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A Bibliometric Analysis of Current Research Trends in Korean Webtoons from 2018 to 2025

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Abstract: In the digital era, Webtoons have gained remarkable popularity, especially among young people accustomed to online media. This growth supports their global expansion as digital consumption rises. People increasingly prefer online entertainment, making Webtoons widely accessible. This paper is a quantitative research and is intended to examine keyword networks to analyze Webtoon-related studies. Results show "Webtoon" as the most frequent keyword, linked to themes such as Korean wave, brands, transmedia storytelling, and comics globalization. These connections highlight Webtoons' transformation from digital comics into a global creative industry, influencing marketing, animation, and digital regulation. Although less frequent, transmedia storytelling remains significant, positioning Webtoons within a cross-media ecosystem adapted into films and dramas. Ultimately, Webtoons emerge as both cultural phenomena and creative industry drivers.

Keyword: Korean Webtoon, Korean wave, network visualization, keyword analysis.

INTRODUCTION

As technology and digitalization develop, the comic genre, which can be accessed online, has grown rapidly in recent years. One of the most prominent phenomena in comic publishing is Webtoon. Originally from South Korea, Webtoons have become a popular comic genre worldwide (Faisal et al., 2020). This research will discuss the current research trends related to Korean (Zhang et al., 2024). Webtoon is a Korean comic book introduced in 1908 through a woodcut titled Daehan Minho, created by Lee Do Young (Zagita & Sukandar, 2021). Although the original concept had existed since the early 20th century, the Webtoons we know today only began flourishing in South Korea in the early 2000s (Lynn, 2023). Webtoons are comics published digitally and can be accessed through online platforms, such as applications or websites. The concept of Webtoon itself is distinct from traditional comics that are usually published in print format and rely more heavily on physical distribution.

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In the digital age, Webtoons have become very popular among the public, especially among young people familiar with online media technology and consumption. In South Korea, Webtoon is growing rapidly as public interest in Korean dramas and K-Pop, known as 'Korean Wave' or Hallyu (Jang & Song, 2017). This phenomenon supports Webtoon's expansion into the international market, which is expanding as digital media consumption increases. As the digital world grew, media consumption also changed. People today prefer to access entertainment online, making it easier to enjoy various types of content, including Webtoons. The ease of access to internet and technology devices, such as smartphones and tablets drives digital media consumption. By simply downloading the Webtoon application, readers can directly access thousands of comics with various story options.

This phenomenon also shows a change in how the entertainment media views it. In the past, comics could only be found in print and were only available in certain bookstores or kiosks. However, comics can now be easily enjoyed anytime and anywhere through mobile devices. Webtoons make it easy for readers to follow their favorite comic series more practically and flexibly. This is certainly due to the digital lifestyle of modern people, who tend to want comfort and speed in accessing information or entertainment.

Several factors support Webtoon's success and development in South Korea. First, the internet is important in spreading Webtoons to the public. With ease of access through the internet, anyone can access this comic anytime and anywhere, just by using a mobile device or computer. Not only that, but the faster and more affordable Internet speed also facilitates real-time content distribution.

Second, business models that support Webtoon's growth also played a significant role. Since its inception, many Webtoon platforms have offered free content, which makes it more accessible to a wide range of people, especially young people. In addition, a subscription-based business model system was also introduced, allowing readers to access premium content at a specific cost. This creates healthy competition between different platforms to present high-quality content and appeal to readers.

Third, government laws that support Webtoon's development also have a positive impact on the spread of this content. The South Korean government provides support in the form of tax incentives and policies that support the creative industry, including Webtoon (Lent, 2022). This encourages more artists and authors to work on the platform, creating a growing and mutually supportive ecosystem.

Fourth, the efforts of creative and innovative Webtoon artists and authors have succeeded in attracting readers' attention. With its attractive image quality, powerful storyline, and relatable characters, Webtoon has created a new world that makes readers feel at home to keep up with these stories. Therefore, Webtoon shares increased rapidly, reaching 36.5% in 2015 (Zagita & Sukandar, 2021). This shows how much influence Webtoons have on South Korean people's lives.

Webtoons began to enter the Indonesian market in 2015 through the LINE Webtoon platform, which was first launched in April of that year. Since then, Webtoon has become a significant phenomenon, especially among Generation Z, who are familiar with technology and social media. LINE Webtoon Indonesia became one of the most active platforms in the world, with about six million active users in 2019. This figure is the highest compared to other countries, indicating that Indonesia has a large market for Webtoon (Noble & Schewe, 2021).

