

Article

# Framing in media and communication studies: A bibliometric analysis

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**Abstract:** This paper presents a comprehensive bibliometric analysis of framing and frame theory in media and communication studies, utilizing Web of Science (WOS) data from 2014 to 2023. Framing, as a critical concept in media discourse, shapes public perception by highlighting specific aspects of information while downplaying others. Despite its central role in political communication, news framing, and social media research, there is a notable gap in better incorporating linguistic perspectives, particularly metaphor framing, within the existing literature. Using VOSviewer, this study analyzes co-occurrence networks and thematic clusters to map the evolving landscape of framing research. The results reveal key areas of focus, including political communication, science communication, and identity politics on social media platforms, while also highlighting the underrepresentation of linguistic approaches. This analysis not only identifies influential authors and institutions but also underscores the need for further integrating cognitive linguistic theories, such as metaphor framing, to deepen our understanding of how media discourse constructs reality. The paper concludes by suggesting directions for future research, calling for more interdisciplinary studies to explore the complex mechanisms underlying media framing.

**Keywords:** framing; frame; bibliometric analysis; communication studies; media studies; metaphor framing

## 1. Introduction

Framing is a fundamental concept in media and communication studies. It significantly influences how information is presented, interpreted, and understood by audiences. At its core, framing involves the selective presentation of information to highlight specific aspects while downplaying others, thereby shaping audience perceptions and interpretations [1]. This concept has been widely recognized as a crucial mechanism through which media and communicators construct social realities, making it a central focus for researchers examining the interplay between media, culture, and society [2–6].

The significance of framing extends beyond mere theoretical discussion; it has profound implications for public discourse, policy formulation, and social movements. For instance, studies have demonstrated that the framing of issues such as immigration, healthcare, and climate change can substantially influence public opinion and political behavior [7–10]. As a result, understanding the nuances of framing and its impact has become increasingly vital for scholars across multiple disciplines, including political communication, media studies, and sociology.

In recent years, the body of research examining framing has expanded considerably, prompting a need for systematic examination of the scholarly landscape. Bibliometric analysis—a quantitative approach that analyzes bibliographic records to reveal patterns in research output—provides a valuable lens through which to explore the development of framing studies. Prior bibliometric investigations have illuminated

various aspects of communication research, identifying trends, influential authors, and the evolution of theoretical frameworks [11,12]. Such studies have not only highlighted the interdisciplinary nature of framing research but have also underscored the methodological advancements that have emerged in the field.

This paper aims to conduct a comprehensive bibliometric analysis of the literature related to “frame” and “framing” as indexed in the Web of Science (WOS). By systematically collecting and analyzing relevant publications, this study seeks to address several key questions: What are the prevailing trends in framing research over time? Which authors and institutions have made significant contributions to the field? What thematic areas are emerging, and how do they reflect the broader socio-political context?

Through this analysis, I will identify influential works and collaborative networks among scholars, providing a nuanced understanding of the current state of research on framing. The findings of this study will not only contribute to the existing literature but will also serve as a valuable resource for researchers, practitioners, and educators interested in the dynamics of framing in communication. Ultimately, this bibliometric analysis aims to map the evolving landscape of framing research, offering insights into both established and emerging themes that merit further exploration.

## **2. Framing and frame**

The concepts of “framing” and “frame” have undergone significant ontogenetic development since their introduction into discourse and communication studies. The evolution of these terms is marked by a series of theoretical advancements and empirical explorations that have shaped their contemporary interpretations.

The foundational work on frames can be traced back to Erving Goffman’s *Frame Analysis: An Essay on the Organization of Experience* [13]. Goffman introduced the notion of frames as cognitive structures that guide individuals’ understanding of social experiences. He posited that frames serve to highlight particular aspects of reality while obscuring others, thereby facilitating meaning-making processes. This framing mechanism allows individuals to navigate complex social phenomena by providing a coherent interpretive lens.

The term “framing” began to gain traction within media studies in the late 20th century, as scholars sought to understand how media representations influence public perception. Robert Entman’s influential article, “Framing: Toward Clarification of a Fractured Paradigm” [14], crystallized the definition of framing as the selection and salience of specific elements within a given context. Entman argued that framing not only shapes the issues that audiences think about but also influences the interpretive frameworks through which they engage with these issues. This dual role of framing in agenda-setting and public interpretation has since become a central theme in communication research.

