Proceedings of the International Conference on Global Politics and Socio-Humanities (ICGPSH 2023)
DOI: 10.54254/2753-7064/12/20230106

Exploring the Influencing Factors of Breaking Through the Information Cocoon

Yutong Sun[1,a],Yuhan Wu[2,b,*],and Yilei Zhou[3,c]

[1]Capital University of Economics and Business, Beijing, China
[2]Zhuhai College of Jilin University, Zhuhai, China
[3]Xi'an International Studies University, Xi'an, China
a. 1377339683@qq.com, b. YuhanWu13538196566@stu.zcst.edu.cn, c. 1252230332@qq.com
**corresponding author*

Abstract: In information dissemination, the public often only focuses on the areas of communication they are interested in. Over time, the algorithm recommendation mechanism of online platforms will confine users to information cocoons like "cocoon rooms." Information cocoons allow users to continuously obtain homogeneous information, resulting in a narrow field of vision and a negative impact on media dependence. With improving media awareness and self-awareness among users, some users are actively breaking the information cocoon. This paper investigates the behavior of Weibo users, combined with their behavioral characteristics, to study their proactive behavior and explore the factors that affect them to break the information cocoon. This can help users break through the information cocoon and receive more comprehensive and rich information. Simultaneously achieving a balance in user access to information across various platforms is beneficial for long-term retention. Specifically, a quantitative study is conducted using a questionnaire survey method. Then, correlation analysis and result regression analysis were used for the analysis. The conclusion is that the more frequent information encounters and policy interference, the higher the complexity of online information, and the easier it is for users to break through the information cocoon.

Keywords: information cocoon, Weibo, user behavior, information encounters, social platform choices

1. Introduction

Due to the increasing accessibility of technology terminals today, the speed and scale of information dissemination have reached extremely high levels. It is not an exaggeration to say that today's society has entered the "information society" stage - information and data have become the primary productive forces, filling every corner of human life. In the information society, users have been trapped by vast information, becoming "data prisoners" trapped in it. In today's diverse and influential self-technologies, self-technology has not driven people to manipulate their souls, thoughts, behaviors, and ways of existence. It may not necessarily help people gain "freedom of self-control," but rather, in a sense, it is intertwined with power technology to achieve individual discipline jointly [1]. For users, the existence of information cocoons allows them to continuously obtain homogeneous information, resulting in a narrow perspective and a negative impact on media

© 2023 The Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

DOI: 10.54254/2753-7064/12/20230106

dependence; For platforms, information cocoons weaken the diversity of platform content to a certain extent, which can undermine users' willingness to make long-term choices about the platform. Therefore, it is necessary to try to break through the information cocoon, which is the research motivation of this paper. The following will explain the research background of this study from two aspects: the evolution of the concept of information cocoons and the current research status of "breaking through information cocoons."

The concept of an information cocoon room originated from the "Echo Room" effect first proposed in The Times literary supplement in 1980. However, specific research and explanation have yet to be made. The real prototype of the information cocoon room can be traced back to the "network Balkanization" proposed by Marshall and Eric, professors of Massachusetts Institute of Technology in 1997, which means that the network has been divided into various groups with different interests and members of a subgroup almost always use the Internet to spread or read information or materials that can only attract other members of the subgroup. These small groups that split apart are as complex and volatile as the situation in the Balkan Peninsula [2]. Later, the foreign media environmental school "Technological determinism," existentialism philosophy, and Totalitarianism thought of contemporary developed Industrial society all discussed the subject of the subjective competition between technology and people. In 2006, Kessanstein explicitly proposed in his book "Information Utopia" that information cocoon is due to people's demand for information often being personalized rather than comprehensive, and users often choose to access media information based on personal preferences. Over time, they will confine themselves to a cocoon like a cocoon room [3]. Since then, most research has been based on this concept. In 2009, Cheng Shi'an and Shen Enshao explained and reconstructed the relevant theories of organizational Communication studies from the perspective of scientific and technological progress and the evolution of communication laws, combined with the phenomenon of information convergence and information cocoon room in the digital era, and opened the domestic research on information cocoon room. Subsequently, concepts such as filtering bubbles also supplemented and confirmed the concept of information cocoons, and experts from multiple fields also interpreted and analyzed the concept of information cocoons from different perspectives [4]. To some extent, the information cocoon is also a derivative product of the internet content production process. The retention of attention by internet users when browsing platform content generates many benefits and be socialized into the internet phenomenon of the information cocoon.

