

The Filter Bubble Trap: The Effect of TikTok Media on Language Use and Interaction Among Communication Science Students at UINSU

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Abstract

This article aims to explore the impact of the filter bubble created by the social media algorithm of TikTok on the language use and social interactions of Communication Studies students at the State Islamic University of North Sumatra (UINSU). The urgency of this research lies in the increasing dominance of TikTok in students' daily lives and how this platform shapes their behavioral and communication patterns. This study employs a qualitative method with a field research approach. The primary data sources are 10 key informants selected through purposive sampling, while secondary data are derived from books, scholarly articles, and reports. Data collection techniques include interviews, observations, documentation, and literature study. Data analysis is carried out through data reduction, data display, and conclusion drawing, with the validity of the data tested using triangulation techniques. The findings indicate that the filter bubble phenomenon has varied effects on students. On one hand, some students feel that the filter bubble limits their views on social and cultural issues, while others find it helpful in obtaining relevant and beneficial information. Additionally, TikTok also influences the language usage of students, with some reporting an expansion in their vocabulary and an increase in creativity, although it also leads to the use of more colloquial and less formal language. The discussion highlights the importance of digital literacy and critical awareness in utilizing social media. These findings align with the filter bubble theory by Eli Pariser, which emphasizes the need for exposure to diverse views to avoid intellectual isolation. Overall, the research suggests that students should be trained to use social media wisely, enabling them to maximize its benefits without falling into the shackles of the filter bubble.

Keywords: Filter Bubble, Tiktok, Language, Interaction, Students



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INTRODUCTION

TikTok has emerged as one of the new social media platforms frequently utilized by the populace. Data revealed by the We Are Social report, indicating that as of October 2023, there were approximately 106.51 million TikTok users in Indonesia, has sharply highlighted the platform's penetration in this country's social media landscape[1]. This figure underscores the increasingly dominant role of TikTok in Indonesia's digital culture, reflecting the extensive impact of this platform on online behavior and communication dynamics. Furthermore, Indonesia's status as the country with the second highest number of TikTok users globally underscores the significance and market potential held by Indonesia in the global social media sphere, as well as its implications on both local and international digital content trends and culture.

The shackles of the filter bubble, reinforced by social media algorithms such as TikTok, play a crucial role in shaping the behavioral patterns and social interactions of its users. On platforms like TikTok, algorithms tend to recommend content that aligns with previous preferences and habits, creating what is known as a "filter bubble" where users are trapped within a narrow and often biased circle of information. In the context of language usage and student interactions, this phenomenon can have significant impacts. TikTok users are likely to be exposed to content similar to what they have liked or interacted with before, limiting the scope of perspectives and the variety of language and interactions [2]. For instance, a student interested in a particular topic may tend to be exposed only to familiar viewpoints, which could subsequently influence their language use and interactions with fellow students both online and offline.

The effects of the filter bubble in the context of TikTok media can exacerbate disparities in students' social lives. [3]. Being trapped within a narrow information loop, students tend to have limited access to cultural diversity, viewpoints, and language. This can reduce their opportunities to interact with different groups and broaden their horizons. Moreover, the shackles of the filter bubble can also lead to opinion polarization among students [4], Because they tend to be exposed only to views they have previously agreed with, this can strengthen social silos and narrow the space for dialogue and deeper understanding between different groups. Therefore, it is important for students to become more aware of the existence of filter bubbles

and strive to seek diverse information sources and be open to different perspectives to enrich their social and intellectual experiences.

Filter bubbles create a constrictive space by isolating users within a narrow, polarized circle of information, where social media algorithms like TikTok automatically adjust the content suggested based on previous preferences and interactions. When users are only exposed to viewpoints similar to their own, they tend to experience a fragmented and limited online experience, restricting their access to a variety of information, languages, and interactions [5]. This results in a constrictive space where users are trapped in a cycle that reinforces existing beliefs, while the possibility of exploring new perspectives or diverse information becomes limited.

The use of TikTok has had a significant impact on language variation, especially among teenagers and students who are active users of the platform. With features like lip sync, memes, and a range of content displaying various dialects and language styles, TikTok serves as a medium that enriches language diversity while creating new slang and unique language variations. This phenomenon affects how language is used and understood by the younger generation, creating a new culture around language use in a digital context [6]. However, this variation in language can also pose challenges in intergenerational or intercultural communication, as the understanding of vocabulary or language style may differ among various groups..