Indeed, the popularity of Webtoons in Indonesia cannot be separated from the significant influence of Korean culture that began to penetrate Indonesian society in the early 2000s (Maulidita & Darmanto, 2024). The rise of K-Drama and K-Pop during this period reshaped public perceptions of Korean culture, particularly in the realm of entertainment, and contributed to the establishment of a strong cultural presence across Indonesia (Muliawan et al., 2025; Maulidita & Darmanto, 2025). This cultural phenomenon, widely recognized as the

Korean Wave, has extended beyond entertainment, inspiring Indonesians to pursue employment opportunities in South Korea (Darmanto et al., 2025b) and motivating many to study the Korean language and immerse themselves in Korean cultural practices (Darmanto et al., 2025a). Such developments demonstrate that Korean popular culture has not only entertained Indonesian audiences but also shaped their aspirations, lifestyles, and cultural engagements in profound ways.

The link between Webtoons and other forms of Korean popular culture has further reinforced this dynamic. Many of the most popular Korean dramas in Indonesia originated from Webtoon adaptations, such as *Princess Hours* (2004) and *Full House* (2006), which successfully captured the imagination of Indonesian viewers. The success of these adaptations encouraged fans to explore the original comic versions, thereby broadening the readership of Webtoons in Indonesia. This reciprocal relationship between drama and digital comics illustrates how cultural products feed into one another, amplifying their reach and impact. Ultimately, the convergence of Webtoons, K-Drama, and K-Pop under the larger framework of the Korean Wave has created a powerful ecosystem of cultural exchange that continues to sustain and expand the popularity of Korean creative industries in Indonesia.

Given this growing prominence, academic interest in Korean culture has also intensified, fueled by the widespread appeal of the Korean Wave itself. In particular, research focusing on Webtoons has gained momentum, reflecting their dual role as both independent cultural products and sources of adaptation for other media. This study seeks to identify and analyze keyword networks in existing Webtoon-related research, providing a clearer understanding of how scholarship in this field is structured and where emerging areas of inquiry are developing.

METHOD

The research belongs to quantitative research in which the method used in this study was to collect articles related to the range from 2018 to 2025. We searched for collected paper from the appropriate database using Mendeley's tools (Yuliani et al., 2022). Then, we conducted paper filters and selections that matched the focus of the research. The selected data papers were then stored in '.ris' (Research Information System) format. The next process was to create a network visualization of keyword appearance and visualization mapping using VOSviewer software (Zhou et al., 2022). Visualization was performed by loading '.ris data' containing selected paper data. VOSviewer is open-source software for bibliometric analysis that can analyze large amounts of data and provide excellent network data mapping (Nandiyanto & Al Husaeni, 2021).

After that, a co-occurrence study of keywords and clusters was conducted. Then. value variables were proposed, and the difference in the value of several article keywords through value variables was explained. Finally, we categorized and analyzed selected papers by theme, methodology, and key findings to identify the general trends, gaps, and emerging research areas (Kirby, 2023). This research was grouped by keyword groups resulting from the visualization of VOSviewer, providing insight into the evolution of this field from 2018 to 2025. Particular attention was paid to studies that contribute significantly to theoretical frameworks and practical applications. The implications of these findings were discussed, suggesting future research directions and addressing gaps in the literature. This study aims to provide a comprehensive overview of this field and offer valuable insights for future research. The process of conducting this research can be seen in Figure 1 below.



Figure 1. Research method flowchart

RESULTS AND DISCUSSION

Preliminary Results

The search strategies, topics and publication titles, and results are shown in Table 1. There were 98 articles found through Mendeley's database. Then an article elimination process was carried out, leaving 95 eligible for analysis. Details of these data selection considerations are also shown in Figure 2.



