

Information Research - Vol. 30 No. 3 (2025)

Assessing think tank influence in the context of social media: A systematic literature review

Chenlin Wang and Jing Shen

DOI: https://doi.org/10.47989/ir30357869

Abstract

Introduction. Social media has changed the global political landscape and modes of national social governance. Think tanks are expected to capitalise on the opportunity to amplify their influence on policymakers and the public through social media platforms. This study aims to explore how to assess think tanks' influence in social media and to identify the focuses, key framework, measures, and metrics employed in existing research.

Method. This paper presents a systematic literature review on the evaluation of think tank influence in the context of social media, following the PRISMA guidelines.

Analysis. Characteristics, research topics and evaluation processes are explored through content analysis, statistical analysis, and citation analysis of thirty-two screened articles.

Results. The field of think tank influence evaluation has evolved from policy influence assessment to Website, online, and social media influence evaluation, utilizing various indicators and methods. However, a comprehensive and systematic evaluation system is still lacking. Based on the limitations of current studies, we propose three future directions: evaluating the national think tank ecosystem; constructing an influence indicator system using Altmetrics and user-generated content (UGC); and incorporating AI technology in influence evaluation.

Conclusion. These findings offer new avenues for enhancing the measurement of think tank influence in a digitally connected world.

Introduction

Think tanks, referred to as 'media intellectuals' by Misztal (2012), play a crucial role in the online public sphere by disseminating policy knowledge, expressing opinions, and guiding public sentiment. The emergence of Web 2.0 has led to a gradual shift in the channels through which information is disseminated, moving from traditional media to social media platforms. This shift has accelerated the pace at which societal actors can exchange information and interact, which has led to transformations in the traditional political landscape (Zhu & Zhao, 2021). The online public sphere has increasingly become the primary venue for civic participation in political affairs. In this context, social media has emerged as a pivotal platform through which think tanks can shape public opinion and propagate ideological viewpoints (Pineda et al., 2019). Well-known think tanks have systematically embraced social media, facilitating a more effective dissemination of think tank influence through these channels.

The influence of think tanks not only reflects their inherent value and importance but also serves as a manifestation of their core competitiveness, so this is a focal point in think tank research (Pei et al., 2019). Existing research has extensively and comprehensively explored think tank influence by investigating various aspects, such as the mechanisms and modes of think tank involvement in specific domains, as well as by considering think tank types and geographic regions. Think tank influence has been evaluated and ranked via quantitative methods and a variety of tools. Various areas, such as policy, academic, social, international, public opinion, and network influence, are encompassed within the scope of research on think tank influence. Identifying the formation and dissemination mechanisms of think tank influence may contribute to the advancement of development and reforms, thereby supporting the growth and sustainability of think tanks. This holds great significance for upholding their reputation and enhancing their brand identity (Shen et al., 2020).

Think tanks make extensive use of social media to influence political opinion-making and agenda-setting processes (Stieglitz & Dang-Xuan, 2013), and to disseminate their influence. According to Ren (2020), social media generally involves three phases of development. The initial phase, known as the portal stage, occurred in the mid-1990s and involved platforms such as Yahoo and Google. These Websites were mostly one-way and offered limited opportunities for interaction. The second phase emerged in the late 1990s, with a shift toward services featuring user-based and user-created content, which was marked by the inception of pioneering social networking sites such as Sixdegrees.com. The latest phase, known as Web 2.0, began in the early 2000s and continues to the present, characterized by the rise of interactive social media platforms such as X (formerly Twitter), Facebook, WeChat, and Weibo.

Think tanks are key actors in shaping the policy analysis landscape and have to adjust to changes in the political environment, including the inevitable use of social media (Zhu & Zhao, 2021). To gain a comprehensive understanding of research advancements in evaluating think tank influence in the context of social media, the following research questions are posed:

RQ1: What are the characteristics of the studies in this field?

RQ2: What are the research topics in current studies, how do they evolve, and what are the citation relationships among them?

RQ3: How can the evaluation process be conducted?

This study addresses these questions by conducting a systematic review of the relevant literature to grasp the current status and forecast future directions, helping to form the theoretical system of think tank influence evaluation research in the context of social media and promoting the construction and development of think tanks through evaluation.

Data and methods

This study applied a systematic literature review method to comprehensively examine research on the assessment of think tank influence in the context of social media, following the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines. The aim of the PRISMA Statement is to help authors improve the reporting of systematic reviews and meta-analyses, which assists authors to completely report why their systematic review was done, what methods they used, and what they found (Moher et al., 2009; Page et al., 2020). PRISMA considers four elements of a study, including identification, screening, eligibility, and included studies. Recent research in the field of information science has used PRISMA guidelines to conduct systematic reviews (Ashiq et al., 2022; Rojas-Estrada et al., 2024).

In this study, the literature search was conducted via two major databases: the China National Knowledge Infrastructure (CNKI) for Chinese literature and the Web of Science (WOS) for English literature. The document type was restricted to journal articles, and the search period ranged from 1 January 1900 to 20 June 2024. To cover the research topic comprehensively, we initially reviewed all the literature related to the evaluation of think tank influence. Consequently, the search query for literature was formulated as follows: TS=('think tank' OR 'brain trust' OR 'brain bank' OR 'consultant team') AND TS=(influence OR impact OR effect OR visibility OR performance) AND TS=(evalua* OR assess* OR rank). We obtained 285 Chinese language articles and 338 English language articles.