TikTok has significantly changed group dynamics, especially among the younger generation. The platform enables users to connect, interact, and share content with their peers instantly, creating a vast and integrated community across the globe. Consequently, the concept of groups becomes more fluid and is not limited by traditional geographical or social boundaries [7]. TikTok creates opportunities for individuals to find peer groups with similar interests, creating an inclusive space for self-expression and social identification. However, while it facilitates the formation of new bonds, it can also lead to the creation of exclusive groups and strengthen divisions between groups, especially if interactions only occur within previously known circles.

The urgency of this research lies in exploring the impact of the filter bubble generated by the TikTok media platform on language use and social interactions among Communication Studies students at UINSU. In an era where social media plays a crucial role in identity formation and social interactions, a deep understanding of how this phenomenon affects the communication dynamics of students is essential. This research can provide the insights needed to develop more inclusive educational approaches and effective communication strategies to address the challenges arising from the use of social media in higher education environments.

LITERATURE REVIEW

In this research, the term "shackles" is used metaphorically to describe influences that bind or restrict [8]. This refers to the concept of the 'filter bubble' on the social media platform TikTok, which potentially limits or directs the language use and interaction patterns of its users. The 'filter bubble' concept refers to the mechanism by which TikTok's algorithm filters the content presented to users, resulting in their exposure primarily to information that aligns with their existing preferences and interests. This phenomenon can lead to the user's isolation from broader information and perspectives, thus limiting their exposure to a diversity of thoughts and opinions [9].

This study highlights the social media platform TikTok as the primary object of study, aiming to identify and analyze its impact on its users. Special focus is given to how TikTok, as an increasingly popular social media platform, influences user behavior, particularly among Communication Studies students. This research delves deeper into how TikTok not only serves as a means of entertainment but also as a communication tool that affects the way students interact and convey information, reflecting social and communication changes in the digital era [10].

In the context of TikTok usage, this study explores how Communication Studies students at the State Islamic University of North Sumatra adapt and modify their language. The primary focus is on the changes in the use of dialects, slang, or specific jargon influenced by the popularity and content present on TikTok. Through this analysis, the research aims to understand the evolving language dynamics among these students, as well as how digitalization and social media shape the evolution of language and communication in the modern era [11].

This study employs the Filter Bubble theory and the Network Society theory as frameworks for analysis. The Filter Bubble theory, proposed by Eli Pariser, describes how social media algorithms limit the information we receive, reinforce our own views, and reduce exposure to differing ideas, creating intellectual isolation [12]. Meanwhile, the Network Society theory by Manuel Castells explains the social and economic transformations through information technology, with networks as the basis of analysis, emphasizing how

digital connectivity affects global social structures and dynamics [13], [14]. Subsequently, the author will review previous research to identify gaps and novelties in the study.

Research by Boeker and Urman (2022) aimed to investigate the personalization factors influencing TikTok user experiences [15]. Through an empirical approach, this study seeks to understand how content personalization contributes to user interactions with the platform, which can provide valuable insights for practitioners and researchers in designing more effective personalization strategies. Meanwhile, this study aims to create what is known as a "filter bubble," where users are trapped in a narrow and often biased circle of information.

Chen, Chan, Zhang, Liu, and Wu (2023) conducted a field experiment to explore the effects of diversity in algorithmic recommendations on digital content consumption [16]. This study aims to understand how variations in algorithmic recommendations affect online content consumption patterns, thereby providing crucial insights into the dynamics of the filter bubble and its impact on users' information preferences. Meanwhile, this study aims to investigate how filter bubbles create a constrictive space by isolating users within a narrow and polarized circle of information, where social media algorithms like TikTok automatically adjust the recommended content based on previous preferences and interactions.

The research by Shcherbakova and Nikiforchuk (2022) explores the relationship between social media and the filter bubble [17]. In this scholarly work, the authors introduce the concept of the filter bubble and analyze how social media influences the formation of filter bubbles among its users. This research provides a framework for understanding the mechanisms of filter bubble formation and its implications for online behavior and social interaction. Meanwhile, this study explores the effects of the filter bubble in the context of TikTok media, which can exacerbate disparities in the social lives of students.