In recent years, the number of literatures on information cocoon research targeting Weibo, a social platform that can be retrieved from online literature databases, has gradually increased, but it still needs improvement. In China, there are mainly Yang Qingbo and Huang Yingsin's "Narrow Analysis of Network Information in the Era of Micro communication," Yang Hui's "Research on the" Information Cocoon Room "Effect of Weibo," and Tao Kaili's "Causes of the" Information Cocoon Room "Effect and Cocoon Breaking Strategies" of Xi'an Shiyou University. Chen Xing's "Research on the Phenomenon of 'Information Narrowing' in Weibos - Taking Sina Weibo as an Example" explores the impact of new media technology on people and society from the perspective of individual users, focusing on the characteristics and essence of information narrowing in Weibos, as well as the causes of information narrowing in Weibos.

The existing research mentioned above mainly elaborates on how information cocoons are formed, the impact of the cocoons, and specific strategies for breaking through cocoons. In the article named" Research on the Phenomenon and Breakthrough Strategies of the Information Cocoon Room on New Media Social Platforms Based on User Information Behavior," the author analyzes what may affect the "Information Cocoon Room" from the perspective of user behavior in new media social platforms, using correlation analysis and regression analysis to quantitatively examine the multiple influencing factors of the "information cocoon" phenomenon in modern

DOI: 10.54254/2753-7064/12/20230106

media social platforms "Research on the "information cocoon" phenomenon and its breaking strategy in modern media social platforms on account of user information behavior. The research on the phenomenon of information cocoons on modern social apps based on user information choice and its cocoon-breaking strategies has inspired the ideas of this paper.

As a social media with daily activity of up to 200 million, Weibo has high research value. Each Opinion leader on Weibo makes Weibo users form a high degree of crowding, which also leads to the continuous reinforcement of the information cocoon room under the platform's algorithm mechanism. Therefore, Weibo was chosen as the research sample for this study. This paper investigates the user behavior of new media social platforms, using the Weibo platform as the application scenario, and combine user behavior characteristics with exploring the key factors that affect perception and break through the "information cocoon room," and provide suggestions on how to break through the "information cocoon room." This study used a questionnaire survey method, setting up questionnaires from four dimensions: individual users, platforms, policies, and group effects. Random sampling was used to distribute questionnaires online and collect user preferences for using social platforms. Finally, multiple linear regression analysis was used to analyze the influencing factors of Weibo users' perception of information cocoons and breaking through information cocoons. The conclusion is that the diversity of social platform choices and information encounters influence users' perception of information cocoons; Information encounters, policies, and the complexity of online information influence Weibo users to break through the information cocoon.

2. Method

2.1. Theoretical Basis and Research Hypotheses

The Uses and gratifications theory proposes from the audience's perspective that the audience has a proactive attitude and will actively choose to use different media and media content rather than fully accepting it [5]. Based on this, this study assumes that Weibo users may also perceive the existence of information cocoons and actively make breakthroughs.

According to related existing studies, many scholars have proposed factors that affect perception and breaking through the information cocoon from different perspectives. For example, some scholars proposed the impact of selective exposure, information encounter, and subjective norms on breaking out of the information cocoon from the perspective of intangible cultural heritage [6]. Besides, from the perspective of studying the information cocoon level, someone proposed that the influencing factors include algorithm recommendation technology, interactive page design, user information literacy, and so on [7].

Based on previous articles and the particularity of the Weibo platform, this study ultimately identified a total of 9 possible influencing factors: Selective exposure, Information encounter, User information literacy, Platform choice diversity, Diversity of interest, Platform technology, The complexity of online information, and Policy and Group effect.

For users' understanding of the information cocoon, this article should include the perception information cocoon and the breaking through the information cocoon. The former is at the cognitive level, the latter is at the behavioral level, and the latter is also the critical point of this research. Therefore, the dependent variables are set as perception information cocoon and breaking through the information cocoon.