The subsequent stage involved selecting literature. First, non-academic research papers such as journal prefaces, calls for papers, book reviews, and reprint reports were excluded from the study. Second, a hierarchical screening process of evaluating each paper based on its title, abstract, and full content was conducted. The inclusion criteria were closely aligned with the research questions, encompassing literature about the evaluation, ranking, factors, and indicators of think tank influence as viewed through the perspective of social media. Studies where think tanks were not the key focus were excluded. Additionally, to enhance the comprehensiveness of the search results, we tracked related papers through the references and citations of the screened full-text papers. After applying these criteria, a combined total of twenty-three Chinese articles and nine English articles were ultimately selected. These thirty-two articles are therefore the subjects for the research. The process of inclusion and exclusion is depicted in Figure 1.

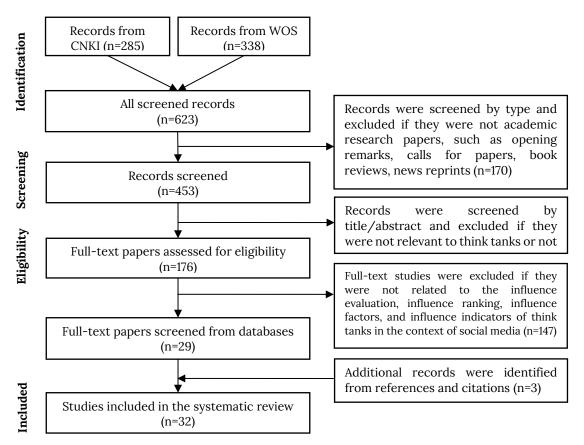


Figure 1. Flow diagram of the studies included in the systematic review

After the final sample was identified, the following elements of papers were extracted and coded from the included studies for subsequent analysis: (1) publication year of paper, (2) country/region of think tanks, (3) type of think tanks, (4) research topic, (5) number of think tanks selected, (6) report referenced for think tank selection, (7) evaluation indicators, (8) data sources and tools for evaluation, and (9) evaluation measures. Furthermore, citation analysis was conducted on the references of the included papers. The citation network within the included studies was constructed using Gephi, and core papers were identified according to the number of times they were cited in the network through statistical analysis.

Results

Characteristics of the studies

The fundamental descriptive statistics of the previous research were obtained. Figure 2(a) illustrates that some scholars began investigating the assessment of think tank influence in the media sphere as early as 1999. Chinese scholars have demonstrated a growing interest in the subject since 2014. This phenomenon is due mainly to policy promotion because China issued central-level policies in 2013 and 2015, and the number of papers peaked in 2016. The Chinese government planned the construction of numerous high-end think tanks and intended to increase their influence and international prominence by 2020; thus, the number of papers peaked again in 2021. In contrast, there are fewer English papers because the evaluation of think tank influence in the Occident focuses primarily on practical applications in this field, and fewer academic discussions have been conducted.

Figure 2(b) shows that Chinese studies focus on think tanks located in China, the United States, and other regions, whereas English studies focus on those located in the United Kingdom, the United States, Spain, Canada, and broader European and global regions. As indicated by Figure 2(c),

the types of think tanks in Chinese papers primarily include university, social, party, research institute, and media. In English papers, authors usually concentrate more on the research domains of think tanks, covering economics, foreign affairs, international development, and social policies.

Figure 2(d) shows that the Chinese papers mainly assess think tank influence in terms of Website influence, online influence, social media influence, online communication power, social network influence, comprehensive influence, Website construction, self-media influence, public opinion guidance, online media activity, and online activity. English papers place greater emphasis on policy influence, public influence and public visibility, model evaluation, and meta-evaluation. Comparatively speaking, Chinese studies focus on evaluating the online impact of think tanks themselves, whereas English studies focus more on the impact of think tanks upon policymakers and the public, as well as on evaluation methodologies.

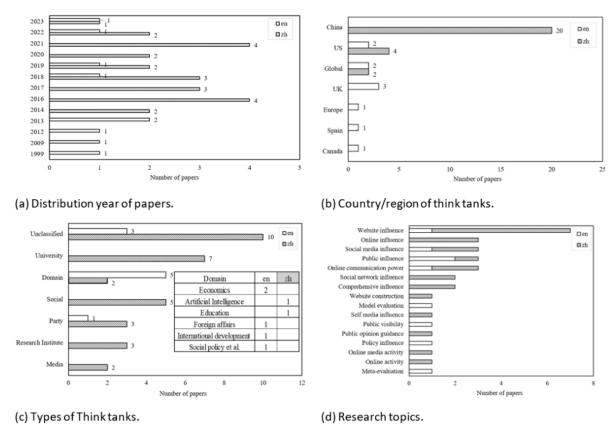


Figure 2. Basic characteristics of the included studies

Evolution of research topics

As depicted in Figure 3, the research topics originated from discussions on policy influence and focused on evaluating the translation of media data into policy influence. In 1999, Abelson assessed the policy influence of Canadian think tanks by public visibility and policy relevance at different stages of the policy-making process. Public visibility was quantified by considering media citations, CBC radio references, newspaper citations, and other indicators linked to traditional media platforms; policy relevance was measured by two indicators: consultation with government departments and testimony before parliamentary committees (Abelson, 1999). Subsequently, the most persistent topic is related to Website influence, with scholars intermittently researching this topic from 2009 to 2021. Website construction is also a pertinent subtopic in this domain. Online influence has been a hot topic since 2017, primarily drawing the attention of Chinese scholars, with related topics focusing on online media activity, online activity, and online communication power.

