Makale Türü/Article Type: Araştırma Makalesi/Research Article

SOCIAL MEDIA TOOLS: A BIBLIOMETRIC ANALYSIS BASED ON WEB OF SCIENCE DATA (2000-2023)

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Abstract

The concept of social media tools is rich in terms of grammatical categories that regulate the relationship between the action and the participants in the event described in the action, where the action is shaped according to the subject and object. At the same time, the concept of social media tools has gained the function of an umbrella concept by creating a word pool by shaping the relationship of the action with the participants in the event with certain suffixes. The concept of social media tools has gained the function of an umbrella concept by forming a word pool by shaping the action according to the subject and object in a rich structure in terms of grammatical categories that regulate the relationship between the action and the participants in the event described in action, and the relationship of the action with the participants in the event. The concept of social media tools and their use, which is used as a socio-economic element or content in many fields such as information technologies, education, communication, public relations, advertising, marketing, health, business, economy, finance and banking, politics, etc., has recently been the subject of much academic research and numerous studies in the literature. Due to social media tools' intricate and complex nature, performing a bibliometric analysis of intertwined research topics will provide a panoramic perspective to researchers and organizations in different disciplines. The research aims to evaluate the status of social media tools in the international literature within the framework of descriptive analysis through the document review method. For this purpose, after searching the Web of Science database and the necessary limitation procedures, 26,283 scientific studies published between 2000 and 2023 that include the concept of social media tools in their research, title or keywords or have the content of social media tools were accessed. A total of 26,283 scientific studies constituted the sample of the survey. A total of 26,283 scientific studies with social media tools content were analyzed with the VOS viewer program to determine the scientific categories and orientation of interest in the subject of social media tools, and the prominent country, organization, author and keyword concept units were reached with the publication-citation mapping technique. As a result of the research, it was determined that articles ranked first in terms of document type in social media tools research, and there has been a steady increase in the number of studies since 2013 in parallel with the widespread use of social media tools worldwide. Again, since the studies on social media tools are generally co-authored, a high collaboration index in survey fields draws attention.

Keywords: Social media, Bibliometric analysis, Web of science.

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Duzce University Journal of Social Sciences,   Vol: 14, Issue: 1

Introduction

Social media tools are a set of digital platforms that users utilize for multiple purposes in the fields of entertainment, information, communication, economy, business and agenda tracking, online shopping, etc. As people are generally addicted to social media tools, it has become a necessity for people or organizations whose target audience or potential and existing customers are on these platforms to have a presence on social media tools. (Saçan & Eren, 2022: 179). Despite the many studies on social media tools in the literature, the fact that there is no research that evaluates or examines the status of the concept of social media tools in the international literature with the document review method within the framework of descriptive analysis makes the research remarkable. The research is important in terms of evaluating the status of scientific research on social media tools in the international literature through document review method within the framework of descriptive analysis. The research is also important in terms of categorizing the scientific categorization on social media tools, as well as classifying the common conceptual association of research on social media tools by countries, organizations, authors and keywords with the publication-citation mapping technique. The research seeks answers to the following basic questions: In which scientific field is there the most research on social media tools? What is the distribution of publications by countries and organizations on social media tools? What are the important research studies in the field? Who are the most prolific authors? How does keyword clustering occur in research on social media tools? What are the topics with common conceptual associations related to social media tools? Nowadays, there is a need for bibliometric analysis of the concept of social media tools, whose phenomenological plane is constantly expanding by attracting the attention of almost every branch of science and is used in many fields or in many areas. In addition, it is among the issues that need to be researched because the public, researchers, academics, business managers and consumers want to know in which areas social media tools and their use are effective.

1. CONCEPTUAL FRAMEWORK

1.1. Social Media Tools and Usage

Social media tools and their use are defined as an environment where people can freely express themselves through real or fake accounts, freely prove their existence in society and meet their needs to share thoughts, self-realization or socialization. Again, this environment, which is created with individual or institutional consent, is a means of entertainment for individuals, the widest provider of socialization environment and a means of representation in the production of self or identity (Işık & Kaptangil, 2018: 698). People generally use social media tools for a wide variety of purposes such as socializing, entertainment, information, news search and content sharing, relaxation, leisure, personal presentation, interaction, social escape. Many people also use social media tools for a wide variety of purposes and motivations, such as creating panic, manipulation, provocation, or creating perceptions in line with their own thoughts or trying to change the thoughts of other users (Sine Nazlı & Kara, 2020: 136). In addition to being the most preferred means of communication in the socio-economic daily lives of individuals, social media tools and usage are also used as a means of activities in which individuals produce content shares such as all kinds of words, photos, videos, chats, live broadcasts, etc. about events, people, products and services, or read and follow unlimited thoughts, discussions, comments, criticisms, likes and information shares. The adaptation or habituation of countries, society and people to the use

of social media tools, and the widespread use of social media in all areas of socio-economic life is an inevitable result of the process of directing the events experienced in daily life. Thanks to the ease of access and the abundance of alternative information on social media, it is known that all small, medium and large enterprises are trying to influence consumers through social media through which they carry out their marketing activities. Recently, paid and traditional media tools have been replaced by free social media tools, all kinds of words, photos, videos, chats, live broadcasts, etc. are shared through social media tools, which are rapidly increasing in number with their diversified features, and online marketing media and websites are used by various global or corporate businesses and brands to attract the attention of consumers.

The development of internet usage has radically affected the social lives of individuals and the communication strategies of private and public organizations by triggering the widespread use of social media tools and providing individuals with self-confidence and feelings of self-empowerment by creating their own private pages in their socio-economic lives (Koçyiğit, 2022: 60). Social media tools are virtual written and visual media created using highly accessible and scalable techniques designed to spread rapidly through social interaction and communication. The conscious or unconscious use of social media tools leads to all kinds of positive and negative consequences. Recently, social media tools have become increasingly popular due to their easy access, simplicity of use, rapid spread and low cost. However, it has turned into a platform that facilitates the dissemination of false or misleading news, information and is open to manipulation and has become a platform where people's perceptions are created or directed, as well as people's thoughts are changed or influenced. By using important values such as freedom of expression, tolerance and empathy, users on social media tools contribute to the rapid spread of their posts as a result of the impact of their posts, increasing their popularity and becoming a phenomenon. Despite all the negativities, users who develop social media literacy by reading different thoughts, discussions, comments and criticisms on all kinds of written and visual posts on social media tools can make different comments by gaining wider information about daily events and the agenda. In addition, while many new jobs and various professions have emerged through social media in recent years, products and services in existing jobs and various professions can be carried out through digital marketing activities through social media tools. Today, the use of social media tools in marketing, which attracts the attention of the public, researchers, academics, businesses and consumers, is among the prominent issues that are increasing in popularity.