Further expanding on this foundational understanding, Gamson [7] conducted a seminal study on the framing of nuclear power in media discourse, revealing how media frames can shape public opinion on contentious social issues. Their analysis demonstrated that frames are not merely reflections of reality but active constructs that influence societal narratives and public attitudes.

As the field has matured, scholars have developed diverse theoretical frameworks to explore the intricacies of framing. Nelson, Clawson, and Oxley [8] illustrated the impact of media framing on civil liberties, emphasizing how the framing of issues can foster tolerance or intolerance within public discourse. Their work underscored the critical relationship between media frames and public opinion, thereby paving the way for further empirical investigations into the effects of framing across various contexts.

The interdisciplinary nature of framing research has led to fruitful interactions with other concepts, such as agenda-setting and priming. This interplay has yielded a richer understanding of the mechanisms by which frames operate within broader communicative contexts. For example, McCombs [15] emphasizes how media agenda-setting influences public perception by determining which issues are considered important. Iyengar and Kinder [16] further illustrate that the way news is framed can prime specific considerations in audience decision-making, ultimately affecting how issues are perceived and discussed in public spheres. Additionally, Scheufele [17] revisits these cognitive effects, highlighting the interconnectedness of agenda-setting, priming, and framing in shaping political communication.

The advent of digital media and social networking platforms has catalyzed a new phase in framing research. Scholars have begun to investigate how digital environments facilitate the rapid dissemination and evolution of frames. The ability of social media to amplify particular frames while suppressing others has raised critical questions about the implications for democratic discourse and public understanding. Studies have demonstrated that users on platforms like Twitter and Facebook actively construct and share frames around political events and social movements, illustrating the dynamic nature of framing in contemporary communication [18,19].

Additionally, research has highlighted the role of framing in the spread of misinformation and polarization within digital contexts. The mechanisms through which frames operate in online discourse have become a focal point for understanding the complexities of modern communication dynamics and their impact on public opinion.

Today, framing remains a vibrant area of inquiry, with scholars exploring its theoretical implications and practical applications across diverse domains. Emerging themes include the examination of framing's role in identity construction, the ethical considerations surrounding the use of frames in communication, and the impact of framing on marginalized voices in media representations [20]. As framing research continues to evolve, it is imperative to consider how historical developments have shaped current scholarship.

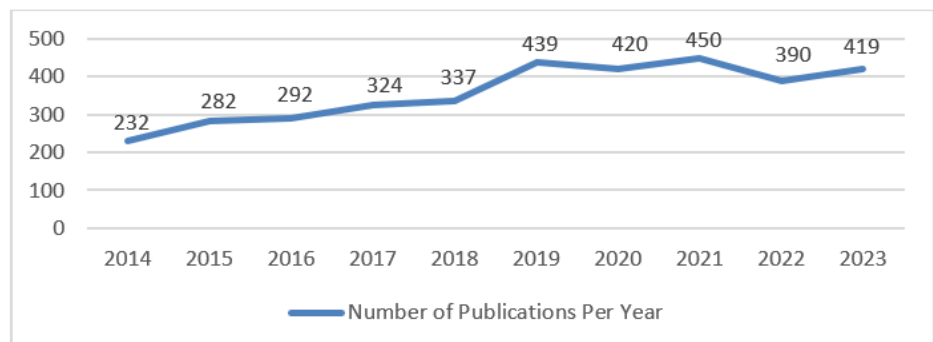
### **3. Method and data**

A bibliometric analysis was conducted to delineate the recent developments in framing studies. The primary analytical tool employed in this study is VOSviewer, which is used to construct and visualize bibliometric networks, including networks of journals, researchers, or individual publications. These networks are built based on various relationships, such as citation, bibliographic coupling, co-citation, or co-authorship. One key feature of VOSviewer is its automatic cluster analysis—an unsupervised classification method that groups data into clusters based on interclass