Social media influence has been a focal point from 2018 to the present, and associated topics encompass social network influence and self-media influence, which are currently active areas of research. In recent years, topics such as meta-evaluation and model evaluation have emerged. The meta-evaluation systematises the epistemic evaluation of social systems, and also leads us to general conclusions about the existing evaluations of think tanks, especially at the network and ecosystemic levels (Claveau & Veillette, 2022). A causal model is proposed to understand the thematic specialisation strategies of think tanks in the media sphere, and the model includes economic and media diffusion attributes (Roger-Monzo & Castello-Sirvent, 2023). These recent research topics indicate a growing focus on innovative evaluation methodology of think tank influence in the context of social media.

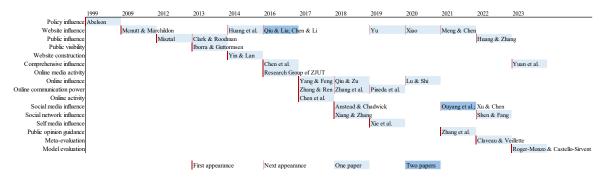


Figure 3. Evolution of research topics

We built a citation network based on the sample literature, as shown in Figure 4. Nodes represent sample literature, and their size indicates outdegree (i.e., citation frequency). Edges symbolise citation relationships between literature nodes, and the arrowheads indicate the flow of knowledge. Text colour denotes the topic category.

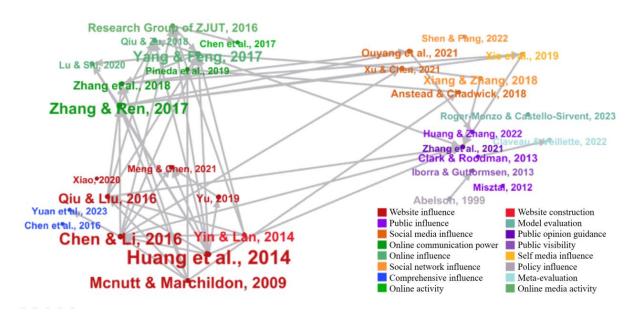


Figure 4. Citation network within the studies

According to the node sizes in Figure 4, two significant studies in the field are 'Comparative Study of Sino-US Think Tank Website Based on Link Analysis Method', which was published by the Chinese scholars Huang et al. in 2014 and received ten citations in the citation network, and Think

Tanks and the Web: Measuring Visibility and Influence', which was published by the American scholars McNutt and Marchildon in 2009 and received six citations.

There are close citation relationships among the studies on each topic, as well as among those on topics such as Website influence, online influence, and social media influence. This suggests a significant interconnection and cross-referencing of knowledge among different thematic areas in the field. The main flow of knowledge is from Website influence to online influence; from online influence to social media influence; and from Website influence to social media influence. This reflects the continuity of knowledge in the field, whereas the appearance of different topic categories in this process indicates innovation in the transmission of domain knowledge.

The most prolific author in this domain is Yuanyuan Chen (N=3), whose research has transitioned from evaluating think tank website influence (Chen & Li, 2016; Meng & Chen, 2021) to assessing think tanks' social media influence (Xu & Chen, 2021). Junping Qiu (N=2) shifted from think tank website influence evaluation (Qiu and Liu, 2016) to online influence evaluation (Qiu & Zu, 2018).

Evaluation process

Selection of think tanks and indicators

The existing research on assessing the influence of think tanks focuses on institutional entities and ranks think tanks by diverse indicators. The initial step of the evaluation process involves the selection of think tanks and evaluation indicators. As shown in Figure 5, the number of think tanks in most samples is small to moderate. Approximately 60% of papers opt for a small number of think tanks (N<30) in their research, and the average value is 38. Typically, three to ten indicators are utilised to assess think tank influence, with an average of seven and a median of six. Additional statistics on reports referenced for think tank selection, sources of indicators and their frequency have been compiled and are presented in Tables 1 and 2.

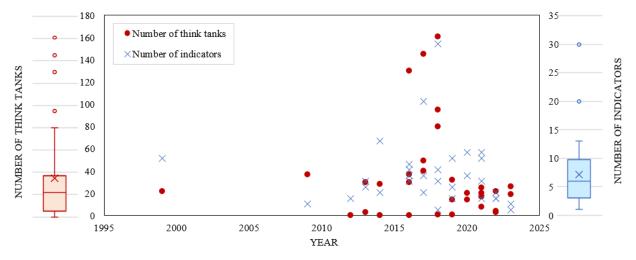


Figure 5. Number of think tanks selected and evaluation indicators

Table 1 clearly shows that the primary reference for think tank selection is the *Global Go To Think Tank Index Reports* (GGTTT) published by the McGann team at the University of Pennsylvania. This report emphasises the significant impact of social media and social networks as disruptive forces in driving global digitisation and political-eco-change (McGann, 2021). One of the evaluation criteria in the report involves the capacity of think tanks to engage with policymakers through online channels, such as social media tools. The report also assesses the utilisation of social media and the internet by global think tanks. Moreover, the *China Think Tank Report* published by the Centre for Think Tank Studies at Shanghai Academy of Social Sciences is utilised for the selection of Chinese think tanks. Additionally, the China Think Tank Index (CTTI) created by Nanjing

University and the Think Tank Big Data Report issued by Tsinghua University are also listed as references.