1.2. The Impact and Importance of Social Media Tools and Usage

All kinds of written and visual posts on social media tools support the importance and development of marketing communication and are still sustainable and expanding today. The most well-known content consumption channels are classified as blogs, micro blogs, chat sites, forums and internet dictionaries, social networks, social networking sites, wikis, social marking and tagging sites, podcasting and virtual worlds and social media tools (Akar, 2010: 53). The recent diversification of social media tools and the differentiation of their usage features cause users to have accounts registered in all kinds of social media tools and all kinds of words, photos, videos, chats, live broadcasts, etc. that are shared only in one social media tool are also shared in other social media tools. The use of social media tools, which is an online network where users publish or share the content they produce themselves, facilitates fast access between individuals and organizations due to the fact that it is actively and widely preferred by

many individuals and organizations and at the same time has a high usage rate. Social media tools enable users to follow content, articles, thoughts, comments, news and events, agenda, articles, videos or photos. Again, all kinds of entertainment content can be seen through social media, and the ability to share user opinions with other social media users creates an important opportunity for promotional, marketing and sales-centered easy orientation activities in terms of ideas, products and service.

Social media tools, which are technically accessible to almost every individual and can be used effectively in all areas and times of daily socio-economic life, have the potential to affect the general or specific relationship level of individuals (political, social, economic, cultural, etc.) and can cause a social media addiction throughout the society in terms of usage preferences for the desires and needs of the individual (Babacan, 2016: 7). The number, variety and functions of social media tools that provide unlimited information access by facilitating daily communication and interaction life are constantly increasing. Among the most used social media tools worldwide are Youtube, Facebook, Instagram, Twitter and WhatsApp, respectively, and WhatsApp and Instagram are more prominent among the social media tools used intensively in business and commercial life as well as phenomena. Social media tools include the use of information technologies and management information systems, which are among the strategies and methods in communication and information dissemination activity processes, and have an important and effective power by their users, especially in terms of all kinds of research and decision-making. In terms of its impact and importance, communication and interaction through social media facilitates the socio-economic growth and welfare of users and societies, enables individuals to learn about each other and encourages them to connect or communicate with each other.

Artificial intelligence-supported social bots can perceive, think or act in similar ways to humans through social media tools, and social bots can perform many harmful actions such as misinforming people, escalating debates, fraud and manipulation (Hajli et al., 2022: 1238). In addition to the difficulties that can be experienced in real life, sharing content such as all kinds of words, photos, videos, chats, live broadcasts, etc. that may cause misinformation or disinformation in line with personal political and socio-economic thoughts or opinions through social media tools can lead to false or irreparable consequences about businesses, products and services in socio-economic terms (İri, 2023: 47). All kinds of words, photos, videos, chats, live broadcasts, etc. that are shared on social media in order to attract attention and become popular can positively or negatively affect the development of daily events, the change or manipulation of people's perceptions, the creation of legal rules or laws, and the protection of individual and business rights. Social media tools with high popularity are among the places where users with common interests come together and form communities. Users who connect and form communities through social media tools become more authoritative, dominant and empowered by sharing their posts on social media tools for the purposes of public opinion, public relations, advertising and promotion, attracting attention and raising awareness. The fact that it has an immediate and proactive impact on the emergence, development and realization of every event experienced in daily life and on every aspect of socio-economic life reveals the power of social media tools and the posts made through social media tools.

The interpretation of social media tools and their use as mediating the fulfillment of some people's need to feel powerful has enabled the positioning of looking powerful such as

gaining prestige, respect, competition, fame and feeling important to be measurable with the number of likes, followers and friends or blue tick approval obtained through social media tools (Bozkurt & Bozkurt, 2022: 188). Today, social media tools, which are generally used as a marketing communication tool, are also among the most basic and most important strategic actors of promotion, advertising and marketing activities.

2. LITERATURE RESEARCH

In particular, the widespread use of mobile phones as portable computers makes it easier for many people to access social media tools via mobile phones. In the literature, it is seen that research on social media tools has increased rapidly in recent years. It can be said that the fact that all kinds of words, photos, videos, chats, live broadcasts, etc. shared through social media tools affect the development of daily events, the change or manipulation of people's perceptions is effective in increasing the number of researches (İri, 2023: 49). The fact that there is no research that performs bibliometric analysis by centering the concept of social media tools, which is used as an umbrella concept in the literature, makes the research remarkable.

Table 1. Research in the Literature

Researcher and Year	Research Results
Liu (2010)	Among users that the three most preferred social media tools among users are Facebook, Wikipedia and YouTube, and that the top four reasons for using social media tools are social participation, referral communication, feedback speed and establishing relationships.
Köseoğlu & Hamza (2013)	They concluded that the use of social media tools contributes to participatory democracy, and although it is an effective propaganda tool, it causes information pollution and disinformation as well as creating fear of being plugged in individuals.
Agostino (2013)	It was found that social media use is directly related to citizens' awareness of local governments' social media presence.
Solmaz et al. (2013)	They concluded that the reasons for using social media tools include sharing photos and information, having fun and relaxing, spending leisure time, having information or accessing information, sending and receiving messages, following events or the agenda, reaching people and organizations with their contact information, and exchanging ideas.
Aytan & Telci (2014)	They found that the marketing activities of brand businesses through social media tools are effective on consumers' purchasing decisions and behaviors.
Lam (2015)	He concluded that students engage in learning using WhatsApp, Skype and Facebook to transfer, share and construct knowledge among peers through social media tools and that collaboration has relationships with learning outcomes, engagement and other influential factors.
Durak ve Seferoğulu (2016)	Among the internet usage purposes of the participants, "social media usage purpose" ranks first, and they use social media tools for

"entertainment" purposes such as watching videos, using social media applications and playing games, and a significant majority of users use social media for activities such as sharing and setting the agenda in addition to entertainment purposes. are active users.