similarity. This technique provides a useful starting point for subsequent qualitative interpretation, facilitating the interaction between quantitative and qualitative approaches. Close reading of the literature can address the limitations of the structured, closed-ended analyses produced by bibliometric software. As Everitt et al. [21] note, automatic classification schemes offer a “convenient method for organizing large datasets to enhance understanding and efficiency in information retrieval”. However, as with many multivariate statistical methods, cluster analysis can be unnecessary or redundant when applied to smaller datasets. Therefore, bibliometric analysis requires a substantial body of research for meaningful insights. For this study, data were retrieved from the Web of Science (WoS) Core Collection (SSCI and A&HCI), focusing on publications from 2014 to 2023. The search terms used were “framing” OR “frame,” limited to English-language research articles, and excluding book reviews, editorials, conference reports, errata, and letters to the editor. After manually uploading the meta-data into VOSviewer, I generated and interpreted keyword lists and cluster graphs. The analysis focused on the number of publications per year, co-authorship networks, institutional and country collaborations, co-occurring keywords, document co-citation networks, and author and journal co-citation networks.

#### 4. Results and discussion

From 2014 to 2023, there are in total 3585 publications in relation to “frame” or “framing”. This size of dataset is sufficient for bibliometric analysis compared to other studies that have adopted a bibliometric approach [22–24]. According to WoS categories, the articles are mainly published in these fields: communication (1,775), social psychology (247), climate change (229), language & linguistics (210), political science (127), and management (117). **Figure 1** offers a general overview of number of publications per year. Generally, the figure shows an upward trend. From 2014 to 2019, there is an initial upward trend, with a peak in 2019 at 439 publications. Following the peak, there is a slight decline, reaching a low of 420 in 2020. There is also a noticeable decline in 2022, with 390 publications. Nevertheless, 2019–2023 show a fluctuation around 400 publications, suggesting a period of consolidation within the field.



**Figure 1.** Number of publications per year.

#### 4.1. Collaboration network analysis

**Figure 1** presents an author network visualization, which graphically represents the co-authorship relationships among a group of researchers. Each node in the network represents an individual author, and the links between nodes indicate co-authorship relationships. The size of each node is proportional to the number of publications the author has contributed to, providing a visual indication of the author's productivity within the network. The network is composed of various clusters, which are groups of authors who frequently collaborate with each other. These clusters can be seen as communities of researchers working in related fields or on similar topics. The color coding of the nodes can represent different research groups, institutions, or even thematic areas, depending on the criteria used to generate the network. Key authors in the network include Guenther, Lars; Mast, Jelle; Rowling, Charles M.; Kilgo, Danielle K.; and Hample, Dale, among others. These authors appear as larger nodes, suggesting that they have a significant number of publications and are central figures in the research community depicted.

The network also highlights several authors who bridge different clusters, such as Cover, Rob; Bowe, Brian J.; and Cassilo, David. These authors play a crucial role in interdisciplinary research, connecting different research communities. The network also includes authors with non-English names, such as Chen, Sibio; Jin, Yan; and Kim, Jarim, which suggests a diverse and international group of researchers.

Further, **Table 1** reveals the top 10 influential authors. Kilgo, Danielle K., and Harlow, Summer both lead the ranking with 11 publications each. However, Kilgo's work has garnered more citations (324) compared to Harlow (236), indicating a higher impact in the field. Boomgaarden, Hajo, stands out with the highest total link strength (457), suggesting that his work is not only frequently cited but also influential in shaping the discourse within the field. Despite having fewer publications (11), his work seems to have a significant reach. Vilegenthart, Rens, has the highest number of publications (21), which might indicate a prolific authorship. However, the citation count (483) and total link strength (8) are not as high as expected for such a volume of work, suggesting that while his work is recognized, it may not be as influential as others. Baden, Christian, and D'haenens, Leen, both have 10 publications with similar citation counts (396 and 113, respectively). However, Baden's lower total link strength (11) compared to D'haenens (11) might suggest that while both are equally prolific, D'haenens' work has a slightly broader impact. Nan, Xiaoli, with 11 publications and the lowest total link strength (2), might be an emerging scholar whose work is yet to gain significant traction in the field.