Based on nine independent and two dependent variables, this article proposes 18 research hypotheses. This study will explain research hypotheses from four dimensions: individual users, platforms, policies, and group effects.

DOI: 10.54254/2753-7064/12/20230106

2.2. Individual Users

Individual users are the recipients of information on social media platforms and are the group most likely to fall into the dilemma of an information cocoon. However, at the same time, users also have a certain degree of initiative and will only partially passively accept information. They will have active choices, which is selective exposure.

The more precise information the platform is in push, the more users need to make choices, as ordinary people find it difficult to process a large amount of information simultaneously. At the same time, selective exposure is only a priority processing method, which does not mean that other information may be ignored [8]. While actively selecting, users will also notice a large amount of other information, whether homogeneous or diverse. Driven by initiative, users are likely to perceive and break through the information cocoon because of homogeneous information. Users will realize this is a large amount of homogeneous information, making selecting high-quality content challenging. However, with diversified information, users can perceive more diverse fields; then, they will develop new points of interest and break through the existing information cocoon. Based on this, the hypothesis is proposed:

H1: Selective exposure has a positive impact on the perception information cocoon.

H2: Selective exposure has a positive impact on breaking through the information cocoon.

Information encounter refers to users' accidental discovery of information while using the platform, which is a passive acquisition perspective. The platform sometimes provides other types of information while using intelligent algorithms to recommend users information that they are interested in [6]. As this information increases, users are more likely to encounter it and perceive that their original information acquisition is in an information cocoon, thus achieving breakthroughs. Based on this, the hypothesis is proposed:

H3: Information encounter has a positive impact on the perception of information cocoon.

H4: Information encounter has a positive impact on breaking through the information cocoon.

User information literacy refers to their understanding of network technology and related mechanisms. Suppose users have a specific understanding of intelligent algorithm recommendation technology or some network impacts. In that case, they are more likely to perceive the existence of the information cocoon and then break through [7]. Based on this, the hypothesis is proposed:

H5: User information literacy has a positive impact on the perception of information cocoon.

H6: User information literacy has a positive impact on breaking through the information cocoon.

Because of the diverse choice of social platforms nowadays, each with a different direction and focus of different interests. People may gain more information from different aspects when using more social media platforms, thereby perceiving and breaking through the information cocoon. Based on this, the hypothesis is proposed:

H7: Platform choice diversity has a positive impact on the perception information cocoon.

H8: Platform choice diversity has a positive impact on breaking through the information cocoon.

The wider an individual's interests and followed, the more diverse their focus areas become, making it less likely to fall into a single information cocoon and easier to perceive and break through it [9]. Based on this, the hypothesis is proposed:

H9: Diversity of interest has a positive impact on the perception of information cocoon.

H10: Diversity of interest has a positive impact on breaking through the information cocoon.

2.3. Platforms

The platform is one of the leading roles in building the phenomenon of information cocoons, responsible for providing information. To keep users and provide them with a better user experience, the platform has developed algorithmic recommendation technology to provide precise

DOI: 10.54254/2753-7064/12/20230106

recommendations to users. The more advanced the recommendation technology, the more likely it is to be aware of the information cocoon problem and occasionally recommend other diverse information to users. In addition, a friendly interactive interface design also helps users search for diverse information, helping them perceive and break through the information cocoon [7]. Moreover, a special hot search section on Weibo platforms allows users to access crucial daily information in various fields, which helps users break out of their narrow areas of interest. All of these belong to the platform's technical development and design part. Therefore, the hypothesis is proposed:

H11: Platform technology has a positive impact on the perception of information cocoon.

H12: Platform technology has a positive impact on breaking through the information cocoon.

In addition to the technical aspect, the type of content provided by the platform is also essential. The broader and more diverse the fields involved in Weibo, the more complex and diverse the information provided. Users are more likely to receive diverse information, perceive the information cocoon, and make breakthroughs [10]. Therefore, the hypothesis is proposed:

H13: The complexity of online information has a positive impact on the perception of information cocoon.

H14: The complexity of online information has a positive impact on breaking through the information cocoon.