Figure 2. Obtaining articles

Tabel 1. Search Strateg	y
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Search Strategy	Topics and Publication	Results	
	Titles		
Database: Mendeley			
Search in: Publication Titles,	"Webtoon Korean"	98	
Keywords			
Type of Article: Review or Article			
Publication Years: 2018-2025			

Keyword Analysis

The results of the VOSviewer deployment are shown in Figure 3 and 4. Figure 3 is a conceptual network map illustrating the relationship between various aspects related to Webtoons. The "Webtoon" keyword is at the center of the diagram, which is the most frequently emerging keyword with various branching categories. The network is divided into three main classes: Class A, Class B, and Class C, each of which represents different aspects of each study. Class A is more concerned with branding and trust in Webtoons, with keywords such as brand Webtoon, ad buyability, Korean popular culture, dissemination, and education showing that Webtoons are also studied in the context of marketing, the spread of Korean culture and education. Later, class b focused on the aspect of transmitting and expanding Webtoons into other forms of media as well as global markets. Finally, Class C emphasizes the Webtoon industry's historical, regulatory, and structural aspects. Concepts such as manhwa, government regulation, history, agents and structure, and transmedia indicate that the development of Webtoons is inseparable from government regulations and historical changes in the digital comics industry.

Figure 4 describes the visualization of the network, classifying three main classes: Class A, Class B, and Class C. The network structure resembles the previous figure in Figure 3, but adding a color scale at the bottom shows the time range from 2018 to 2025. The color of each node indicates when the concept began to appear or develop in research related to Webtoons. Yellower nodes indicate newer keywords, while bluer nodes reflect previously written keywords. In terms of temporal trends, concepts such as Korean Wave and cover dance appear more recently (yellow), reflecting the increasing influence of Korean culture in the new digital age. Taken together, Figures 3 and 4 not only map the conceptual and temporal dynamics of Webtoon research but also highlight the evolution of scholarly attention from cultural dissemination to industrial structures and emerging transmedia practices.

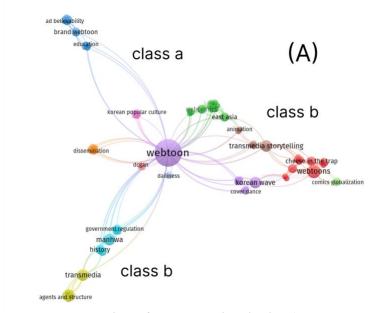


Figure 3. Network Visualization A

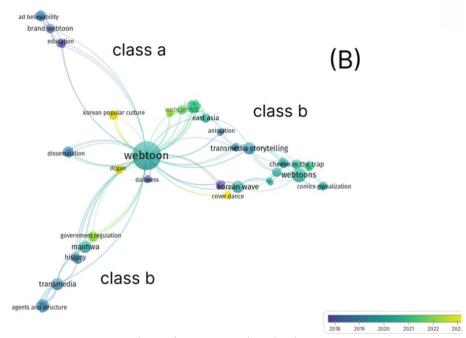


Figure 4. Network Visualization B

Keywords Impact

Figure 5 is a heatmap visualization of the Webtoon-related keyword network visualization, which was previously shown in the form of a network diagram. This heatmap shows the intensity of the linkage between keywords using color gradations, where yellow indicates areas of higher density or stronger relationships, while blue indicates areas of lower density or weaker relationships. The keyword 'Webtoon' is centrally located in bright yellow, indicating that this topic is the core of the entire network of analyzed keywords. As in the previous network diagram, Keyword is still divided into three main categories. In the lower left, concepts such as manhwa, transmedia, and history appear to have a strong relationship, indicating that aspects of history and transmission of Webtoons are an important part of academic discussions.

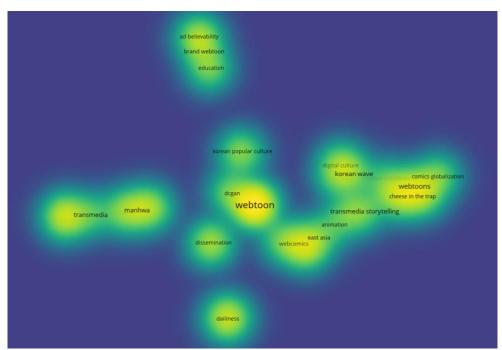


Figure 4. Heatmap Visualization

In addition, the top of the picture shows a strong relationship between Webtoons and aspects of marketing and brand trust, as seen in Webtoon brands, ad purchase ability, and education. The presence of 'dcgan' near the network center shows research related to digital technology in the development of Webtoons. Thus, this heatmap provides an additional perspective on the distribution and intensity of relationships between keywords in Webtoon research, helping to identify which topics are studied more frequently or have a stronger relationship in research.