Aktan & Koçyiğit (2016)	They concluded that social media tools have a positive role on the touristic preferences of individuals thanks to their interactive nature and that they guide touristic preferences in an important way.
Şengöz & Eroğlu (2017)	They concluded that businesses' interest in social media shows sectoral differences, they want to benefit from the positive aspects of social media such as direct access to the target audience, low cost, fast, practical and interactive structure, they respond to the questions and complaints directed to them via social media to a great extent, they mostly follow their customers and competitors on social media, but they do not have social media policies for their employees and do not measure their social media activities.
Şahin & Yağcı (2017)	They developed the Social Media Addiction Scale to determine adults' addiction to social media tools.
Zyoud et al. (2018)	In terms of bibliometric analysis of social media tools in psychology, US institutions (universities) play a dominant role, and the most preferred topics related to social media tools in psychology are personality psychology, experimental psychology, psychological risk factors and developmental psychology.
Küçükali & Serçemeli (2019)	They concluded that the primary social media tool used by academics is Whatsapp, that the purposes of use are generally entertainment, keeping up to date with their relatives and providing development on professional issues, and that they are very careful in terms of privacy settings and legal responsibilities on social media.
Sarwar et al. (2019)	They concluded that social media tools serve as a dynamic tool that accelerates the development of learning environments by encouraging collaboration and communication among students, thereby strengthening students' learning behaviors and performance, and that there is a negative relationship between perceived enjoyment and collaborative learning.
Sağar (2019)	He found that divorced adults were more addicted to social media tools than married adults and that adults with low monthly income had higher virtual tolerance.
Esen vd. (2020)	They concluded that there is a positive relationship between the level of use of social media tools and financial performance of the companies in the BIST 100 Index.
Özdemir (2021)	It has been determined that Generation Z uses social media tools more effectively and provides the functional features of mass media through social media tools.
Sun et al. (2021)	Sosyal medya araçları üzerinden dilbilim bibliyometrik They stated that the research was published in interdisciplinary journals such as politics, education, psychology and anthropology, Twitter was the most frequently used social media platform, followed by Facebook,

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	Blogs, Instagram and YouTube, and English was the most frequently used language in the social environments researched.
Susur & Gencer. (2021)	In addition to the advantages provided by social media tools, they concluded that social media tools are widely used in digital marketing due to their role in the consumer purchase decision process and their measurability, and that businesses attach importance to social media marketing due to the wide impact of social media tools and their low cost.
Chaudhari & Pawar, (2021)	According to the bibliometric analysis findings, it shows that propaganda activities carried out through social media tools are mostly studied in the field of social sciences and computer sciences.
Bozkurt & Bozkut (2022)	Inadequate fulfillment of some basic psychological needs increases the level of addiction to the use of social media tools, while adequate fulfillment decreases addiction.
Varsak, (2022)	He found that as social media use increased, religious beliefs and behaviors decreased and there was a negative relationship between social media use and religious beliefs and behaviors.
Salih & Gökbudak (2022)	They found that social media tools are politically influential on young social media users.
Argın (2023)	The survey concluded that social media tools played an important role in conveying messages such as solidarity and solidarity calls, under-rubble information, sharing news, information and announcements, and ensuring coordination during the 2023 earthquake in Turkey.
İri (2023)	During the 2023 earthquake in Turkey, social media users mostly used Instagram, Twitter and Whatsapp applications to generate content. follow their posts or actively share content and use social media tools The study concluded that sharing content such as words, photos, videos, chats, live broadcasts, etc. affected feelings of sadness, unity and solidarity, and helplessness the most.
Ali et al. (2023)	Concluded that the use of social media tools has seen growth in the literature on the subject in various subject areas such as business, management and accounting, environmental science, decision science, engineering, arts and humanities.
Şavklı & Koç (2023)	They found that people have a low level of desire to be liked and a medium level of desire to be visible through social media tools.
Karakuş & Tarhan (2023)	It was determined that university students intensively use social media tools, that they generally prefer Whatsapp and Instagram among social media tools, and that women use social media tools more than men.

When the research on social media tools in the literature is examined, it is seen that the researches on education, marketing, psychology, communication, finance and economics are predominant, the reasons why users prefer social media tools and the most used social media

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tools are related to the subject and the results such as the advantages and disadvantages of social media tools are reached.

3. BIBLIOMETRIC ANALYSIS OF RESEARCH ON SOCIAL MEDIA TOOLS

Bibliometric analysis is an extremely popular, preferred and rigorous method for researching and analyzing large and voluminous scientific data sources and evolutionary details of a particular field (Donthu et al., 2021: 285). Again, as a result of bibliometric analysis, the studies in the field of research are statistically examined in terms of author, subject title, keyword, cited work, cited source, etc. and the conceptual, intellectual and social structure of the discipline being researched is revealed (Bozkurt & Çetin, 2016: 232). Within the scope of the research, firstly, the studies containing the term "social media" in the research title, abstract or keywords were scanned by logging into the Scopus database and the data on the 26,283 results obtained were transferred to the R program and bibliometric analysis was performed.

3.1. Purpose and Method of the Research

The research aims to evaluate the status of the concept of social media tools in the international literature within the framework of descriptive analysis by document review method. The data set created from 26,283 scientific researches in the Web of Science (WOS) database between 2000 and 2023 will be analyzed through the Vosviewer program within six research questions in line with the purpose of the bibliometric research. First, with the help of certain bibliometric indicators, an overview of the 26,283 studies will be presented, and the prominent organizations and leading countries in the field with their important journals, articles and prolific authors will be identified. Then, bibliometric methods such as citation analysis, co-citation analysis and common word analysis were used to map the scientific field of social media tools literature. By citation analysis, the strength of the connection between highly cited articles in the field with co-citation analysis, the density and strength of relationships between co-cited studies, through common word analysis, concepts related to social media tools were identified.