2.4. Policies

The formulation and guidance of government policies related to algorithm recommendation technology and the regulation of online platforms are conducive to making people aware of the existence and impact of information cocoons [11]. At the same time, promoting and guiding mainstream values on topics may also help people focus on areas beyond their interests and help them break through the information cocoon. Therefore, the hypothesis is proposed:

H15: Policy has a positive impact on perception information cocoon.

H16: Policy has a positive impact on breaking through the information cocoon.

2.5. Group Effects

People are social animals and often belong to different groups. It is difficult for people to keep themselves away from the influence of the group, so when people from the same group focus on new areas of interest, it is also likely to have an impact on others.

In addition, the influence of opinion leaders cannot be ignored. People are more willing to trust reputable and reliable opinion leaders and listen to their opinions. During this process, people's interests may change involuntarily. For example, when a blogger on Weibo who has millions of followers recommend a new product, most fans will also want to try it because of trust. This helps users perceive and break through the information cocoon. Therefore, the hypothesis is proposed:

H17: Group effect has a positive impact on perception information cocoon.

H18: Group effect has a positive impact on breaking through the information cocoon.

3. Variable Measurement and Questionnaire Design

According to the above description, nine variables affect this paper's perception and breakthrough of information cocoons. To measure these variables, this paper designs a scale using mature scales from previous research for reference and based on the actual situation of Weibo platforms and users.

Selective exposure variables are measured by selecting information from interested and uninterested perspectives. Information encounter variables are measured from two levels: see the title and read the content. The user's education level measures the user information literacy variable.

DOI: 10.54254/2753-7064/12/20230106

The Platform choice diversity is measured by the user's usage habits and comprehensive understanding of content. In contrast, the diversity of interests is measured from the user's perspective, focusing on whether they have diverse interests and the trend of their interest changes. Platform technology mainly includes measuring algorithm recommendation technology, page design, and functional design. The complexity of online information is mainly measured based on the user's subjective feelings; Policy variables are mainly measured by the popularity of policies and the influence of mainstream values. The last group effect is measured from the perspectives of interest circles and opinion leaders. The dependent variable perception information cocoon is measured by whether users have perceived content homogenization, and breaking through the information cocoon is measured by whether they want to seek new types of information.

The above variables are measured with the Likert scale, and the options are set in 4 different degrees, scoring from 4 to 1.

The overall questionnaire consists of three parts. The first part is a screening question, which screens out respondents who do not use Weibo to ensure that the research object is the Weibo user group. The second part is a scale question that measures the independent and dependent variables. The last part is personal information, including the interviewee's gender, age, and education level, to understand the sample characteristics. In addition, putting personal information at the end also helps to eliminate the impact of personal psychological expectations.

4. Result and Discussion

4.1. Data Collection and Sample Characteristics

After completing the questionnaire, the paper used a non-random sampling method to distribute the QR code and questionnaire link online through social media platforms such as WeChat and Weibo. A total of 292 questionnaires were ultimately collected. After excluding answers such as unused Weibo 、 incorrect answers to lie test questions 、 short answer times, a total of 195 valid questionnaires were collected. The demographic information of the survey sample is shown in Table 1.

Table 1: The demographic information of the survey sample.

	Statistic variable	Frequency	Percent	Mean	Std. Deviation
Gender	Male	80	41%	1.59	0.503
	Female	114	58.50%		
	Other	1	0.50%		
Age	Under 24	70	35.90%	1.97	0.919
	24-30	76	39%		
	30-45	34	17.40%		
	Over 45	15	7.70%		
Education	High school degree or less	17	8.70%	2.79	0.830
	Junior college	40	20.50%		
	Bachelor degree	104	53.30%		
	Master degree or above	34	17.40%		

DOI: 10.54254/2753-7064/12/20230106

4.2. Reliability and Validity Analysis

Reliability is mainly used to measure survey results' consistency, reliability, and stability. Cronbach's Alpha value measures this questionnaire. The higher the Cronbach's Alpha value, the better the reliability of the questionnaire. Table 2 shows that the Cronbach's Alpha value of the whole questionnaire is 0.791, greater than 0.7. It is proved that the reliability of the measurement results is high, and it can meet the requirements of this study.