Keyword Frequency

Table 2 shows some Webtoon-related keywords' occurrence frequency and total link strength. The keyword 'Webtoon' appears 14 times, with a total string of 72 links, the highest frequency, indicating that the term is central to research analyzed from 2018 to 2025. Meanwhile, the term 'Webtoons' appears four times with a total of 20 link strength, meaning that although it is still relevant, its use is less common than its single form, 'Webtoons.'

In addition, keywords related to transmedia also appear in this table. The keywords 'transmedia' and 'transmedia storytelling' have three appearances each, with a total of 16 and 15 related. This shows that keyword transmittance in Webtoons is still significantly relevant to Webtoon research trends. A relatively smaller total link string value compared to 'Webtoons' suggests that the topic of transmedia is more specific and may be often associated with specific keywords in Webtoon-related research. Thus, the findings indicate that while 'Webtoon' remains the dominant keyword, emerging concepts such as transmedia storytelling are increasingly shaping the direction of scholarly discussions in this field.

Table 2. Keyword frequency

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Keyword	Occurrence	Link strength total
webtoon	14	72
webtoons	4	20
transmedia	3	16
transmedia storytelling	3	15

Discussion

The search strategies, topics, and publication titles summarized in Table 1 illustrate how research on Webtoons has developed within academic discourse. Using the Mendeley database, a total of 98 articles were initially identified based on publication titles and keywords. Following the elimination of ineligible articles, 95 articles were deemed relevant for further analysis, as shown in Figure 2. This filtering process was crucial to ensure that the data analyzed accurately reflected contemporary discussions on Webtoons between 2018 and 2025. The refined data provided a solid foundation for keyword network and frequency analyses, which highlight the themes, connections, and evolving focus areas in Webtoon research.

The conceptual network visualization using VOSviewer, presented in Figure 3, reveals the keyword "Webtoon" as the central and most significant node. Its high frequency and strong connections across categories confirm its role as the focal concept in this field. The network is divided into three thematic clusters—Class A, Class B, and Class C—each representing a different dimension of scholarly inquiry into Webtoons. Class A emphasizes branding, trust, and educational value, evident from keywords such as Webtoon brand, advertising purchase ability, dissemination, and Korean culture. This indicates that scholars are not only exploring Webtoons as cultural artifacts but also as economic products embedded within marketing strategies and educational contexts. The inclusion of terms like "education" highlights how Webtoons are studied as tools for learning or cultural dissemination, suggesting a pedagogical potential beyond entertainment.

Class B represents another crucial trajectory of Webtoon studies: transmedia storytelling and global adaptation. Keywords such as webcomics, comics globalization, Korean Wave, and titles like Cheese in the Trap demonstrate how Webtoons extend beyond their digital comic origins into broader multimedia formats. This reflects the capacity of Webtoons to be adapted into films, dramas, animations, and even performance forms like cover dance. The connection with the Korean Wave is particularly significant because it positions Webtoons as part of Korea's broader cultural export strategy, aligning them with global phenomena such as K-Pop and K-Drama (Choi, 2023). Thus, Webtoons become not only a form of entertainment but also an instrument of cultural diplomacy and global media influence.

Class C, on the other hand, situates Webtoons within historical and structural contexts. Keywords such as manhwa, regulation, history, and industry structures indicate that the growth of Webtoons cannot be separated from earlier comic traditions and the regulatory environments that shape digital industries. These terms point to the role of government agencies, market actors, and institutional structures in shaping how Webtoons evolve. The presence of "agents and structures" suggests a sociological dimension in Webtoon studies, where researchers examine the power dynamics between creative individuals, industry stakeholders, and regulatory frameworks (Jin, 2015). In this sense, Webtoons are not merely cultural texts but also products influenced by broader economic and political conditions.

Figure 4 adds a temporal perspective by illustrating the development of keywords from 2018 to 2025. The color gradient indicates that more recent studies focus on phenomena such as the Korean Wave and cover dance, which appear in brighter yellow, signifying their emergence in newer scholarship. Older keywords, such as manhwa and regulation, are represented in cooler blue tones, reflecting earlier but still foundational discussions. This temporal mapping demonstrates the evolution of research themes, showing how Webtoon studies have shifted from regulatory and historical concerns to more dynamic cultural and transmedia narratives in recent years.