Report	Frequency	Percentage
Global Go To Think Tank Index Reports (GGTTT)	9	25.71%
China Think Tank Report	5	14.29%
China Think Tank Index (CTTI)	4	11.43%
Think Tank Big Data Report	2	5.71%
China Think Tank Survey Questionnaire	1	2.86%

Table 1. Reports referenced for think tank selection

Table 2 reveals that the sources of the top twenty-five indicators from sample literature can be categorised predominantly as Websites, social media, networks, or traditional media. The common indicators used for evaluating think tanks' Website influence include the number of Website links, Website backlinks, Website pages, Website internal links, Website size, and others. Website-related indicators also include the PageRank (PR) value from Google, the Baidu weight from Baidu, and the SogouRank (SR) value from Sogou, which are used to reflect the importance of Web pages. The indicators derived from social media platforms primarily encompass the number of followers, likes, comments, shares or reposts, posts, and fans. This type of indicator is also called the Altmetrics indicator (Xu & Chen, 2021). Moreover, the WeChat Communication Index (WCI) is commonly used to measure the social media performance of think tanks in Chinese studies. Additionally, the indicator of news citations is derived from news, newspapers, and television to measure the influence of think tanks on traditional media platforms. The network impact factor and similar indicators depict a think tank's performance within the online network.

Source	Indicator	Frequency	Source	Indicator	Frequency
	Website links	9		social media followers	9
	Website backlinks	8		social media likes	7
	Website pages	8		social media comments	3
	PR value (PageRank)	6	social	social media shares/retweets	3
	Website internal links	5	media	WCI	3
	Website size	5		blog posts	2
Website	Baidu weight	4		social media fans	2
	Website external links	4		network impact factor	4
	Website document links	3		external network impact factor	4
	SR value (Sogou rank)	3	networ k	internal network impact factor	4
	Website visits	2		core-edge structure	2
tradition	news citations 6			network academic impact	2
al media	news citations			network news exposure	2

Table 2. Sources of Top twenty-five indicators and their frequency

The selected indicators usually need to be assigned weights before empirical analysis is conducted so that the relative importance of each indicator is properly accounted for. Related weighting methods include the analytic hierarchy process (AHP) (Lu & Shi, 2020; Qiu & Zu, 2018; Yang & Feng, 2017; Yuan et al., 2023) or a combination of analytic hierarchy process and entropy weighting (Zhang & Ren, 2017). Additionally, the back propagation neural network algorithm is also utilised to determine index weights (Zhang et al., 2018). Compared with other methods, the back propagation neural network can effectively simulate complex relationships among numerous factors without

the need for manually assigning weights, thereby minimising the influence of subjective factors. Moreover, it can enhance the universality and rationality of evaluation models through self-learning and the adaptive adjustment of neuron weights.

Data and measures for evaluation

As illustrated in Table 3, the specific data sources for the indicators are think tank Websites and social media platforms, including Sina Weibo, X (formerly Twitter), and official WeChat accounts. Researchers typically use tools such as search engines and other data integration tools to gather data. Frequently used search engines include Baidu, Google, Alexa, and Google Scholar. Two other tools, CHINAZ.COM for Website data acquisition and gsdata.cn for social media data collection are also widely utilised within the Chinese academic community.

Data source/tool	Function	Frequency	
Baidu	search engine	10	
CHINAZ.COM	Website SEO query tool	9	
Google	search engine	5	
gsdata.cn	social media data monitoring tool	5	
Think tank website	Website	5	
Sina Weibo	social media platform	4	
X (formerly Twitter)	social media platform	4	
WeChat official account	social media platform	4	
Alexa	search engine	3	
Google Scholar	academic search engine	3	

Table 3. Top 10 data sources and tools

Based on the data sources and tools, methods for evaluating think tank influence in the context of social media can be divided into two categories according to the types of network information:

(1) Numerical data analysis methods

Scholars commonly employ various methods to analyse numerical network information during the evaluation process. Link analysis methods are typically used to statistically analyse link-related indicator data on think tank websites (Chen & Li, 2016; Huang et al., 2014; Meng & Chen, 2021; Xiao, 2020; Yu, 2019). Factor analysis (Xie et al., 2019) and principal component analysis (Anstead & Chadwick, 2018; Xu & Chen, 2021) are utilised to reduce the number of indicators that are gathered from online platforms. Statistical testing methods such as correlation analysis and grey relation analysis are used to reveal relationships between indicators extracted from online networks or relationships between Web-based metrics and existing ranks (Chen & Li, 2016; Chen et al., 2017; Clark & Roodman, 2013; Huang et al., 2014; Medina-Iborra & Guttormsen, 2013; Qiu & Liu, 2016; Xiao, 2020; Yu, 2019). Moreover, when assessing the social media influence of think tanks, social network analysis is employed to construct social networks of think tanks, focusing on the structural relationships among actors within the network for a deeper analysis of network node roles (Anstead & Chadwick, 2018; Shen & Fang, 2022; Xiang & Zhang, 2018). Comparative analysis is used to describe and explain the differences in the online influence of think tank cases (Claveau & Veillette, 2022; Meng & Chen, 2021; Misztal, 2012; Ouyang et al., 2021; Xu & Chen, 2021). Descriptive statistical analysis and fuzzy set qualitative comparative analysis (fsQCA) are adopted to measure the media representation of think tanks (Roger-Monzo & Castello-Sirvent, 2023).