Within the scope of the research, network analysis technique, which is a method used to examine and understand systems in which connections and relationships interact with each other, was also utilized. Network analysis is used to understand the structure and dynamics of networks, identify patterns, identify central players and groups, and examine information diffusion. Another example of approaches to dealing with the complexity of large data sets is the use of network analysis methods to map research areas (Sinkovics, 2016: 328). In this research, although bibliometric analysis was used as a tool for literature analysis, network analysis was used to understand the structure of networks, identify patterns, and visualize the complexity of large data sets. VOSviewer 1.6.20 was used to create network maps and visualize the literature. Network analysis, which is carried out to identify trends in the research field and to quantitatively evaluate and visualize bibliographic material, reveals the relationships and interactions between dimensions by examining the collaboration between countries, the author-publication-citation network, and the frequency of keywords used together in a data set (Li et al., 2020:1-22).

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3.2. Data Set

The research data range was determined as 2000-2023 since the first research with social media tools was conducted in 2000 in the process that started with the use of social networks and digital media concepts in the field until 2000 by searching for research in the field of social sciences under the main theme of "social media tools" in the titles in the Web of Science database. The methodological summary of the survey is shown in Figure 1.
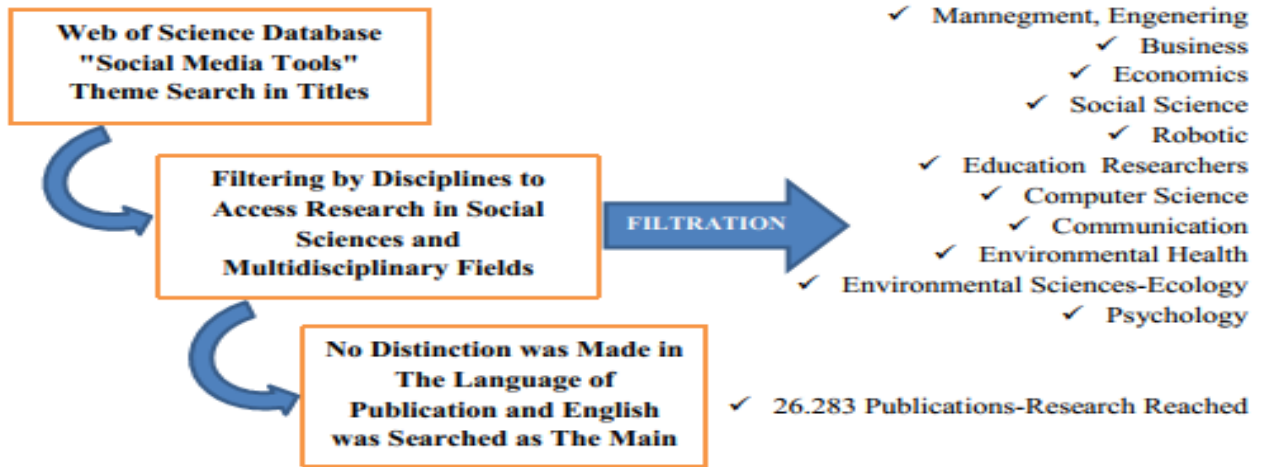

Figure 1: Medological Flow of the Survey

It was determined as the data set of the 26,283 research-publications in Figure 1. In addition, while it was determined that the academic language used in the books, book chapters, articles and proceedings accessed was mostly English, it was also determined that there were studies in Chinese, French, German, Portuguese, Russian, Portuguese and Spanish.

4. THE ANALYSIS AND FINDINGS OF THE RESEARCH

Table 2 presents information on the types and number of studies conducted in the field of social media tools.

Tablo 2. Research Types and Numbers

Publication Type	Number of Research	%
Article	17283	65,76
Full Text Paper	5657	21,52
Review Article	1281	4,87
Book Chapters	823	3,13
Early Access	697	2,65
Editorial Material	261	,99
Özet Bildiri	74	,28
Book Review	24	,09
Book	6	,03
Others (Note, Correction, Data Paper)	177	,68
Total	**26.283**	**100**

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It is seen that out of a total of 26,283 studies conducted in the field of social media tools between 2000 and 2023, the highest number of 17,283 were prepared as articles and the lowest number of 6 were prepared as books.

Table 3. Distribution of Research by Years

Years	Number of Research	%
2000	25	,09
2001	22	,09
2002	24	,09
2003	46	,17
2004	38	,14
2005	71	,27
2006	81	,31
2007	112	,42
2008	164	,62
2009	233	,88
2010	375	1,42
2011	599	2,28
2012	818	3,11
2013	1069	4,07
2014	1318	5,02
2015	1655	31
2016	1821	6,93
2017	2056	7,82
2018	2278	8,67
2019	2523	9,60
2020	2810	10,69
2021	3119	11,87
2022	2938	11,18
2023	2088	7,95
Total	**26.283**	**100**

Table 3 and Figure 2 shows that the total number of 26,283 studies conducted in the field of social media tools between 2000 and 2023 has increased in a parabolic manner over the years. Especially in parallel with the widespread use of social media tools across the world, there has been a steady increase in the number of studies since 2013.
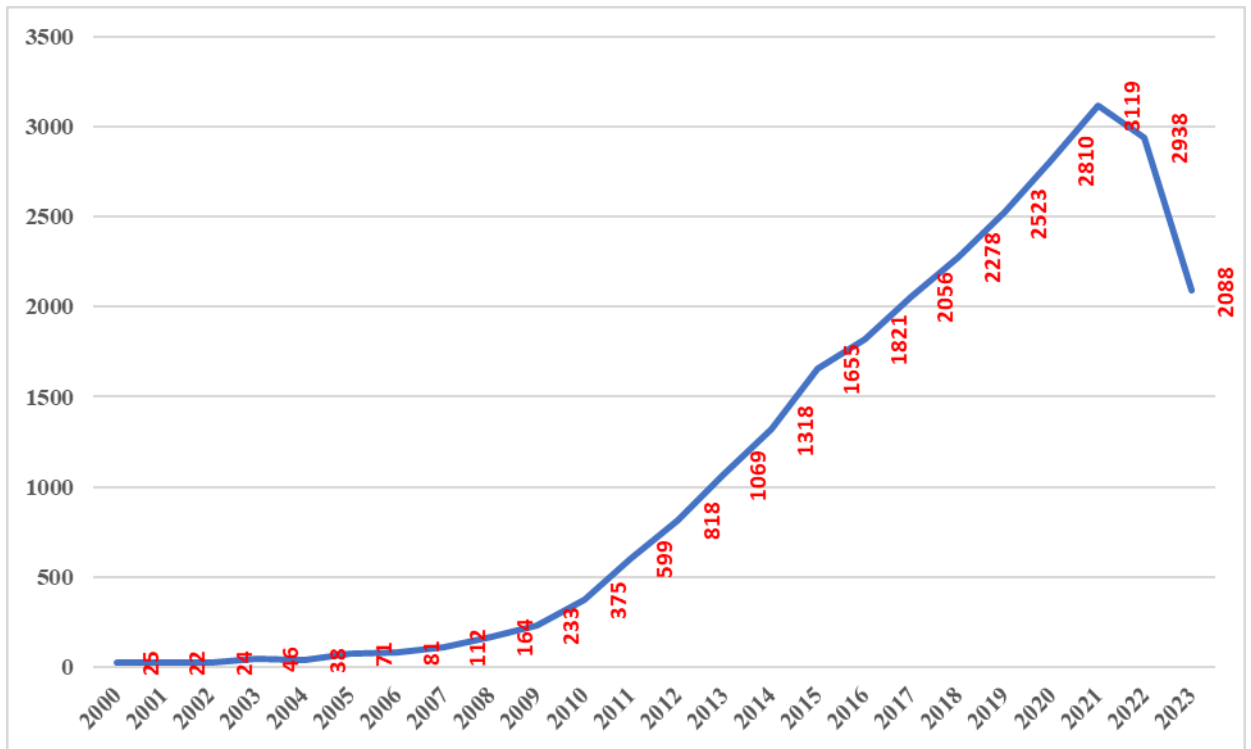
Figure 2. Annual Number of Publications of Research