Wang and Guo (2023) explore the motivations behind TikTok addiction and the role of algorithmic awareness in moderating this phenomenon [18]. This study seeks to understand the psychological factors driving TikTok addiction and how awareness of algorithms can influence user behavior on the platform. Thus, this research provides valuable insights into the dynamics of social media addiction and its impact on individual well-being. Meanwhile, this study explores how TikTok usage has significantly impacted language variation, especially among teenagers and students who are active users of the platform.

RESEARCH METHODS

This article employs qualitative research, enabling the researchers to understand phenomena in their natural context, delving deeper into the experiences, perceptions, and behaviors of students related to TikTok usage [19], [20], [21]. A field research approach will be conducted through direct observation, in-depth interviews, and focus group studies within the environment of the State Islamic University of North Sumatra to collect empirical data on how the filter bubble affects student communication and social interactions [22], [23]. With a constructivist paradigm, this research acknowledges that social reality is shaped by individual interactions, focusing on how Communication Studies students at UINSU perceive and interpret the influence of the filter bubble on their language use and communication practices on TikTok. This approach allows for the development of a deep understanding of the social and linguistic dynamics involved [24].

The location of this research is at Campus IV UINSU, Jl. Lap. Golf No.120, Kp. Tengah, Kec. Pancur Batu, Kabupaten Deli Serdang, Sumatera Utara 20353. The primary data sources for this research are key informants selected through purposive sampling with the following criteria: 1) UINSU students, 2) Users of the TikTok application with a minimum usage of 5 hours per day. The informants' details are as follows:

Code (Name)	Age	Informant Description
APY	22	Primary Informant
SPM	22	Primary Informant
EPW	22	Primary Informant
MAAL	22	Primary Informant
AK	23	Primary Informant
MH	22	Primary Informant
KRSL	21	Primary Informant
AP	21	Primary Informant

Tabel 1. Research Informant

The secondary data sources for this research include books, scholarly articles, and reports. The data collection techniques used in this study are interviews, observations, documentation, and literature review. The data analysis technique employed is the Miles and Huberman method, which involves data reduction, data

display, and conclusion drawing [25]. The validity of the data will be tested using triangulation techniques with media communication experts and triangulation with a systemic literature review [26].

RESULTS

Filter bubble: Shackles and Student Acceptance

The phenomenon of the filter bubble in social media has become an important topic in digital communication research, particularly concerning how platform algorithms like TikTok influence language use and social interaction [27]. The filter bubble refers to the algorithmic mechanism that selectively presents content based on user preferences, thereby limiting their exposure to diverse viewpoints and information. In the context of Communication Science students at UINSU, the filter bubble can significantly impact how they communicate and interact, both directly and through digital media. This study aims to explore the extent to which the filter bubble influences the language use and social interactions of students, as well as how they address this phenomenon in their daily lives.

From various interviews and observations, it is evident that students' experiences with the filter bubble on TikTok are highly diverse. Some students are aware of the filter bubble and feel trapped in a cage of similar content, which can narrow their perspectives on social and cultural issues. On the other hand, there are also those who utilize this algorithm to access relevant information and enrich their understanding of various topics. This study highlights the importance of critical awareness and digital literacy in facing the impacts of the filter bubble and evaluates how TikTok influences language use and interaction dynamics among Communication Science students at UINSU [28].

Code (Initials)	Filter Bubble: Shackles	Student Acceptance
MH	Football content is sufficient, so does not feel restricted.	Does not feel TikTok hinders social and cultural understanding; only as an intermezzo.
MAAL	Unaware of filter bubble, feels FYP matches preferences.	Affects mood; feels many friends are influenced by negative content.
KRSL	Aware of filter bubble, but feels it does not affect.	Feels they get a lot of new and beneficial information.
PE	TikTok algorithm limits viewpoints.	Helps understand social and cultural perspectives.
SPM	Does not feel the impact of filter bubble.	Gets information quickly, but must be critical of the content.
APY	TikTok algorithm limits perspectives on certain issues.	Helps understanding, but must be critical of the content.
ZS	Does not feel filter bubble limits views.	Helps understand many perspectives from comment sections.
EPW	Filter bubble strengthens content according to preferences.	Helps expand understanding of certain trends and topics.