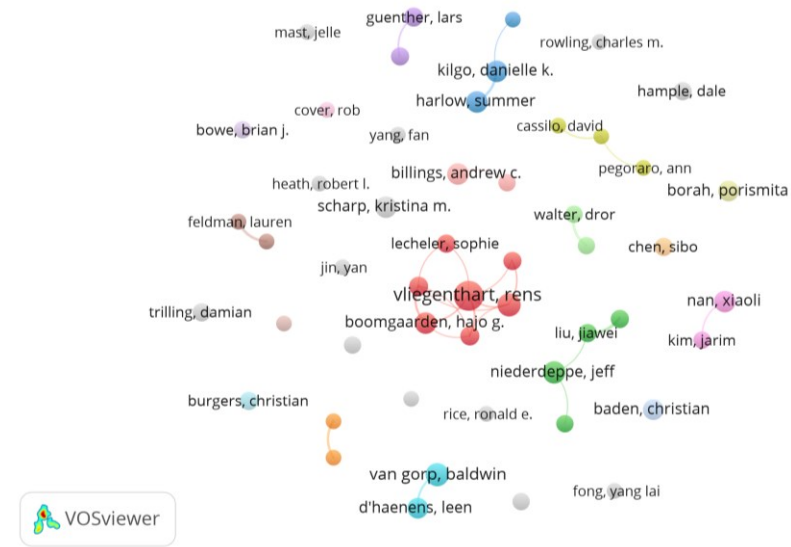
**Table 1.** Most influential authors.

Rank	Author	Publications	Citations	Total link strength
1	Kilgo, Danielle K.	11	324	40
2	Harlow, Summer	11	236	39
3	Boomgaarden, Hajo	11	457	14
4	Baden, Christian	10	396	11
5	D'haenens, Leen	10	113	11
6	Van Gorp, Baldwin	13	161	10

**Table 1.** (Continued).

Rank	Author	Publications	Citations	Total link strength
7	Borah, Porismita	10	218	8
8	Vilegenthart, Rens	21	483	8
9	Hameleers, Michael	13	309	3
10	Nan, Xiaoli	11	282	2

**Figure 2** presents a list of countries, each representing a node in a global network of research impact. The presence of these countries suggests a global distribution of research efforts and contributions. It highlights the diversity of research landscapes and the international nature of scientific collaboration. Countries such as the USA, Germany, and England are traditionally known for their strong research output and are often at the forefront of scientific discovery and innovation. Nations like South Korea, China, and Singapore are rapidly emerging as significant contributors to the global research community, with investments in research and development leading to notable advancements. It also includes countries from various regions, indicating a widespread engagement in research activities across different continents.



**Figure 2.** Co-authorship network.

Moreover, **Figures 3** and **4** provide a visual representation of a network comprising various research institutions from different countries. Each node in the network represents an institution, and the links between nodes signify collaborative research efforts or co-authorship relationships among these institutions. Notably, University of Amsterdam has the highest output. Some institutions have very close collaboration. For instance, University of Amsterdam usually collaborates with University of Vienna, Vrije University Amsterdam, Erasmus University, Hebrew University of Jerusalem, and University of Washington.

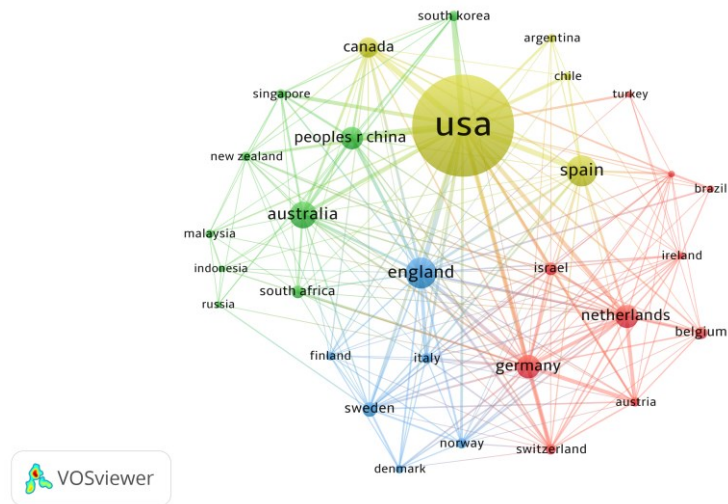


Figure 3. Country collaboration network.