Table 4 shows the results of the studies on social media tools in terms of publication categories and research areas.

Table 4. Number of Researches According to Scientific Research Areas

Research Areas	Number of Research	%
Computer Science Information Systems	5654	21,51
Communication	3412	12,98
Education Educational Research	2987	11,36
Computer Science Theory Methods	2976	11,32
Business and Management	2421	9,21
Computer Science Interdisciplinary Applications	1968	7,49
Engineering Electrical Electronic	1357	5,16
Information ScienceLibrary Science	1213	4,62
Social Sciences Interdisciplinary	1152	4,38
Psychology	1098	4,19
Marketing	1027	3,91
Others	1018	3,87
Total	**26.283**	**100**

Table 4 shows that 37.99% of the research on social media was conducted in the field of technical sciences and 62.01% in the field of social sciences.
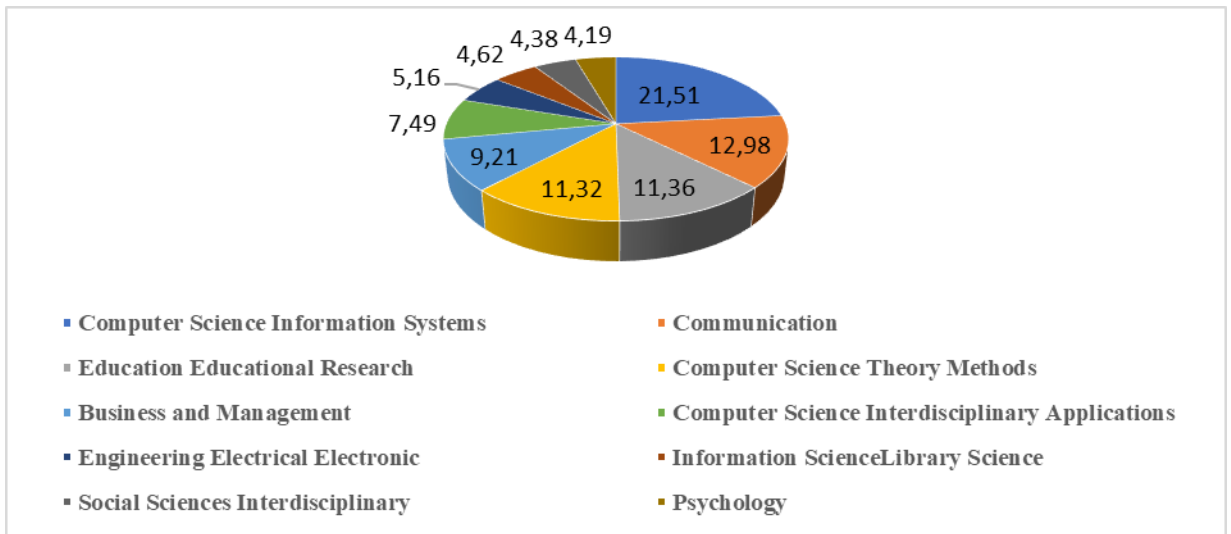
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- Computer Science Information Systems
- Communication
- Education Educational Research
- Computer Science Theory Methods
- Business and Management
- Computer Science Interdisciplinary Applications
- Engineering Electrical Electronic
- Information ScienceLibrary Science
- Social Sciences Interdisciplinary
- Psychology

Figure 3. Categorization of Research by Scientific Field Types

According to the data in Figure 3, most research on social media has been conducted in the field of Computer Science Information Systems (21.51%), Communication (12.98%) and Educational Research (11.36%).

Table 5. Publication Numbers and Citation Numbers by Country

Broadcast Countries	*Documents*	*Citations*	*Link Strenght*
United States of America	6168	134086	11881
The United Kingdom of Great Britain	2408	47882	5640
Spain	2076	28240	3270
China	1624	24812	2895
Australia	1390	22546	2804
İtaly	1246	20401	2430
Canada	1226	19243	2388
Germany	1162	16308	2143
İndia	1120	15615	1630
Netherlands	605	13247	1434
Turkey	560	12039	1101
Other Countries	6698	126453	8016
Total	**26.283**	**480872**	**45632**