Table 2: Reliability.

Statistics.	
Cronbach's Alpha	N of Items
.791	18

Validity is used to measure the accuracy of the results. General studies require KMO values greater than 0.6 to extract common factors. Table 3 shows that the KMO value of this questionnaire is 0.861, more significant than 0.8, which is suitable for factor analysis. Bartlett's Test of Sphericity is commonly used to evaluate the correlation between test items in the scale. Its significance should be less than 0.05, and the significance in the sample is 0.000, indicating a strong correlation between various factors about the information cocoon.

Table 3: KMO and bartlett test of sphericity.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.861
Bartlett's Test of Sphericity	Approx. Chi-Square	806.588
	df	153
	Sig.	.000

4.3. Correlation and Regression Analysis

Based on the model's excellent reliability and validity results, correlation analysis and regression analysis are carried out to test whether the research hypothesis is valid. Table 4 shows the correlation analysis of the results. Preliminary analysis shows that except for hypotheses H5, H6, and H8, the other 15 hypotheses are valid. The H2, H3, and H4 correlation coefficients are between 0.4 and 0.7, indicating a close relationship. The correlation coefficients of H7 and H13 are less than 0.2 but still show a significant relationship, indicating that the relationship is weak but still correlated, and H7 is a negative correlation. Hypotheses H5, H6, and H8 were excluded, and regression analysis was performed on other hypotheses. The results of the regression analysis are shown in Table 5 and Table 6. In Table 4, Table 5, and Table 6, Y1 stands for perception information cocoon, and Y2 stands for breakthrough information cocoon.

DOI: 10.54254/2753-7064/12/20230106

Table 4: Correlations analysis.

Hypothesis	Independent variable→ Dependent variable	Pearson Correlation	Sig. (2-tailed)
H1	Selective exposure→Y1	.367**	.000
H2	Selective exposure→Y2	.444**	.000
H3	Information encounter→Y1	.401**	.000
H4	Information encounter→Y2	.538**	.000
H5	User information literacy→Y1	.057	.428
H6	User information literacy→Y2	.054	.452
H7	Platform choice diversity→Y1	-.164*	.022
H8	Platform choice diversity→Y2	-.087	.228
H9	Diversity of interest→Y1	.278**	.000
H10	Diversity of interest→Y2	.273**	.000
H11	Platform technology→Y1	.339**	.000
H12	Platform technology→Y2	.386**	.000
H13	The complexity of online information→ Y1	.171*	.017
H14	The complexity of online information→Y2	.339**	.000
H15	Policy→Y1	.311**	.000
H16	Policy→Y2	.395**	.000
H17	Group effect→Y1	.253**	.000
H18	Group effect→Y2	.240**	.001

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

This study uses multiple linear regression analysis to analyze the influencing factors of Weibo users' perception of information cocoon and breaking through information cocoon. Tables 5 and 6 focus on the influence relationship between the final model and the variables. The diversity of social platform choices and information encounters influence users' perception of an information cocoon. Information encounters, policy, and the complexity of online information are the factors that influence users to break through the information cocoon.

The diversity of social platform choices is an influential factor affecting Weibo users' perception of an information cocoon. The results of regression analysis show that there is a positive relationship between the two. When users actively choose to use other platforms in the process of using Weibo, they can perceive more information cocoons in Weibo. This is because different social platforms have different primary communication forms and focus. When users browse information across platforms, they are more likely to access fresh, rich, and diversified information, while Weibo provides users with a relatively single browsing experience. It is easier for users to realize that they are receiving more "homogenized" information, so it is easier to perceive the existence of a Weibo information cocoon.

Information encounters affect Weibo users' perception of the information cocoon. According to the analysis results, both also present a positive influence relationship. The more frequently users encounter information when using Weibo, the more they can perceive the information cocoon. The sudden appearance of topics that users do not often browse will make them feel the difference from

DOI: 10.54254/2753-7064/12/20230106

the usual relatively simple information environment, and the formation of this difference makes users aware of the topic of attention outside the circle and thus perceive the information cocoon.

Table 5: Regression analysis of perception information cocoon.