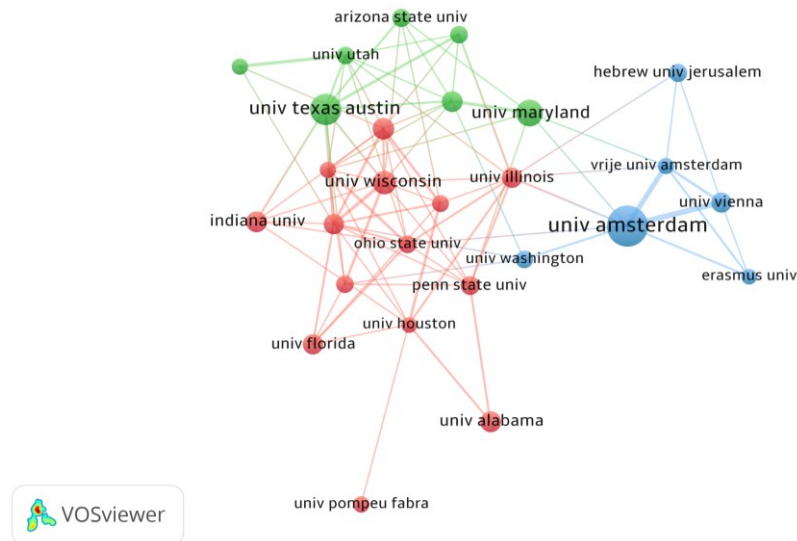


Figure 4. Institution collaboration network.

#### 4.2. Keywords analysis and trend topics

Figures 5 and 6 offer a comprehensive view of the thematic landscape regarding frame studies within the field of communication and media studies. The first figure, a density visualization of keywords, presents a snapshot of the most prominent topics, while the second figure, an overlay visualization, provides a temporal map of the evolution and interconnection of these themes.

The density visualization (Figure 5) reveals the prevalence of certain keywords within the field. This visual representation helps to identify the central concepts that have been driving scholarly discourse. The prominence of terms like “framing”, “media”, “communication”, and “public relations” indicates their foundational role in the field. Meanwhile, the appearance of keywords such as “digital media”, “social media”, and “crisis communication” suggests a shift towards contemporary issues and platforms. In terms of methodology, (critical) discourse analysis and content analysis are frequently employed in this field. These trending topics, however, may lack a sufficient Chinese perspective. For instance, topics involving social media are mainly

about Facebook and Twitter, while frames in Chinese media platforms such as Red and Weibo are absent.

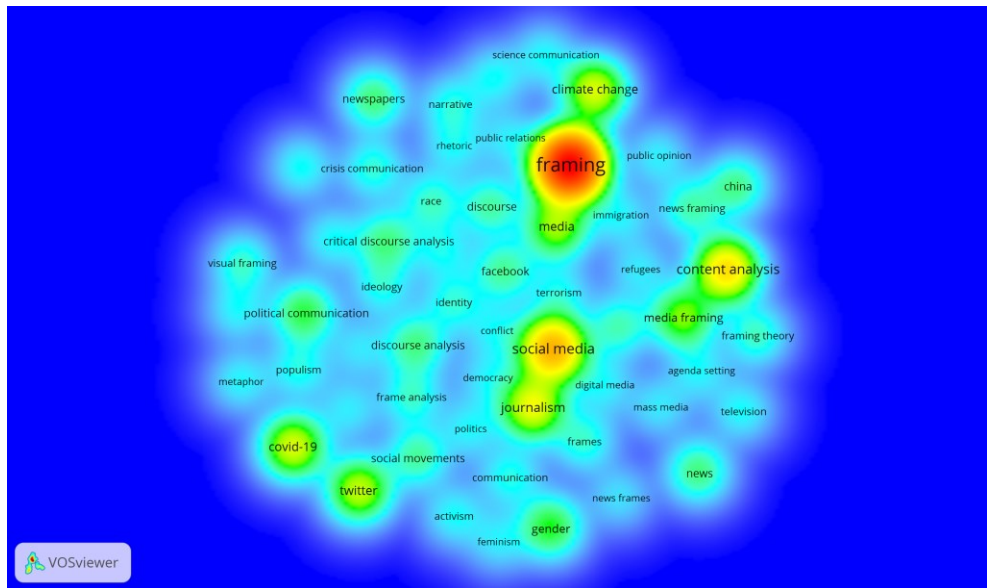


Figure 5. Density visualization of keyword co-occurrence network.