According to the research on the number of publications and citations of social media tools by country, the United States of America ranks first with 6,168 studies, The United Kingdom of Great Britain ranks second with 2408 studies and Spain ranks third with 2076 studies.
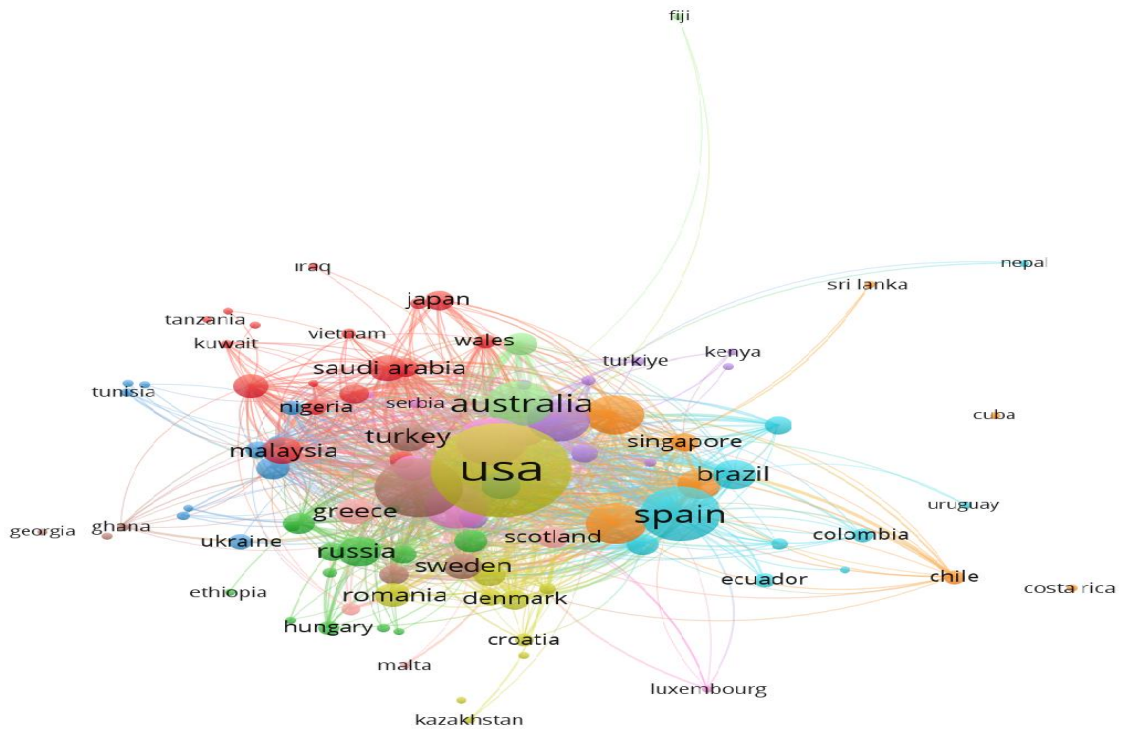
Figure 4. Network Analysis of Publications' Collaboration between Countries

Another type of analysis, which is mostly preferred in bibliographic analysis research, is the realization of the publication citation network map of the countries of the publications, and the collaboration network analysis of the publications in the literature on social media between countries is shown in Figure 4. United States of America represents the yellow cluster with 134086 citations and 111881 link strength. The United Kingdom ranks second and represents the brown cluster with 47882 citations, 1796 citations and 5640 total link strength. Spain represents the blue cluster with 28240 citations and 3270 link strength.

Table 6. Distribution of Authors' Publications and Citations on the Concept of Social Media Tools

Author	Documents	Citations	Link Strenght
Califano, Gianluigi	9	108	375
Young, Sean	8	86	374
Capece, Marco	8	98	333
Chan, Teresa M.	10	364	75
Loeb, Stacy	6	62	61
Manca, Stefenia	10	459	44
Papadopoulos, Symeon	14	1167	43
Popescu, Elvira	13	593	39
Total	**78**	**3137**	**1344**

In bibliotmetric analyses, another issue that generally has a certain importance in terms of academic evaluation is the determination of the researchers or authors who have contributed the most to the field and the strength of the connection with the number of citations made as

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well as the number of researches conducted by the author. Table 6 shows the author publication and citation distributions of the top 8 researchers with at least 2 publications and 10 citations out of 10186 authors who published on the subject of social media between 2000-2023. According to the number of publications and citations made by authors on social media, Papadopoulos and Symeon ranked first with 14 studies and 1167 citations, Popescu and Elvira ranked second with 13 studies and 593 citations, and Manca, Stefenia ranked third with 10 studies and 459 citations.
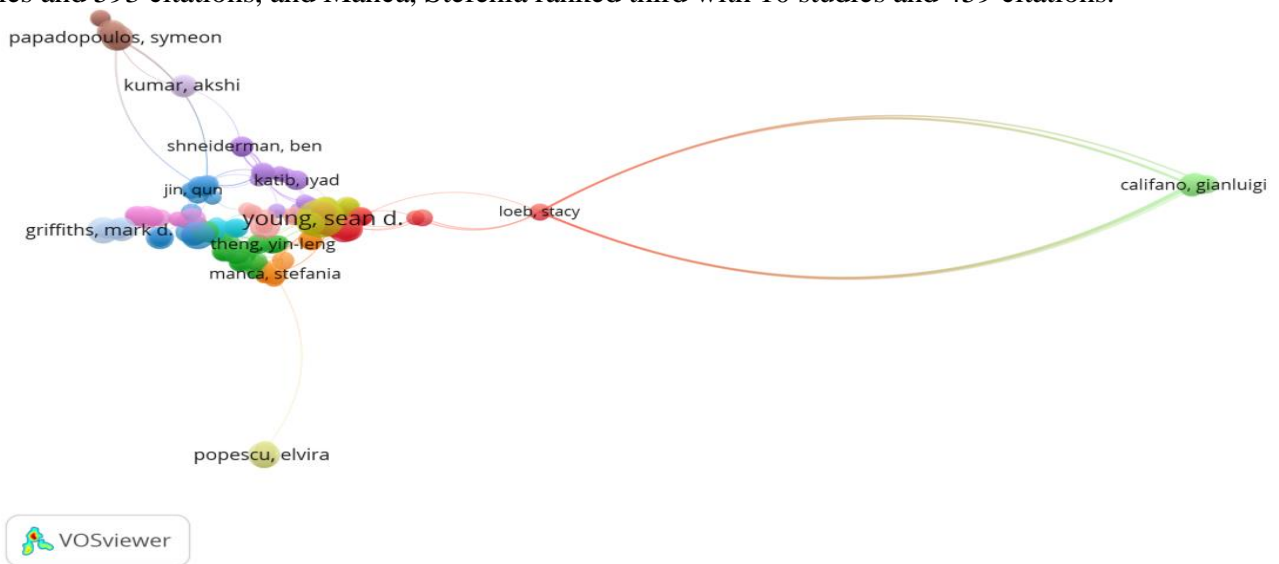

Figure 5. Author Publication-Citation Network Analysis on the Concept of Social Media Tools

The author publication and citation network map analysis conducted in the literature on the concept of social media tools is presented in Figure 5. For the co-citation analysis of the authors, the minimum number of citations of an author was determined as 10. Of the 10186 authors who met this criterion, 8 exceeded the threshold value and therefore, a total of 16 authors are included in the mapping. The authors were divided into 5 different clusters according to the results of the co-citation analysis, and the number of author publications and citations related to social media revealed that there is a dense clustering in Young and Sean.