(2) Textual data analysis methods

Current research employs text analysis methods to conduct in-depth semantic analysis of the information published by think tanks. For example, content analysis is utilised to explore the

characteristics of information dissemination, content production, and agenda setting of think tanks in the social media environment (Anstead & Chadwick, 2018; Pineda et al., 2019; Xiang & Zhang, 2018). Text mining based on the correlated topic model (CTM) is also employed to analyse the distribution of topics and the content production characteristics of think tanks on social media (Shen & Fang, 2022). Compared with content analysis, text mining offers advantages such as high computational efficiency, high accuracy, and the ability to obtain topic relevance. In addition, sentiment analysis based on natural language processing (NLP) algorithms is used to calculate the information issued by think tanks and related mentions on social media, measuring the sentiment tendencies of the public toward think tanks (Ouyang et al., 2021; Xu & Chen, 2021; Zhang et al., 2021).

Discussion

The emergence and prevalence of social media have led to substantial changes in global political ecology and national social governance modes. Think tanks have adapted by creating official accounts on social media platforms and actively propagating their views and knowledge products within the online public sphere shaped by social media, with the goal of influencing policy and public opinion. The propagating channels of influence have extended beyond conventional media and official websites to major social media platforms such as X (formerly Twitter), Facebook, Sina Weibo, and WeChat, as well as multimedia social platforms such as YouTube, Instagram, Toutiao, and Bilibili. Prominent think tanks have utilised these platforms to develop a new media matrix and strengthen their ability to identify public demands, disseminate their research outcomes, and participate in public dialogues (Zhang et al., 2021).

Regarding the studies assessing think tank influence in the context of social media, the research topics have progressed from policy influence evaluation to Website influence evaluation, then to online influence evaluation, and ultimately to social media influence evaluation. Throughout this progression, the role of think tanks in shaping public opinion has been consistently emphasised. In the evaluation process, the number of think tanks is typically small to moderate and authoritative reports are referenced to select think tanks. Search engines and other data integration tools are used to collect data for evaluating indicators from the Websites of think tanks, traditional media, online networks, and social media. The existing evaluation methods can be broadly classified into two categories, which are employed in conjunction with different indicators, data, and topics.

Limitations of current studies

Scholars have theoretically and practically explored this field and formed the basic evaluation process in the context of social media. However, current studies have yet to develop a comprehensive and rational system for evaluating think tank influence. Thus, the following issues need to be addressed.

First, the current research is mostly conducted on institutional entities, aiming to rank and showcase the 'best' think tanks (Claveau & Veillette, 2022). However, the perspective of an institutional entity is systemically deficient, as it overlooks the potential impact of the external environment on think tank influence.

Second, the sources of the indicators are limited. In particular, indicators of social media influence are focused primarily on popular social platforms, while the influence of think tanks on other online platforms is overlooked. Various types of social media, such as blogs, Wikipedia, and forums, are also important dissemination channels for think tank influence. Notably, the current indicators cannot comprehensively measure this type of influence.

Third, the value of indicators is unknown. The data used to assess think tank influence in the context of social media were obtained from the online activities of think tanks and the behavioural

trajectory of social media users. Overreliance on these kinds of data can lead to a lack of consideration of the authentic sentiments of policymakers or the public. Numerical indicators, such as the number of followers, signify only public attention and not public endorsement. Think tank influence on public opinion is most pronounced when there is widespread agreement among the public. According to this logic, these numerical metrics may not consistently provide valuable insights, and the value of indicators also varies due to the inherent uncertainties in the underlying motivations of user behaviours on social media. The value of indicators impacts data quality, which in turn affects the accuracy of evaluation results. Previous studies have yet to address this issue, and current indicators may not accurately measure think tank influence.

Finally, the current mainstream research methods predominantly involve quantitative or qualitative data analysis based on a small or moderate number of think tanks. However, as vast and multimodal data emerge on social media, employing these methods for further evaluation research in this context inevitably faces challenges, such as a high workload and low computational efficiency.

Directions of future research

According to the detailed review and the discussion of limitations of existing studies, we have identified three future research directions.

Regarding research topics, future studies could assess the influence of the national think tank ecosystem at the macro level. Current research on think tank influence assessment focuses primarily on individual think tanks at the micro level, which overlooks the role of various stakeholders in the policy-making process, leading to an incomplete and inaccurate assessment of think tank influence. The national think tank ecosystem provides important support and assurance for national policy governance (Chan et al., 2022). In this ecosystem, think tanks interact with government departments, the public, and other stakeholders to form a complex with self-adaptive, self-regulating, and self-organising functions (Li et al., 2023). By evaluating the national think tank ecosystem, we can understand the influence and functions of think tanks in the national policy-making process, thus better reflecting a country's policy governance level. Furthermore, comparative evaluations and rankings among countries can reveal the development level of think tanks among various countries. Therefore, evaluating the influence of the national think tank ecosystem at the macro level helps countries establish high-quality think tanks and enhance their soft power.

Future studies could combine numerical indicators and textual data indicators to construct the think tanks' influence evaluation indicator system. Altmetrics is a type of informetrics based on social media that integrates data from multiple online platforms (Priem et al., 2010) and helps expand the range of evaluation indicators for assessing think tank influence. The indicators of altmetrics can reflect public attention and can be used to assess think tanks' social media influence. Xu and Chen (2021) conducted a comparative analysis of the influence of think tanks in China and the United States based on altmetrics. However, the data of certain altmetrics indicators may not fully represent their actual value due to the multifaceted motivations behind social media user behaviour (Liu & Wang, 2020). The massive amount of textual content on social media, such as comments and posts, is referred to as user-generated content (UGC) data, which objectively reflect users' genuine attitudes and feedback toward think tanks and their knowledge products. Text mining and sentiment analysis of textual data may help determine the value of indicators, supplementing the shortcomings of numerical indicators. Therefore, the system based on altmetrics and user-generated content can more accurately reflect the real influence of think tanks in the context of social media.