Hypothesis	Independent variable→ Dependent variable	B	t	P
H1	Selective exposure→Y1	0.126	1.008	0.315
H3	Information encounter→Y1	0.272	2.654	0.009***
H7	Platform choice diversity→ Y1	-0.222	-2.445	0.015**
H9	Diversity of interest→Y1	0.096	1.368	0.173
H11	Platform technology→Y1	0.19	1.562	0.120
H13	The complexity of online information→ Y1	-0.005	-0.064	0.949
H15	Policy→Y1	0.189	1.669	0.097*
H17	Group effect→Y1	0.056	0.602	0.548

Note：***、**、*represent significance levels of 1%, 5%, and 10% respectively.

Similarly, information encounter is an influential factor affecting Weibo users to break the information cocoon. The analysis results show that information encounter is the most significant influencing factor for Weibo users to break the information cocoon, and the two have a positive relationship. While browsing the information, Weibo users come across topics they have not paid attention to, and users are driven by curiosity to click and browse to break the information cocoon.

Table 6: Regression analysis of breaking through the information cocoon.

Hypothesis	Independent variable→ Dependent variable	B	t	P
H2	Selective exposure→Y2	0.213	1.814	0.071*
H4	Information encounter→Y2	0.468	4.861	0.000***
H10	Diversity of interest→Y2	0.015	0.228	0.820
H12	Platform technology→Y2	0.193	1.706	0.090*
H14	The complexity of online information→Y2	0.174	2.565	0.011**
H16	Policy→Y2	0.269	2.536	0.012**
H18	Group effect→Y2	-0.128	-1.502	0.135

Note：***、**、*represent significance levels of 1%, 5%, and 10% respectively.

The policy is one factor that influences Weibo users to break the cocoon of information. Due to the large number of Weibo users and serious entertainment, the policy requires the revision of hot search, setting topics such as people's livelihood and current affairs to "drop hot search," pushing

DOI: 10.54254/2753-7064/12/20230106

issues with news value, and broadening the user's vision. Users click to browse the hot search list and related micro-blogs to break through the information cocoon.

The complexity of online information also affects Weibo users' ability to break through their information cocoon. Online information is diversified because of the wide range and large volume of information on Weibo. When using Weibo, some users browse a wide range of diverse information to break through the information cocoon.

4.4. Discussion

Taking the Weibo platform as an example, this study explores perceiving and breaking through the information cocoon and its influencing factors through four dimensions: user personal dimension, social platform dimension, group effect dimension, and government policy dimension. This paper aims to break through the cocoon of Weibo information dissemination, let users contact a more diversified information flow, and avoid users falling into the information effect of circle and homogenization.

Users should adhere to the spirit of openness, avoid relying on Weibo platforms, brave out of the limitations of the information cocoon, and expand the scope of information acquisition [12]. Choose multiple platforms for information acquisition, explore new directions of interest, accept information from different perspectives and concepts, and avoid narrowing the information received. Multiple platform selection can cultivate users' overall awareness and personal social communication literacy, break out of the "circle" formed by the platform, and step out of the information cocoon.

Weibo platforms must adjust the adaptive algorithm mechanism, and push information should have conditions combining commonality and individuality [13]. Big data unthinkingly recommends homogeneous information, which can cause users to be trapped in an information cocoon. At the same time, it is easy for users to feel bored with a large amount of single information, resulting in a psychological perception that Weibo only provides the same type of information. Therefore, while recommending information that users are interested in, it is important to continuously push out areas and topics that users have yet to follow to generate new interest. This is beneficial for expanding users' personal network knowledge and promoting the sustainable development of the Weibo platform. At the same time, the platform should establish a public area and exchange center for Weibo, forming a public channel for information dissemination, covering a large volume and scope of information, and enhancing the opportunities for Weibo users to encounter information [12].

In addition, we need to pay attention to the cultivation of opinion leaders. Individual users with leadership and influence on Weibo have many likes, comments, and reposts, and their thoughts, opinions, and behaviors have attracted widespread attention. In order to avoid the formation of information cocoons caused by group polarization, they should regulate their speech, adhere to the code of conduct of fairness and morality, and publish objective and diversified information to let more voices be heard by those who follow them [13].