Table 7. Distribution of Publications and Citations on the Concept of Social Media Tools by Institution (Top 10 Institutions) Countries of Publication Documents Citations Link Strenght

Published İnstitutions	Documents	Citations	Link Strenght
University Michigan	150	4839	555
University Melbourne	141	4715	541
Stanford University	132	4244	493
University Louswille	127	3657	458
University Singapore	116	3248	392
University Toronto	109	2756	378
University Alberta	106	2563	362
NorthwesternUniversity	97	2370	359
University Minoseta	87	2153	343
Michigan State University	83	2098	321
Total	**1148**	**32643**	**4202**

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As can be seen in Table 7, among the top 10 institutions contributing the most to the field in terms of number of publications, University Michigan ranks first with 150 publications and 4839 citations, University Melbourne ranks second with 141 publications and 4715 citations, and Stanford University ranks third with 132 publications and 4244 citations.
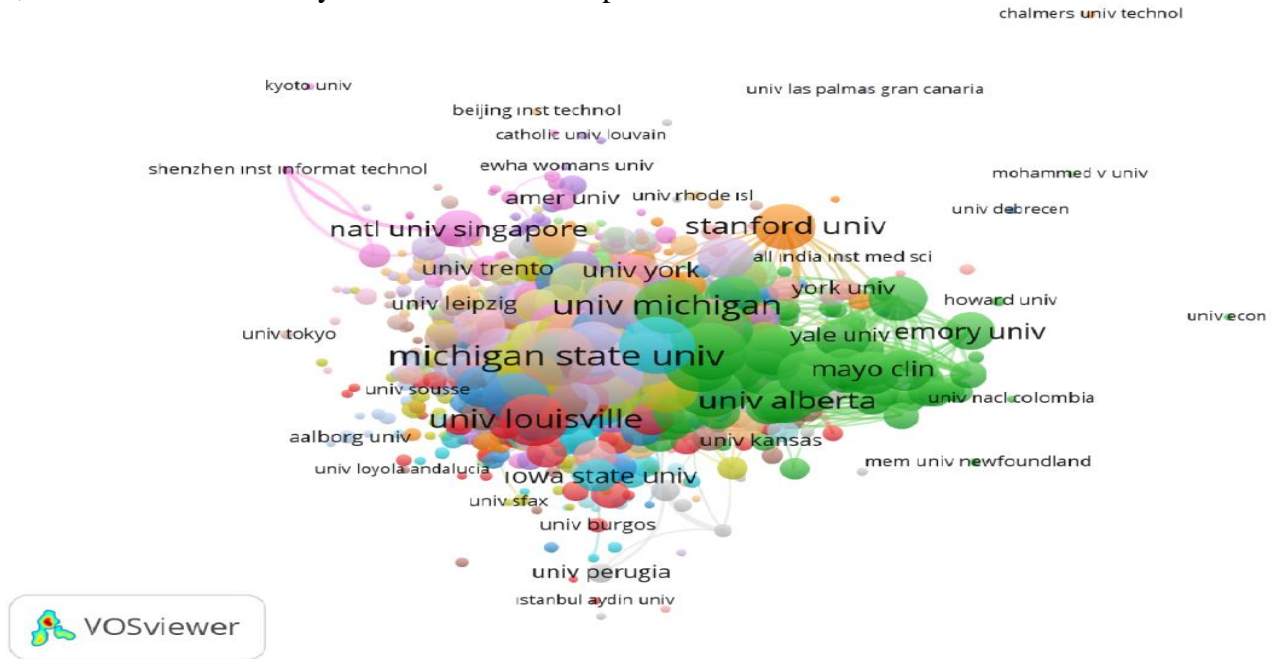

Figure 6. The Institution Where Publications on the Concept of Social Media Tools are Most Frequently Published - Attribution Network Analysis

The publication citation network analysis of 256 institutions, which were created with the condition of at least 20 publications and 10 citations among 4256 institutions publishing on social media, is shown in Figure 6, and it is revealed that there is a dense cluster of University Michigan and Michigan State University.

Table 8. Distributions of Common Concept Associations Related to Social Media Tools

Keywords	Concepts	Total Link Strenght
Social Media	5931	11667
Twitter	1290	3334
Facebook	837	2079
Covid 19	714	1721
Social Networks	686	1583
Communication	568	1352
Internet	509	1273
Education	442	1128
Technology	374	894
Media	327	732
Instagram	292	696
Youtube	236	578
Digital	191	413
Total	**12397**	**27450**