Table 2. Tabulation of Filter Bubble Shackles

This study explores how the filter bubble on TikTok affects students' perceptions and understanding of social and cultural issues. In this context, the filter bubble refers to the phenomenon where social media algorithms present content that aligns with users' preferences, thereby limiting their exposure to diverse perspectives. From the data obtained, it is evident that the effects of the filter bubble vary among students, with some feeling trapped in a loop of similar content, while others feel helped in understanding new perspectives.

A student with the code MH reported that football content sufficiently fills their FYP, so they do not feel restricted by the filter bubble. They do not feel that TikTok hinders social and cultural understanding, seeing the platform only as a daily intermezzo. Conversely, MAAL is unaware of the filter bubble but feels that their FYP matches their preferences and positively influences their mood. However, they also observed that many of their friends are influenced by negative content, indicating that the effects of the filter bubble can vary depending on its use [29].

KRSL shows awareness of the filter bubble but feels they are not significantly affected by it. They consider TikTok a source of new and beneficial information. This student reflects the critical attitude needed to overcome the potential limitations of the filter bubble by actively seeking diverse information. On the other hand, PE acknowledges that TikTok's algorithm limits their viewpoints but still finds the platform helpful in understanding social and cultural perspectives. This indicates that despite the limitations, awareness and wise use of the platform can mitigate its negative effects [30].

SPM and APY noted that they do not significantly feel the impact of the filter bubble or believe that TikTok's algorithm limits their perspectives on certain issues. Both students emphasize the importance of a critical attitude in consuming content, which allows them to still benefit from TikTok. They stress the need for users to seek broader sources of information and maintain a critical view of the content they consume [31].

Finally, ZS and EPW reported more positive experiences. ZS does not feel that the filter bubble limits their views and states that reading the comment sections helps understand many perspectives. EPW notes that the filter bubble reinforces content that matches their preferences but also helps expand their understanding of certain trends and topics. These two students demonstrate that with the right approach, TikTok can be a useful tool for understanding various social and cultural perspectives, despite the potential limitations of the filter bubble.

Overall, this study reveals that the effects of the filter bubble on TikTok are highly dependent on the user's awareness and critical attitude towards the content they consume. Students who actively seek diverse information and maintain a critical perspective are more likely to mitigate the negative effects of the filter bubble, while those who are less aware or passive tend to be more influenced by similar content reinforced by the algorithm. Therefore, it is important for students to develop digital literacy skills and critical awareness to maximize the benefits of using TikTok in understanding social and cultural issues [32].

The Effects of TikTok on Student Language Use and Interaction

TikTok, as a highly popular social media platform among teenagers and young adults, including Communication Studies students at UINSU, has a significant influence on their language use and social interactions. The content distributed through TikTok's algorithm often emphasizes informal, brief, and visual language, which differs from academic or formal communication formats. This impacts how students communicate in both formal and informal contexts. This study explores how TikTok shapes students' language use in daily life and their interactions with peers, lecturers, and the broader community.

Furthermore, TikTok also affects students' social interaction patterns. Interactions on this platform are often based on viral trends and challenges that encourage collective participation and interaction among users. While this can enhance social engagement and creativity, there are concerns that reliance on trends and algorithms may narrow students' perspectives on important issues and reduce the quality of their real-world interactions. This study aims to understand this dual impact and provide insights into how Communication Studies students at UINSU can wisely utilize this platform to support their academic and social development.

Code (Initials)	Effects of TikTok on Language Use	Effects of TikTok on Student Interaction
MH	Football content does not significantly affect everyday language use.	Does not feel TikTok hinders social and cultural understanding; only as an intermezzo.
MAAL	Language style influenced for vocabulary expansion, but not toxic.	TikTok affects mood; many friends are influenced by negative content, becoming more toxic.
KRSL	Does not affect everyday language, but enriches vocabulary.	TikTok provides new and beneficial information; friends change in a positive direction.

PE	Uses some TikTok terms in daily communication.	TikTok helps in understanding social and cultural perspectives; increases creativity.
SPM	Sometimes uses TikTok language, but it needs filtering.	Does not see TikTok as a primary need, just entertainment during free time.
APY	TikTok slang terms carried into daily communication.	TikTok increases engagement and creativity in presentations and academic activities.
ZS	Sometimes uses TikTok terms in presentations, adding new vocabulary.	TikTok helps in getting references and ideas for class discussions and campus activities.
EPW	Often uses TikTok slang in assignments and daily communication.	TikTok enriches social and cultural perspectives, though it strengthens the filter bubble.