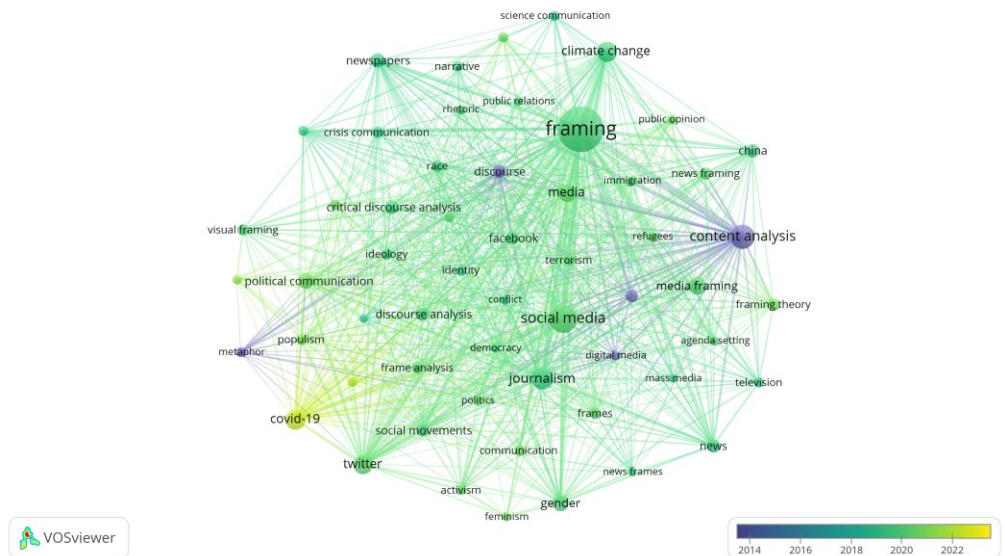


Figure 6. Overlay visualization of keyword co-occurrence network.

The overlay visualization (Figure 6) complements the keyword density by mapping the evolution of these themes over time. This figure highlights the emergence of new themes such as “COVID-19”, “populism”, and “climate change”, which have become significant areas of study in recent years. Moreover, visual framing has gaining more attention during these years, offering a multimodal perspective into frame studies. The temporal layering of these themes provides a historical context, showing how the field has adapted to societal changes and global events.

The interrelation of these two figures is particularly insightful. The density visualization identifies the most frequently discussed themes, while the overlay visualization traces the trajectory of these themes. For instance, the keyword “framing”

appears prominently in the density visualization, and its evolution can be tracked in the overlay, showing its application in various contexts such as “political communication”, “media framing”, and “crisis communication” over different years. Indeed, as **Table 2** further proves, the top 10 most-cited publications involve political and crisis issues and feminist topics, which marks a common concern in frame studies during the past ten years.

**Table 2.** Most cited publications.

Rank	Publications	Authors	Journals	Year	Citations
1	An Analysis of Data Quality: Professional Panels, Student Subject Pools, and Amazon’s Mechanical Turk	Kees, J; Berry, C; Burton, S; Sheehan, K	Jouanrl of Advertising	2017	645
2	The End of Framing as we Know it...and the Future of Media Effects	Cacciatore, MA; Scheufele, DA; lyengar, S	Mass Communication and Society	2016	393
3	The Dynamics of Public Attention: Agenda-Setting Theory Meets Big Data	Neuman, WR; Guggenheim, L; Jang, SM; Bae, SY	Journal of Communication	2014	338
4	“Aren’t These Just Young, Rich Women Doing Vain Things Online?”: Influencer Selfies as Subversive Frivolity	Abidin, C	Social Media + Society	2016	320
5	Quantitative Analysis of Large Amounts of Journalistic Texts Using Topic Modelling	Jacobi, C; van Atteveldt, W; Welbers, K	Digital Journalism	2016	305
6	Maximizing Opportunities and Minimizing Risks for Children Online: The Role of Digital Skills in Emerging Strategies of Parental Mediation	Livingstone, S; Olafsson, K; Helsper, EJ; Lupiáñez-Villanueva, F; Veltri, GA; Folkvord, F	Journal of Communication	2017	276
7	Media representations of Muslims and Islam from 2000 to 2015: A meta-analysis	Ahmed, S; Matthes, J	International Communication Gazette	2017	253
8	Rethinking Political Communication in a Time of Disrupted Public Spheres	Bennett, WL; Pfetsch, B	Journal of Communication	2018	242
9	Framing Climate Change: Exploring the Role of Emotion in Generating Advocacy Behavior	Nabi, RL; Gustafson, A; Jensen, R	Science Communication	2018	232
10	“Hope in a hashtag”: the discursive activism of #WhyIStayed	Clark, R	Feminist Media Studies	2016	213