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The 13 most frequently used concepts related to the expression social media tools are given in Table 7. The concept of social media tools constitutes the most frequently used keyword social media (5931). Again, the concept of social media is listed as Twitter (1290), Facebook (837), Covid 19 (714), Social Networks (686) Communication (568), Internet (509), Education (442), Technology (374), Media (327), Instagram (292), Youtube (236) and Digital (191). Likewise, it is seen that the same concepts are ranked similarly in terms of connection strength.
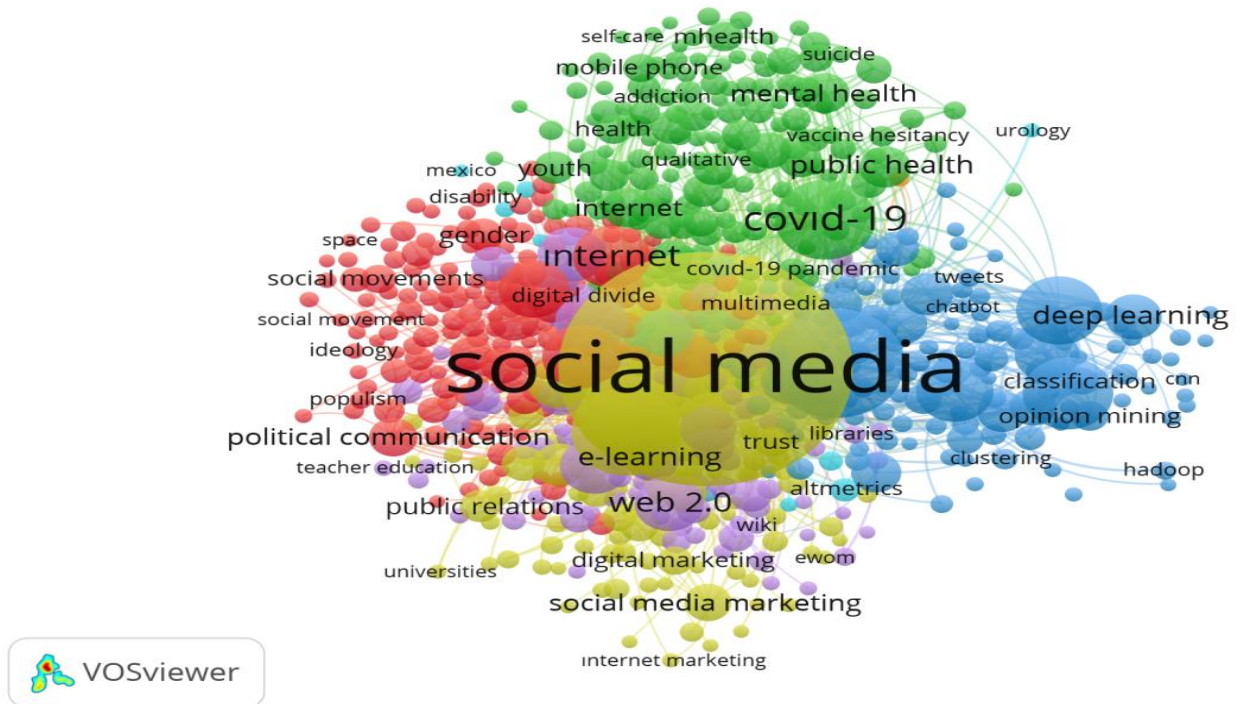

Figure 7. Network Analysis of Key Concept Associations Related to Social Media Tools

Figure 7 shows the concept association analysis in which there are 5 clusters with 219 key concepts that reveal the panoramic structure of the studies on social media with the condition that 12397 different key concepts of 26283 studies on social media tools are associated at least 10 times. Among the clusters formed, the concepts of social media in the yellow cluster, Covid 19 in the green cluster, education in the blue cluster, communication in the red cluster and internet in the purple cluster are concentrated.

RESULTS AND DISCUSSION

With the increase in digital propaganda activities as a result of the emergence of social media tools, all kinds of words, photos, videos, chats, live broadcasts, etc. realized through social media tools, especially in natural disasters, wars, sports organizations and election processes, since it is not possible to be controlled by a certain person, group or authority. Content sharing is used as a propaganda tool to manage the psychology of society by creating public opinion and agenda by individuals or non-governmental organizations and directing the events experienced by social media users by creating perceptions with emotions, thoughts, likes, criticisms, comments and approvals or directing the perceptions created (Akar &

Ekmekçi, 2023: 126). In particular, the preference for the use of social media tools among marketing communication activities has a strategic importance in eliminating various ethical problems and complaints that may arise due to misleading, disinformation and misinformation that may arise, and in contributing to or helping to raise awareness of the use of social media tools and social media tools literacy.

In order to provide an overview of the conceptual, evolutionary and intellectual structure of the social media tools literature, a bibliometric analysis of 26283 studies was carried out with the dataset obtained from the WoS database. First, in order to provide an overview of the social media tools literature with the help of a number of bibliometric indicators, the leading universities and leading countries in the field with important journals, articles and prolific authors were identified. Bibliometric methods such as citation analysis, co-citation analysis and co-word analysis were then used to map the scientific field of social media tools literature. Since 2010, there has been a rapid increase in the number of all kinds of research on social media tools, especially with the rapid expansion of the use of social media tools such as Faceebook (founded in 2004), Twitter (founded in 2006) and Instagram (founded in 2010), and the growth in the literature on social media tools manifests itself in many different and diverse topics. According to Web of Science, articles rank first in terms of document type in social media tools research, and there has been a steady increase since 2013 in parallel with the widespread use of social media tools worldwide. In addition, computer sciences ranks first, educational research ranks second and business administration ranks third in terms of the most research areas related to social media tools. Again, among the countries with the highest number of publications on social media tools, the USA ranked first, the UK ranked second and Spain ranked third. According to the number of publications on social media tools by authors and the number of citations, Papadopoulos and Symeon ranked first with 14 studies and 1167 citations, Popescu and Elvira ranked second with 13 studies and 593 citations, and Manca, Stefenia ranked third with 10 studies and 459 citations. The institutions with the highest number of publications on social media tools worldwide are Michigan, Melbourne and Stanford universities, respectively. The words social media, Twitter, Facebook, Covid 19, and social networks were the most frequently used concepts related to the expression social media tools. In addition, it was revealed that there are 219 keywords that reveal the panoramic structure of 12397 different key concepts of 26283 researches on the subject of social media tools, and according to the key concept association analysis, the concepts of social media, Covid 19, education, communication and internet are concentrated.

The research is in line with Chaudhari & Pawar (2021), whose bibliometric analysis findings show that propaganda activities carried out through social media tools are mostly studied in the field of social sciences and computer sciences. It is also in line with Ali et al. (2023)'s research finding that the use of social media tools has seen growth in the literature on the subject in various subject areas such as business, management and accounting, environmental science, decision science, engineering, arts and humanities. The data used in this survey, which determines the general situation regarding the current state of research on social media tools, is limited to publications from the WoS database. For future studies, it is recommended that databases such as SCOPUS, IEEE Xplore, EBSCO, Emerald, Science Direct, Taylor and Francis, Springer, SSRN, etc. should also be utilized considering data quality and accessibility. In the future, researchers can perform a similar bibliometric analysis on social media tools in the Turkish literature.

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