The government should issue relevant laws and public policies, formulate operation norms of algorithms, and standardize the review of recommended content on Weibo. Regulating hot search and push to make its content conform to social values, avoid information pan-entertainment, and monitor the platform to make it a fair and healthy value orientation, which is conducive to forming a good communication environment and shaping the user's perspective.

Breaking through the information cocoon requires multidimensional efforts and changes. The rational thinking of users, jumping out of the information circle, the diversified push of the platform, the benign guidance of opinion leaders, and the regulation and supervision of the government all

DOI: 10.54254/2753-7064/12/20230106

develop together and complement each other to provide a favorable guarantee for people to recognize and break the information cocoon.

5. Conclusion

This paper adopts a questionnaire survey method, setting up questionnaires from four dimensions: individual users, platforms, policies, and group effects. The questionnaire is distributed online using a random sampling method to collect users' preferences for using social platforms. Finally, multiple linear regression analysis is used to analyze the influencing factors of Weibo users' perception of information cocoons and breaking through information cocoons. The conclusion is that the diversity of social platform choices and the more information encounters, the easier it is for users to perceive the information cocoon; The more frequent information encounters and policy interference, the higher the complexity of online information, and the easier it is for users to break through the information cocoon. Therefore, users can choose multiple information acquisition platforms, try to actively engage in more complex information encounters, cultivate their diverse interests, and gradually break the information cocoon.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

References

[1] *Peng Lan,Imagery, Algorithm Prisoners, and Rights Transfer: New Risks in the Era of Data and Algorithms[J].Journal of northwest normal university(social science),2018,No.5(05):25*

[2] *ALSTYNE M V,BRYNJOLFSSONE.Electronic communities:global village or cyber Balkans? [EB / OL].2021.*

[3] *Keith Sanstein. Information Utopia - How People Produce Knowledge [M]. Translated by Bi Jingyue. Beijing: Law Press, 2008.*

[4] *ROWLANDF.The filter bubble: what the internet is hiding from you[J].Portal-libraries and the academy,2011,11 (4) : 1009-1011.*

[5] *ELIHU KATZ. The Uses of Mass Communications,1974.*

[6] *Shanshan Zhai , Pan Hu, Xuan Wu, et al. Research on the phenomenon of information cocoons on new media social platforms based on user information behavior and its breaking strategies: Taking the dissemination of intangible cultural heritage short videos as an example [J]. Intelligence Science, 2021,39 (10): 118-125. DOI: 10.13833/j.issn.1007-7634.2021.10.016*

[7] *Yicheng Wang, Ping Wang, Meiyue Wang . A Study on the Identification of Sensitive Factors in the Hierarchy of Network Information Cocoon Based on SVM [J]. Intelligence Data Work, 2019,40 (06):.*

[8] *Meirick P C , Bessarabova E . Epistemic Factors in Selective Exposure and Political Misperceptions on the Right and Left[J]. Analyses of Social Issues and Public Policy, 2016, 16(1).90-97.*

[9] *Xue Lu, Lei Sun , Yimin Zheng. Research on the "information cocoon" effect and influencing factors of Weibo users [J]. China Market, 2022, No.1115 (16): 191-193. DOI: 10.13939/j.cnki.zgsc.2022.16.191*

[10] *Tianyu Zhang, Jiawen Gao. How to break the information cocoon room of college students in the era of fragmentation reading—— From the perspective of customized user information based on Zhihu [J]. Sound Screen World, 2022, No.504 (01): 101-103.*

[11] *Guodong Yang .How Media Breaks Through the Communication Barrier of "Information Cocoon Room" in the New Media Era [J]. Western Radio and Television, 2022,43 (17): 50-52.*

[12] *Zhu Xu. The Information Cocoon Effect of Weibo and Its Reflection [J]. News Enthusiasts,2018(08):55-58.DOI:10.16017/j.cnki.xwahz.2018.08.015.*

[13] *Kaili Tao. The Causes and Breakthrough Strategies of the "Information Cocoon Room" Effect on Weibo [J]. Enterprise Reform and Management, 2021, No.392 (03): 80-81. DOI: 10.13768/j.cnki.cn11-3793/f.2021.0141.*