Further, building on the analysis of top-ranked articles in **Table 2**, several key trends and areas of focus emerge within the communication and media studies landscape. First, methodological advancements in data collection and analysis have become critical, as evidenced by Kees et al. [25], whose work on the reliability of different subject pools (e.g., professional panels, student pools, Amazon Mechanical Turk) is a pivotal contribution. This focus on methodology reflects an ongoing concern within the field about the rigor and reliability of research designs, especially in the context of large-scale data collection, digital platforms, and online experiments.

Second, the evolution of framing theory and its relationship with media effects remains a focal point. Cacciatore et al. [26] challenge traditional views on framing, advocating for a reassessment of its role within media effects research, particularly in light of digital transformations. This signals a broader trend of re-evaluating foundational theories as they intersect with rapidly evolving media landscapes. Similarly, Neuman et al. [27] emphasize the convergence of agenda-setting theory and big data, spotlighting the intersection of traditional media theories and new

technologies. This article's significant citation count points to the increasing importance of computational methods and big data in understanding how public attention is shaped in the digital age.

Third, the growing influence of social media platforms and their impact on culture and identity politics is particularly prominent in articles such as Abidin [28] and Clark [29]. Abidin's work on social media influencers addresses the cultural significance of online personas and how they subvert traditional media power dynamics. Clark's exploration of hashtags, like #WhyIStayed, illustrates the power of digital activism and the role of social media in mobilizing public opinion. These studies reflect a broader interest in the ways that identity construction and activism are facilitated by digital platforms, which continue to shape discourse around gender, race, and social justice.

Another notable trend is the application of computational techniques in media research. Jacobi et al. [30] highlight the growing integration of topic modeling and other digital tools to analyze large datasets, marking a shift towards more data-intensive approaches in media studies. The incorporation of these techniques not only expands the scope of media analysis but also enables scholars to tackle new challenges in studying media at scale, including the proliferation of user-generated content and the increasing fragmentation of media landscapes.

Finally, the field shows a sustained interest in media representations of marginalized groups, as shown by Ahmed and Matthes [31] in their meta-analysis of portrayals of Muslims and Islam. This aligns with a broader movement in communication studies toward addressing issues of diversity, representation, and social justice, areas that have gained heightened importance in media discourse over the past decade. Similarly, works like Nabi et al. [32] and Livingstone et al. [33] illustrate the emotional and social dimensions of media effects, particularly in the context of climate change communication and parental mediation of children's online experiences. These studies point to a growing recognition of the importance of emotional appeals and the nuanced role media plays in shaping both individual and collective behavior in response to global challenges.

In summary, the top-ranked articles reflect a dynamic and evolving field. Communication and media studies are increasingly defined by methodological innovations, the reevaluation of traditional theories, and a growing emphasis on digital platforms, social justice, and computational techniques. These trends suggest that future research will likely continue to explore the intersections of media, technology, and society, while also addressing emerging global challenges through interdisciplinary and innovative approaches.

Additionally, news media has been a major field in frame studies primarily because news coverages are loaded with framing maneuvers. In **Figure 7**, there are key topics in relation to news media. The green cluster revolves around "communication", "news media", and "public opinion", with prominent terms such as "climate change", "attitudes", and "health". This suggests that a substantial body of work focuses on how media frames influence public perception and behavior, especially in the context of science communication. Studies have frequently investigated how framing shapes public attitudes toward health crises (e.g., COVID-19) and environmental issues (e.g., climate change) [34,35]. Given the central role of



The blue cluster, which includes keywords like “social media”, “twitter”, “gender”, “race”, and “discourse”, suggests a focus on how digital platforms are transforming framing practices, particularly around identity-related issues. With the rise of social media platforms, researchers have started to explore how online discourse frames gender, race, and other identity politics issues, with a particular focus on movements like #MeToo and Black Lives Matter [40,41]. The cluster indicates that Twitter, among other platforms, plays a significant role in shaping public discourse, allowing marginalized voices to challenge mainstream frames. Future research should delve into the role of algorithms in framing online discourse, as social media platforms often reinforce specific frames through algorithmic curation, thereby influencing public opinion [42]. Comparative studies between traditional and social media framing of identity issues would also provide a broader understanding of how different media environments contribute to or challenge dominant societal narratives. Furthermore, investigating the global nature of social media platforms and their role in transcending national frames could be a promising research avenue [43].