Table 3. Effects of TikTok on Language Use and Student Interaction

In this study, the effects of TikTok on language use and interaction among Communication Studies students at UINSU were identified through various experiences reported by the respondents. One key finding is that the content frequently appearing on students' For You Page (FYP) varies, influencing their language use in different ways. The student with the code MH reported that the football content often appearing on their FYP does not significantly affect their everyday language use. They view TikTok only as a daily intermezzo and do not feel that the app hinders their social and cultural understanding. This indicates that the type of content consumed can determine the extent of the platform's influence on language use.

In contrast, MAAL feels that their language use is influenced by TikTok, particularly in terms of adding new vocabulary, although not overly toxic. However, they noted that TikTok affects their mood and observed that many of their friends are influenced by negative content, becoming more toxic in their daily behavior. This suggests that even though the direct impact on language may not be significant, the emotional and social effects of TikTok content can influence the social environment of students [33].

KRSL reported that TikTok does not influence their everyday language but helps to enrich their vocabulary. They feel they gain a lot of beneficial new information and observe that their friends who use TikTok have changed in a more positive direction. This highlights how TikTok can be used as a valuable source of information, depending on how the content is consumed and integrated into daily life [34].

PE acknowledges that they use some TikTok terms in everyday communication. Additionally, they feel that TikTok aids in understanding social and cultural perspectives and enhances creativity. This indicates that TikTok can be an effective tool for learning and developing creative skills, especially when used with clear and critical intentions [35].

SPM indicates that although they occasionally use TikTok language, they feel the need to filter the terms they use. They also do not consider TikTok a primary necessity, only using it as entertainment during leisure time. This more selective approach reflects an awareness of the potential impact of digital content and the importance of maintaining balance in social media consumption.

APY reports that slang from TikTok often carries over into everyday communication. They also note that TikTok enhances engagement and creativity in presentations and academic activities. This suggests that TikTok not only influences language but also the way students interact and convey information in an academic context.

Finally, ZS and EPW report frequent use of TikTok slang in assignments and daily communication. ZS feels that TikTok helps in gaining references and ideas for class discussions and campus activities, while EPW notes that although TikTok enriches their social and cultural perspectives, the platform also reinforces the filter bubble. These respondents highlight how TikTok can be a useful tool for learning and exploring new ideas but also emphasize the importance of being aware of algorithmic biases and filter bubbles that can limit viewpoints.

Overall, this study reveals that TikTok has varied impacts on students' language use and social interactions. These effects are highly dependent on the type of content consumed, how it is integrated into daily life, and the users' critical awareness of the potential negative impacts of the platform's algorithms. These findings underscore the need for better digital literacy and a critical approach to using social media to maximize benefits and minimize negative effects [36].

