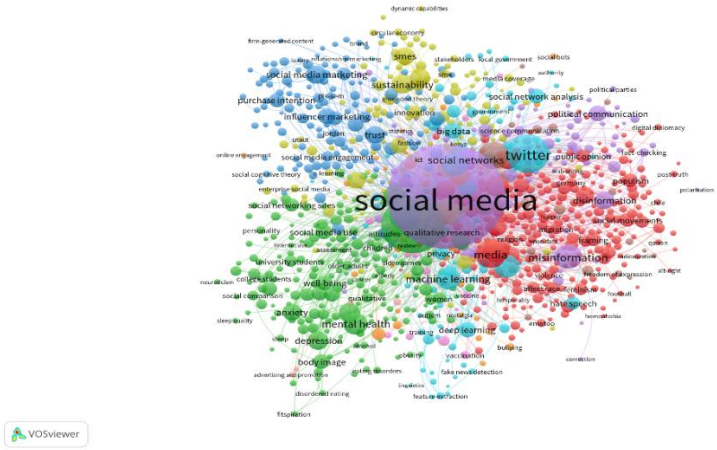

Figure 5. Co-citation network of keywords

4.2. Conclusions

This is the first study to synthesize articles on the Scopus system and systematically evaluate keywords and research directions over the period from 2010 - 2022. After using VOSviewer to systematize related data, the authors used content analysis to make future research proposals (Nees Jan van Eck, 2017). With regard to top scholars, keywords, universities, countries, and the number of papers about social media and associated subjects and disciplines, this research study has successfully addressed the main issue raised in the original research question. Social media has emerged as an essential component of daily life, and its utilization in research is becoming increasingly prevalent, particularly in the domains of advertising, online commerce, and academic research. As social media keeps changing, academics are looking for fresh and interesting ways to learn more about how it affects people's lives and society as a whole. Possible directions for further social media study based on Figure 5 and the five color clusters such as the future of social media technologies, the ethics of social media and data privacy, the use of social media for social change and activism, the impact of social media on mental health and well-being, social media's effects on various populations social media's long-term effects on society social media's part in information warfare and disinformation social media's effect on social dynamics and interpersonal relationships social media's role in education and learning its effects. In addition, the following are significant discoveries regarding the function of social media and proposed avenues for further investigation based on the above suggestion with many potential options:

Recommendation 1: Scholars should amass data on a multitude of subjects, including public opinion, health behaviors, and social networks, through the utilization of social media. To illustrate, discern research trends by means of change awareness surveys or economic crises by utilizing social media platforms.

Recommendation 2: Through content analysis, there is a lot of research interest in the social media literacy (SMILE) model (Schreurs & Vandenbosch, 2021). As a result, this model must be implemented and developed in numerous domains for research purposes. Additionally, the distinctions between social media in developed and developing nations need to be clearly distinguished through comparative research.

Recommendation 3: It is necessary to select social media and social media platforms and assess their cause-and-effect effects when investigating consumer behavior and attitudes toward information receipt. The analysis presented above indicates that the purple cluster contains a remarkable number of information-related keywords. This is a significant development in the research trend at a time when social media is swiftly populated with fake information and fake news that must be examined on a case-by-case basis.

5. Limitations and future research

This research study has effectively tackled the primary concern outlined in the initial research question, including top scholars, keywords, universities, countries, and the number of articles pertaining to social media and related fields and disciplines. Figure 5 and the findings section provide an overview of social media research works. Further, in the recommendations section, which answered the second research question, prospective domains and avenues for future investigation are suggested. Nevertheless, the existing study is still having some limitations. Firstly, it fails to conduct a comprehensive content analysis for each distinct discipline and industry. Secondly, it fails to filter Web of Science articles that pertain to the same subject matter. Hence, further investigation needs to add more data from the Web of science and do content analysis. Use data from Scopus and further refine Web of Science data pertaining to each sector and in conjunction with the aforementioned suggestions for future works.

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