In terms of evaluation methods, future research could combine AI technologies to assess think tank influence, improving the efficiency of the evaluation process and the accuracy of the results.

The main research methods of the existing literature are more suitable for small- to medium-sized datasets but are inadequate for evaluating think tank influence on large-scale social media data. Since the data available on social media platforms are vast and diverse, the evaluation process becomes more complex and fussier. AI techniques such as neural networks (Zhang et al., 2018) and text mining (Shen & Fang, 2022) have been employed in research on assessing think tank influence. The Academic Influence Group (James, 2023) utilises machine learning technology to identify think tank entities and institutions, finds mentions of think tanks across the Web, maps the people who make up a think tank, including independent work done by those people and their affiliations with other think tanks, and maps the think tank output by identifying ideas as entities for further tracking. As this mapping develops and signals strengthen between these think tanks, they collect essential data for comparing the influence of think tanks. For added corroboration and results assurance, they employ Web traffic analysis from third parties to track the organic search traffic leading to the think tanks' domains, each domain's keyword footprint, the number of referring domains, and the authority of those referring domains. The combination of Web data aggregation, AI-driven data analysis, and independent Web search monitoring yields an accurate, reliable measure of think tanks' global influence in the context of social media.

Conclusion

This systematic review investigates the current body of research on the assessment of think tank influence in the context of social media. An extensive literature search was conducted across major Chinese and English databases to identify relevant studies. Through the utilisation of content analysis and citation analysis, this review delineates the fundamental characteristics, evolution of research topics, and evaluation process observed in the existing research based on 32 selected papers. Notably, an overall comprehensive and rational evaluation system has not yet been established. Future research directions in this field include the influence evaluation of national think tank ecosystems, the construction of a think tank influence indicator system based on Altmetrics and UGC, and the evaluation process of think tank influence combined with AI technology.

Implications of this review

For theoretical implications, this review provides three directions for future research in the field by thoroughly examining the literature to identify the untapped areas and limitations of previous studies. It helps to form a holistic and systematic understanding of think tank influence evaluation research in the context of social media, thereby enriching the theoretical system of think tank studies. In the field of information science, this systematic review offers both theoretical support and methodological guidance for the evaluation of the influence of knowledge service institutions. Moreover, it advances the interdisciplinary integration and methodological innovation of informetric approaches within the evolving landscape of social media.

For practical implications, this paper provides reasonable evaluation indicators, applicable evaluation tools, and advanced evaluation methods for think tank managers and evaluation institutions to evaluate think tanks in the context of social media to promote the high-quality development of think tanks and national think tank ecosystem. Consequently, this paper provides a more focused and useful reference for the influence promotion of think tanks in the context of social media. Against the backdrop of social media, think tanks are becoming prominent voices in public discourse and serve as crucial intermediaries between knowledge and policy. This study sheds light on the underlying mechanisms and tangible impacts of think tanks in the policy-making process, thereby supporting the advancement of national governance capacity and improving the effectiveness of social governance.

Limitations of this review

This study has two limitations. First, we included only articles published in peer-reviewed journals, which may result in the omission of pertinent material, restrictions on the breadth of the research, slow content updates, and the small number of identified studies that match the selection criteria. Future research may consider more types of literature, such as meeting papers, books, and related reports. Second, we relied solely on two specific databases, analysing articles written only in English and Chinese. The imbalance in the quantity of literature between these two languages reflects the difference in attention given to the topic by different countries. Studies from other English databases and published in other languages will be included in the future to provide a more global overview of this field.

About the authors

Chenlin Wang is a Ph.D. candidate majored in Information Science in the Department of Information Management, Peking University, Beijing, China. She received the B.S. degree and the M.S. degree from Beijing Normal University, China. Her research interests include informetrics, think tanks and social media. She can be contacted at wangel@stu.pku.edu.cn.

Jing Shen is a professor currently working in the Department of Information Management, Peking University, Beijing, China. She received her Ph.D. from Peking University, China. Her research interests include information analysis, think tanks, innovation of knowledge service and management consulting. She can be contacted at jshen@pku.edu.cn. She is the corresponding author of this paper.

References

- Abelson, D. E. (1999). Public visibility and policy relevance: Assessing the impact and influence of Canadian policy institutes. *Canadian Public Administration*, 42(2), 240–270. https://doi.org/10.1111/j.1754-7121.1999.tb01069.x
- Anstead, N., & Chadwick, A. (2018). A primary definer online: The construction and propagation of a think tank's authority on social media. *Media Culture and Society*, 40(2), 246-266. https://doi.org/10.1177/0163443717707341
- Ashiq, M., Jabeen, F., & Mahmood, K. (2022). Transformation of libraries during Covid-19 pandemic: A systematic review. *Journal of Academic Librarianship*, 48(4), 102534. https://doi.org/10.1016/j.acalib.2022.102534
- Chan, I., Wong, B., & Liu, S. (2022, April). Hong Kong's think tank ecosystem: Building a revolving door for evidence-based policymakers. (PoD-HKAPP Occasional Paper No.4) Path of Democracy.
 - https://pathofdemocracy.hk/uploads/file/202310/6c5598229fb251511a3b89311e0bdeaf.pdf (Archived at
 - https://web.archive.org/web/20240919123533/https://pathofdemocracy.hk/uploads/file/202310/6c5598229fb251511a3b89311e0bdeaf.pdf)
- Chen, Y., & Li, G. (2016). A study of influence evaluation system of think-tank Websites. *Library Tribune*, 36(5), 25-33, 62.