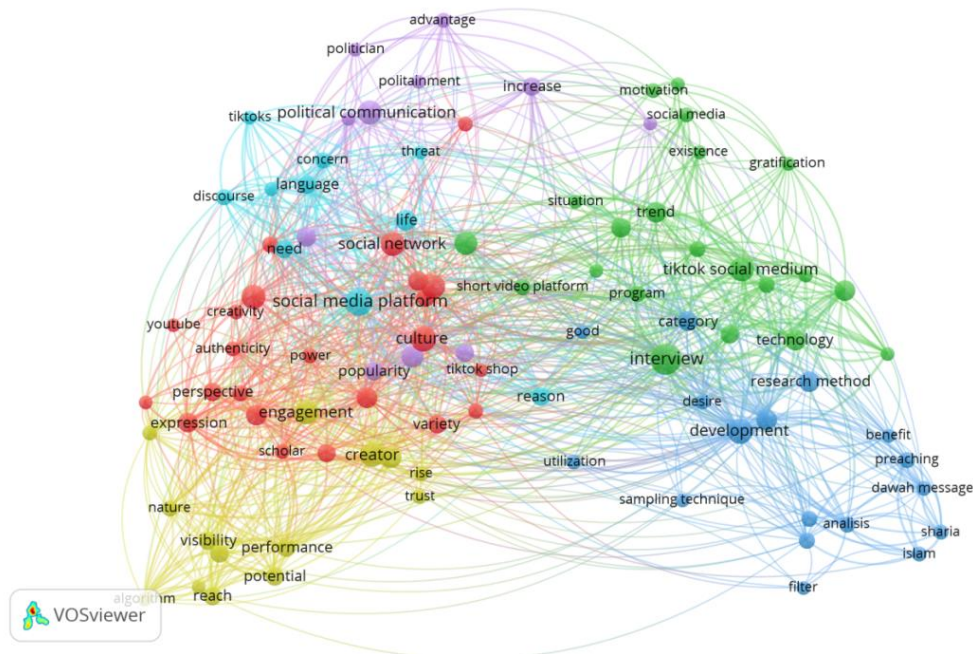
DISCUSSION

Systematical Literature Review: Filter Bubble in Social Cognition

This subsection will discuss "Filter Bubble in Social Cognition" through a Systematic Literature Review (SLR) approach. The filter bubble refers to a situation where individuals are only exposed to information that aligns with their views, thus narrowing perspectives and affecting social understanding. Using

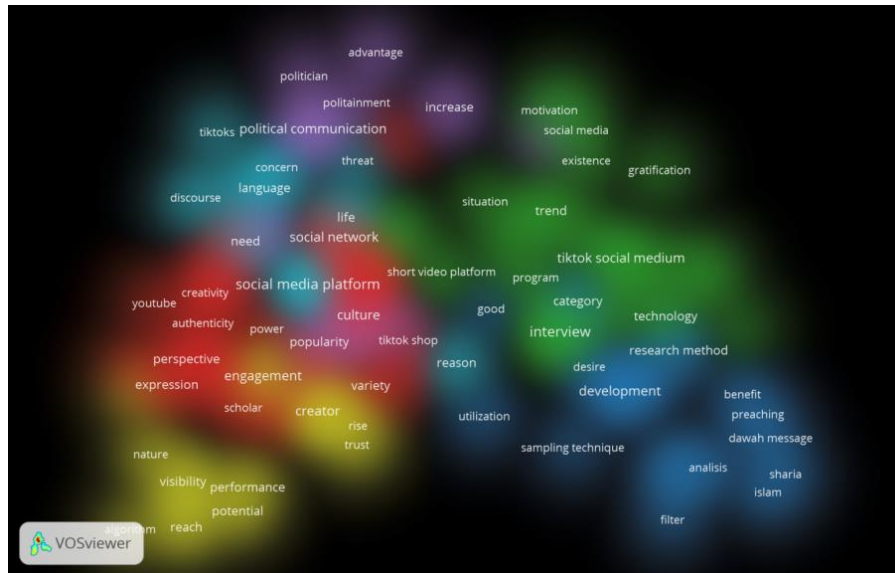
the SLR method, we collect, analyze, and synthesize existing research on the impact of the filter bubble on social cognition. This subsection aims to provide a comprehensive overview of how digital platform algorithms shape users' perceptions and social interactions, as well as the implications for social dynamics in a broader context.

In this analysis, the authors gathered 1,000 previous studies using the Publish or Perish application, which will then be analyzed using the VosViewer application. This analysis includes network analysis and density analysis, with the results as follows:



Picture 1. Network Analysis

The above image is the result of a network analysis conducted using VOSviewer software with the keyword "filter bubble." This analysis identifies the relationships between various concepts related to the filter bubble in the context of social and media. Larger red dots represent the most frequently appearing terms, such as "social media platform," "engagement," and "culture." These terms indicate the significance of social media platforms in shaping user engagement and culture. Additionally, there are terms related to political communication, motivation, and technological development, demonstrating the broad impact of the filter bubble on various aspects of social and political life. The connections between concepts are represented by lines linking these dots, showing that these concepts frequently co-occur in the analyzed literature. Different colors indicate clusters or groups of closely related concepts, highlighting various sub-topics within filter bubble research. This analysis provides insights into how the filter bubble affects the social and cognitive dynamics of social media users and underscores the importance of a comprehensive understanding of this phenomenon in a broader context.