Further insight is provided by the heatmap visualization in Figure 5. Here, the keyword "Webtoon" is once again central, with a bright yellow node signaling its dominant position. Surrounding nodes show varying densities of connections, where yellow areas

denote stronger relationships and blue areas weaker ones. The clustering of marketing-related terms like Webtoon brands, advertising purchase ability, and education indicates that these topics are frequently interconnected, pointing to sustained interest in the economic and communicative aspects of Webtoons. Simultaneously, the prominence of terms such as webcomics, comics globalization, and transmedia storytelling highlights how Webtoons are framed within global and cross-media contexts (Jin, 2019). The inclusion of "dcgan" near the center reflects technological research interests, suggesting that scholars are also exploring digital innovations that influence Webtoon creation and distribution.

Keyword frequency analysis, presented in Table 2, further consolidates these findings. The singular term "Webtoon" dominates with 14 occurrences and a total link strength of 72, underscoring its centrality in academic discussions. The plural form "Webtoons," although related, appears less frequently, indicating that scholarship tends to treat the concept in a general sense rather than as pluralized forms. Importantly, terms such as "transmedia" and "transmedia storytelling" appear three times each, with total link strengths of 16 and 15, respectively. While these values are lower than those for "Webtoon," they highlight the growing significance of cross-media narratives within Webtoon research. This suggests that while the field continues to recognize Webtoons primarily as digital comics, there is increasing acknowledgment of their role in broader transmedia ecosystems.

Taken together, these results reveal that Webtoon studies are multifaceted, spanning cultural, economic, technological, and regulatory perspectives. The centrality of "Webtoon" as a keyword confirms its prominence as both an object of study and a cultural phenomenon. Meanwhile, the clustering of themes across Classes A, B, and C highlights how research has expanded from domestic contexts and structural histories to globalized and transmedia perspectives. The temporal and heatmap visualizations provide additional depth, showing how newer research reflects ongoing cultural trends such as the Korean Wave. Finally, the keyword frequency analysis confirms that while Webtoon remains the dominant concept, related themes like transmedia storytelling are steadily gaining importance.

CONCLUSION

Based on analysis of the network visualization and keyword frequency, it can be inferred that Webtoons are the most frequently emerging main keywords and have the strongest connection with several other keyword topics. The term is not only dominant in some studies but also has broad relationships with various keywords such as Webtoon brands, transmedia, Korean wave, and globalization comics. This suggests that Webtoons have evolved into global phenomena involving a variety of industries, including animation, marketing, and digital regulation.

In addition, the concept of transmitting and transmitting storytelling also has relevance in academic discussions related to Webtoons, albeit with a lower frequency of emergence. This indicates that Webtoons are increasingly seen in the context of broader cross-media narratives and digital ecosystems. Thus, research on Webtoons focuses not only on their content, but also on how Webtoons are developing as part of the creative and digital media industry that is constantly undergoing transformation.

This study has several limitations that should be acknowledged. First, the data collection process relied solely on the Mendeley database, which may have restricted the range of publications included. Other academic databases such as Scopus, Web of Science, or Google Scholar might provide additional sources that could enrich the findings. Second, the research covered publications from 2018 to 2025, so earlier influential works on Webtoons may have been excluded, potentially limiting the historical context. Third, the keyword analysis depended on the accuracy and consistency of author-provided metadata, which may not fully represent the conceptual depth of the studies. Finally, the visualizations produced by

VOSviewer provide valuable insights but remain interpretive, and clustering may oversimplify the complexity of thematic connections in Webtoon research.

Future studies should consider expanding the data sources to include multiple academic databases, ensuring a more comprehensive representation of Webtoon-related scholarship. Comparative analyses across databases could highlight differences in indexing and thematic focus. Researchers may also broaden the temporal scope to include earlier works that trace the origins and evolution of Webtoons, offering richer historical insight. Additionally, future studies could apply mixed methods, combining bibliometric analysis with qualitative content analysis of selected articles to deepen understanding of thematic trends. Investigating audience reception, industry practices, and the economic impact of Webtoons across different countries could also yield valuable perspectives. Finally, future research should explore emerging themes such as artificial intelligence in Webtoon creation, cross-platform adaptation strategies, and the role of Webtoons in shaping digital cultural ecosystems globally.

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