- Chen, G., Zhang, J., & Chen, M. (2017). Internet activity and influence of Chinese university think tanks: Analysis based on Baidu search index. *Think Tank*: Theory & Practice, 2(2), 15–23. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2017&filename=ZKSL201702003&uniplatform=NZKPT
- Clark, J., & Roodman, D. (2013). Measuring think tank performance: An index of public profile. C G D Policy, 4, 25. https://www.cgdev.org/sites/default/files/think-tank-index_0_0.pdf. (Archived at https://www.cgdev.org/sites/default/files/think-tank-index_0_0.pdf)
- Claveau, F., & Veillette, A. (2022). Appraising the epistemic performance of social systems: The case of think tank evaluations. *Episteme*: A *Journal of Individual and Social Epistemology*, 19(2), 159–177. https://doi.org/10.1017/epi.2020.16
- Huang, K., Fan, Z., Lu, S., & Li, L. (2014). Comparative study of Sino-US think tank Website based on Link Analysis Method. *Information Studies: Theory and Application*, 37(11), 129-133. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFD2014&filename=QBLL201411027&uniplatform=NZKPT
- James, B. (2023, October 16). Top influential think tanks ranked for 2024.

 https://academicinfluence.com/inflection/study-guides/influential-think-tanks)

 https://web.archive.org/web/20240416052517/https://academicinfluence.com/inflection/study-guides/influential-think-tanks)
- Li, Y.C., Shen, J., & Cetindamar, D. (2023). Think tank innovation-driven knowledge service ecosystems: A conceptual framework and case study application. Sustainability, 15(10). https://doi.org/10.3390/su15108355
- Liu, X., & Wang, C. (2020). Research on Altmetrics Indicators from the Perspective of User Motivation. Documentation, Information and Knowledge, 3, 63-70, 96.

 https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2020&filename=TSQC202003008&uniplatform=NZKPT
- Lu, D., & Shi, S. (2020). Analysis of the new think tanks network influence in Guangdong Province based on analytic hierarchy process. *Think Tank: Theory and Practice*, 5(6), 33-43. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2021&filename=ZKSL202006005&uniplatform=NZKPT
- McGann, J. G. (2021, January 28). 2020 Global Go To Think Tank Index Report.

 https://guides.library.upenn.edu/publicpolicyresearchthinktanks (Archived at https://web.archive.org/web/20231102051600/https://repository.upenn.edu/)
- Mcnutt, K., & Marchildon, G. (2009). Think tanks and the Web: Measuring visibility and influence. *Canadian Public Policy*, 35(2), 219-236. https://doi.org/10.3138/CPP.35.2.219
- Medina-Iborra, I., & Guttormsen, D. S. A. (2013). Visibility and activity: Foreign affairs think tanks in the United Kingdom. *Political Perspectives*, 7(1), 46-74. https://ore.exeter.ac.uk/repository/handle/10871/16602
- Meng, Z., & Chen, Y. (2021). Comparison of think tank Websites between China and the United States. *Journal of Intelligence*, 40(1), 120-125, 32. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS T2021&filename=QBZZ202101017&uniplatform=NZKPT

- Misztal, B. A. (2012). Public intellectuals and think tanks: A free market in ideas? *International Journal of Politics*, *Culture*, *And Society*, 25(4), 127-141. https://doi.org/10.1007/s10767-012-9126-3
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Journal of Clinical Epidemiology*, 62(10), 1006-1012. https://doi.org/10.1016/j.jclinepi.2009.06.005
- Ouyang, J., Zhou, Y., & Zhang, P. (2021). Research on the international social media influence of China think tank and its promotion path. *Think Tank: Theory and Practice*, 6(6), 28-38. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2022&filename=ZKSL202106005&uniplatform=NZKPT
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ..., Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. BMJ, 372, n71. https://doi.org/10.1136/bmj.n71
- Pei, R., Liu, H., & Yang, G. (2018). Research progress on think tanks in domestic and abroad based on bibliometrics and content analysis method. *Think Tank*: Theory and Practice, 3(3), 17-26. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2018&filename=ZKSL201803003&uniplatform=NZKPT
- Pineda, A., Hernandez-Santaolalla, V., Algaba, C., & Barragan-Romero, A. I. (2019). The politics of think tanks in social media: FAES, YouTube and free-market ideology. *International Journal of Media and Cultural Politics*, 15(1), 3-25. https://doi.org/10.1386/macp.15.1.3
- Priem, J., Taraborelli, D., Groth, P., & Neylon, C. (2010, October 26). Altmetrics: A manifesto. http://altmetrics.org/manifesto (accessed 11 May 2024). (Archived at https://web.archive.org/web/20240224131016/http://altmetrics.org/manifesto/)
- Qiu, J., & Liu, N. (2016). Analysis of the influence of the think-tank website evaluation. *Journal of Chongqing University* (Social Science Edition), 22(3), 109-114. https://doi.org/10.11835/j.issn.1008-5831.2016.03.014
- Qiu, J., & Zu, W. (2018). Evaluation and analysis of network influence of Chinese university think tank based on AHP and group policy. *Journal of Modern Information*, 38(8), 99-106. https://doi.org/10.3969/j.issn.1008-0821.2018.08.014
- Qiu, J., Zhang, X., & Dong, K. (2015). Research on the application of altmetrics in institutional repositories. Library and Information Service, 59(2), 100-105. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2015&filename=TSQB201502017&uniplatform=NZKPT
- Research Group of Zhejiang University of Technology Global Think Tank Research Center. (2016). On the network activity of the think tank in Zhejiang Province. Journal of Zhejiang University of Technology (Social Sciences), 15(2), 121-127. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2016&filename=SZGD201602002&uniplatform=NZKPT
- Ren, M. (2020). News production and communication in the era of social media. News Culture Construction, 2, 71-73.