Picture 2. Density Analysis

The above image is the result of a density analysis conducted using VOSviewer software with the keyword "filter bubble." This analysis displays the density of terms related to "filter bubble" in the collected literature. Brighter colors indicate areas with higher term density, signifying that these concepts are frequently discussed together in the research context. Terms like "social media platform," "engagement," and "culture" appear as high-density points, indicating the primary focus of research on how social media platforms influence user engagement and culture. Additionally, terms related to political communication, technological development, and research methodology also appear with significant density, indicating the broad impact of the filter bubble on various social and scientific aspects. This analysis provides essential insights into concentration areas in filter bubble studies, highlighting the main topics often associated with this phenomenon and offering guidance for further research in social cognition and digital media.

The discussion of the filter bubble in the context of social and digital media is highly relevant to the study titled "The Filter Bubble Trap: The Effect of TikTok Media on Language Use and Interaction Among Communication Science Students at UINSU." The network and density analyses presented in Figures 1 and 2 offer deep insights into how the filter bubble operates and affects social cognition and user interactions on social media platforms like TikTok. In the network analysis, terms such as "social media platform," "engagement," and "culture" emerge as focal points, highlighting the critical role of social media in shaping user engagement and culture. This aligns with the findings in the UINSU study, which show that TikTok content influences how students interact and use everyday language.

Eli Pariser, in his theory on the filter bubble, states that social media algorithms present content that aligns with user preferences, indirectly limiting their exposure to diverse viewpoints. This can be observed in the density analysis results, where high-density terms indicate that certain topics frequently co-occur, reinforcing the idea that users are repeatedly exposed to similar content. In the context of UINSU students, this phenomenon is evident in reports that TikTok content enriches their vocabulary but also leads to the use of more informal slang. This indicates that the filter bubble affects not only the perception and information received but also how users communicate.

Furthermore, the network analysis highlights how terms related to political communication, technological development, and research methodology are closely connected, showing that the filter bubble has a broad impact on various aspects of social and political life. This is consistent with the UINSU study findings, where students report that TikTok usage influences their social and cultural perspectives. However, some students also note that the filter bubble can narrow their views on certain issues, leading to a limited understanding. This underscores the importance of critical awareness and digital literacy in addressing the effects of the filter bubble.

Additionally, terms such as "political communication" and "social network" appearing in the network analysis indicate that the filter bubble also affects overall political and social dynamics. For students, this means that the content they consume on TikTok can influence their political views and social interactions.

These findings highlight the need for stricter oversight and regulation of social media algorithms to ensure that users receive diverse and balanced information.

Finally, the density analysis showing terms like "engagement" and "creator" underscores the importance of engagement and content creation in the social media ecosystem. UINSU students report that TikTok enhances their engagement and creativity, which is a positive aspect of using the platform. However, this also brings the risk that high engagement with similar content can reinforce the filter bubble, reducing exposure to diverse viewpoints. Therefore, it is important for users to actively seek diverse content and maintain a critical attitude towards the information they consume.

Overall, this discussion shows that the filter bubble significantly impacts language use and social interaction among students. Eli Pariser's filter bubble theory emphasizes the need for awareness and digital literacy to mitigate the negative effects of social media algorithms. In the context of the UINSU study, it is essential to educate students on how to use TikTok and other social media wisely to ensure they gain maximum benefits without getting trapped in the filter bubble.

CONCLUSIONS AND RECOMMENDATIONS

This study shows that the filter bubble generated by TikTok's algorithms has a significant impact on the language use and social interactions of Communication Science students at UINSU. The effects of the filter bubble vary widely, depending on the type of content consumed and the users' critical awareness of that content. Students who are more critical and proactive in seeking diverse information tend to mitigate the negative effects of the filter bubble, while passive users are more likely to be influenced by repetitive similar content. The study also highlights that while TikTok offers opportunities for creativity and learning, it also carries the risk of narrowing perspectives and polarizing opinions if users are not vigilant about algorithmic biases.

To maximize the benefits of using TikTok and minimize the negative impacts of the filter bubble, it is important for students to develop strong digital literacy skills. Higher education institutions, such as UINSU, can play a crucial role in educating students on how to use social media wisely and critically. Additionally, stricter regulation of social media algorithms is needed to ensure that users have access to diverse and balanced information. Further research is also necessary to explore strategies to counteract the effects of the filter bubble, enabling students to have a more holistic online experience and enrich their perspectives on various social and cultural issues.

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