The bibliometric map underscores several research gaps and opportunities. First, while there is extensive literature on media framing in politics and science, there is a growing need to understand how frames evolve across time and platforms. Longitudinal studies that track frame shifts, particularly during prolonged crises such as the COVID-19 pandemic or ongoing climate debates, could offer new insights into the durability and transformation of frames [44]. Second, cross-platform studies that compare framing between traditional media (television, newspapers) and social media could further our understanding of how digitalization is reshaping framing practices. As social media increasingly becomes a primary source of news for many people, studying the interplay between user-generated content and traditional news frames becomes crucial [45]. Third, more attention should be given to framing in non-Western contexts, as most framing research has focused on Western media systems. Understanding how framing operates in different cultural and political environments can significantly contribute to the global discourse on media framing [46].

## **5. Concluding remarks**

This article has revealed critical insights into the research trends on framing and frame theory within media and communication studies. The results demonstrate a substantial body of work dedicated to these concepts, particularly in areas like political communication, news framing, and social media studies.

Apart from the findings and dearth spotted in the analysis, another notable gap across these fields is the underrepresentation of linguistic perspectives, specifically metaphor framing, which, according to our data, has not been sufficiently valued in media and communication research. While conceptual framing has been a widely explored theme, studies that address how linguistic elements—such as metaphors—shape discourse remain comparatively scarce. Metaphor framing, a fundamental component in cognitive linguistics, plays a vital role in how individuals conceptualize abstract phenomena [47]. Despite its relevance, media and communication studies tend to overlook how metaphors construct meaning, influence audience perception, and even contribute to bias in public discourse.

Scholars such as Charteris-Black [48] and Musolff [49] have argued that metaphor use in political and media language is pervasive, yet it remains a peripheral topic within bibliometric studies on framing. The majority of studies on metaphor framing has not received enough attention. Recent scholarship in this strand has explored how metaphor framing influences public discourse and shapes perception of complex issues [50–52]. These studies, predominantly employing discourse analytical approaches [53,54], reveal that metaphor frames function by highlighting specific aspects of a target conceptual domain while backgrounding others [55].

Specifically in political communication, metaphor framing serves a dual function: it renders abstract concepts more accessible while strategically guiding citizens' conceptualization and reasoning about political matters [56]. The impact of such framing is particularly evident in immigration discourse, where Gonçalves [57] demonstrates that the framing of dehumanizing metaphors contributes to hate speech, crimes, and restrictive public policies toward immigrants. Additionally, meta-analytical evidence further supports the efficacy of metaphorical framing, showing that both metaphorical-words and metaphorical-concepts frames positively influence beliefs and attitudes in public rhetoric, with metaphorical-concepts frames demonstrating stronger effects [58].

Despite the growing body of literature on metaphor framing, some issues at the interface of metaphor studies and media studies remain. For instance, it is still unclear how metaphorical framing interacts with diverse media formats and platforms especially in the algorithm-driven digital landscape. To foster such in-depth cross-pollination of linguistics and media studies, more scholars should opt for frameworks that better lump cognitive linguistic approaches, especially the study of metaphors and media frame studies, despite the current number of studies on metaphor framing. Such integration could offer more nuanced understandings of how media shapes public opinion through language and other relevant elements.

In addition, there are also other suggestions for frame studies in media and communication research. It is significant for future studies to compare social media framing with traditional media as this type of research may highlight unique differences or similarities that are crucial for understanding contemporary communication dynamics. Moreover, more non-Western examples can be included because it will broaden the global scope of the research, showcasing the diversity in framing styles across cultures. Additionally, longitudinal studies to track framing over time—especially during significant events or crises—could add a valuable temporal dimension to the analysis. Lastly, examining how algorithms on platforms like Twitter and Facebook shape which frames are amplified or suppressed would bring even more depth to future studies.

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