 https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS
 T2020&filename=WWJH202002024&uniplatform=NZKPT

- Roger-Monzo, V., & Castello-Sirvent, F. (2023). Soft power in global governance: fsQCA of thematic specialization strategies of European think tanks. *Global Policy*, 14(2), 288-304. https://doi.org/10.1111/1758-5899.13207
- Rojas-Estrada, E. G., Aguaded, I., & García-Ruiz, R. (2024). Media and information literacy in the prescribed curriculum: A systematic review on its integration. Education and Information Technologies, 29, 9445-9472. https://doi.org/10.1007/s10639-023-12154-0
- Shen, H., & Fang, L. (2022). Study on social network influence of Chinese media think tanks. Journal of Communication University of China (Science and Technology), 29(2), 34-45. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS T2022&filename=BJGB202202005&uniplatform=NZKPT
- Shen, J., Cai, W., & Bi, Y. (2020). The status, hot-spots and frontiers in think tank research.

 Information Studies: Theory and Application, 43(12), 33-41.

 https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS

 T2020&filename=QBLL202012006&uniplatform=NZKPT
- Stieglitz, S., & Dang-Xuan, L. (2013). Emotions and information diffusion in social media: Sentiment of microblogs and sharing behavior. *Journal of Management Information* Systems, 29(4), 217-248. https://doi.org/10.2753/MIS0742-1222290408
- Wang, Y., Guo, S., & Zhang, J. (2015). Study on correlation of researcher influence indicators.

 Library and Information Service, 59(5), 106-112+127.

 https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS
 T2015&filename=TSQB201505023&uniplatform=NZKPT
- Xiang, D., & Zhang, W. (2018). A study of the network impact of global think-tanks in the new media era. *Global Review*, 10(1), 129-146, 153-154.

 https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS
 T2018&filename=GJZW201801008&uniplatform=NZKPT
- Xiao, D. (2020). Evaluation of social think tank Website influence in China based on link analysis. Information Research, 2, 36-41. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2020&filename=QBTS202002006&uniplatform=NZKPT
- Xie, Z., Chen, H., & Peng, J. (2019). Promotion strategy of think tank influence based on self-media intermediary effect. *Information Science*, 37(8), 81-86. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS
 T2019&filename=QBKX201908013&uniplatform=NZKPT
- Xu, Y., & Chen, Y. (2021). A comparative study on the influence of think tanks between China and the United States based on altmetrics. *Journal of Intelligence*, 40(12), 87–94, 162. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2021&filename=QBZZ202112013&uniplatform=NZKPT
- Yang, L., & Chen, G. (2015). Correlation study on evaluation indicators of scientific institution influence from the perspective of altmetrics. *Library and Information Service*, 59(15), 106–114, 132.

 https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2015&filename=TSQB201515020&uniplatform=NZKPT
- Yang, S., & Feng, Y. (2017). Comparative evaluation study on network influence of Chinese think tanks. *Journal of Chongqing University* (Social Science Edition), 23(2), 68-78.

- https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS T2017&filename=CDSK201702007&uniplatform=NZKPT
- Yu, F. (2019). Research on the influence evaluation of China's education think tanks Websites based on the link-based analysis. *Journal of Jiangxi Science and Technology Normal University*, 1, 96-103.
 - https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS T2019&filename=NZJS201901015&uniplatform=NZKPT
- Yuan, J., Xu, F., & Li, F. (2023). Evaluation of the influence of Chinese Al think tanks. *Journal of Intelligence*, 42(10), 176–184. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS
- T2023&filename=QBZZ202310025&uniplatform=NZKPT

 Zhang, L., Zhang, X., Li, Z., & Lu, H. (2018). Evaluation of think tanks' information dissemination capacity on WeChat public platform based on BP neural network. *Information Studies:*Theory and Application, 41(10), 93-99.
 - https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS T2018&filename=QBLL201810015&uniplatform=NZKPT
- Zhang, Y., & Ren, F. (2017). Evaluation of network communication power of think tank based on AHP and entropy method. *Information Science*, 35(3), 110-116. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAS T2017&filename=QBKX201703020&uniplatform=NZKPT
- Zhang, Y., Wang, Y., & Zhang, R. (2021). Research on public opinion guidance measurement of media-based think tanks based on sentiment analysis. *Information Studies: Theory and Application*, 44(4), 130–137. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2021&filename=QBLL202104017&uniplatform=NZKPT
- Zhu, X., & Zhao, J. (2021). Think tank development in the social media era: Opportunities and challenges. *Governance Studies*, 37(1), 90–97. https://chn.oversea.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2021&filename=ZSWD202101010&uniplatform=NZKPT

Copyright

Authors contributing to *Information Research* agree to publish their articles under a <u>Creative Commons CC BY-NC 4.0 license</u>, which gives third parties the right to copy and redistribute the material in any medium or format. It also gives third parties the right to remix, transform and build upon the material for any purpose, except commercial, on the condition that clear acknowledgment is given to the author(s) of the work, that a link to the license is provided and that it is made clear if changes have been made to the work. This must be done in a reasonable manner, and must not imply that the licensor endorses the use of the work by third parties. The author(s) retain copyright to the work. You can also read more at: https://publicera.kb.se/ir/openaccess