

Characteristics and Evolution of Online Information Behavior of Migrant Workers in New-Type Urbanization Development: A Postprint

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Abstract

[Purpose/Significance] In the process of accelerating China's new urbanization strategy, analyzing the characteristics and evolution of information behaviors among migrant worker groups is of great significance for achieving targeted information poverty alleviation and analyzing the information needs of migrant workers in the new urbanization process. [Method/Process] Based on defining migrant workers, this study utilizes Python and XPath, leverages migrant worker data from Baidu Tieba, employs the Jieba library for word segmentation, and conducts visual analysis of the data across temporal and content dimensions to examine the characteristics and evolutionary patterns of online information behaviors within migrant worker groups. [Results/Conclusion] The findings reveal that during China's new urbanization process, the degree of content alienation in migrant workers' online information-seeking behavior continues to deepen while their demand levels continuously increase; the temporal characteristics of online information publishing behavior exhibit policy orientation, with government policies such as urbanization strategies, support for migrant workers returning to their hometowns, and protection of migrant workers' rights exerting significant influence on the evolution of farmers' information behavior; and the thematic characteristics of online information sharing behavior demonstrate diversification.

Full Text

Research on the Characteristics and Evolution of Online Information Behavior of Migrant Workers in the Development of New-Type Urbanization

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Abstract

[Purpose/Significance] As China accelerates its new-type urbanization strategy, analyzing the information behavior characteristics and evolution of the migrant worker population is crucial for achieving targeted information-based poverty alleviation and understanding the information needs of migrant workers during urbanization. **[Method/Process]** Building upon a definition of migrant workers, this study employs Python and XPath, combined with data from Baidu Tieba's migrant worker community, utilizing the Jieba library for word segmentation and conducting visualization research across temporal and content dimensions to analyze the online information behavior characteristics and evolutionary patterns of this group. **[Result/Conclusion]** The findings reveal that during China's new-type urbanization process, the alienation degree of content in migrant workers' online information acquisition behavior continues to deepen, with demand levels continuously rising. The temporal characteristics of online information publishing behavior demonstrate policy orientation, as government policies on urbanization strategies, support for migrant workers returning to their hometowns, and protection of migrant workers' rights have significantly influenced the evolution of their information behavior. The thematic characteristics of online information sharing behavior exhibit diversification.

Keywords: new-type urbanization; migrant workers; information behavior; characteristics; evolution

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According to the latest statistics released by the National Bureau of Statistics on February 28, 2019, China's urban population accounted for 59.58% of the total population in 2018, with the rural permanent population decreasing by 12.6 million compared to the end of 2017. The total number of migrant workers nationwide reached 288.36 million, an increase of 1.84 million or 0.6% from the previous year. Among them, local migrant workers numbered 115.7 million (growth of 0.9%), while outgoing migrant workers totaled 172.66 million (growth of 0.5%) [1]. The "2018 Migrant Worker Monitoring Survey Report" released by the National Bureau of Statistics in April 2019 shows that the majority of migrant workers are new-generation workers born in 1980 and later, accounting for 51.5% of the total migrant worker population. Migrant workers with college degrees or above represent 10.9% of the total, and 92.1% of migrant workers in cities have internet access [2]. With the rapid development of the internet and the advancement of the new-type urbanization strategy, migrant workers, as a bridge connecting urban and rural dual structures, have become a new consumer group in China's information economy due to their continuously improving information consumption capabilities, making their online information

behavior a new concern for both industry and academia.

Existing research shows that with the advancement of rural revitalization in China, the analysis of migrant workers' information demand characteristics has become an emerging issue of domestic concern in recent years. However, current domestic and international research primarily focuses on information needs and acquisition channels of this special group, with relatively few studies examining the characteristics and evolutionary patterns of migrant workers' online information behavior within the context of China's new-type urbanization development. This paper attempts to address three questions: First, through public data mining, what are the content evolution characteristics and information demand evolution features of migrant workers' online information acquisition behavior during new-type urbanization? Second, what are the temporal characteristics of migrant workers' online information publishing behavior, and what evolutionary patterns emerge with China's new-type urbanization development? Third, can we analyze the evolutionary patterns of thematic characteristics in migrant workers' information sharing behavior from historical panel data, and do these thematic characteristics reflect changes in the living conditions and thoughts of migrant workers during rural revitalization? By collecting public data from Baidu Tieba's "Migrant Workers Bar" and analyzing user posts, posting times, and reply themes, this study examines the characteristics and patterns of migrant workers' online information acquisition, publishing, and sharing behaviors during China's new-type urbanization process, providing insights to improve information services for migrant workers and promote new-type urbanization development.

2. Related Research

2.1 Definition of Migrant Workers

The concept of "migrant workers" was first proposed in 1983 to describe groups engaged in industrial occupations but holding rural household registration. In June 1984, the term first appeared in the "Sociology Newsletter" published by the Chinese Academy of Social Sciences. After the report of the 16th National Congress of the Communist Party of China in November 2002 proposed "following a path of urbanization with Chinese characteristics," this group received widespread attention. Scholars have defined migrant workers from various perspectives. Zhou Daming argues that the key to defining migrant workers lies in their rural household registration, status as both farmers and workers who have left their original locations, and engagement in non-agricultural production activities [8]. Lu Haiyuan defines migrant workers as those who possess rights to rural land, rely on urban work as their primary source of livelihood, and hold non-urban resident status [9]. Zou Xiaomei considers migrant workers as a specific group that retains rural household registration but spends most of their time not engaged in agricultural production, instead making a living by working in cities [10].

Based on a review of relevant research and considering the characteristics of migrant worker groups during China's new-type urbanization development, this paper defines "migrant workers" as: a floating population formed during China's new-type urbanization development process due to regional economic imbalances, education-seeking, entrepreneurship, and other reasons. They possess dual identities as both farmers and workers, hold rural land contract and management rights, rely primarily on urban employment for their livelihood, exhibit mobility in their work and life, and are mainly engaged in secondary and tertiary industries.

2.2 Online Information Behavior of Migrant Workers

Information behavior refers to the process of identifying, searching, using, and sharing information from newspapers, television, the internet, and other sources through cultural and social means, generally comprising three components: information seeking, information use, and information sharing [11]. Foreign scholar T.D. Wilson considers information behavior as actions related to information channels and resources undertaken by users based on certain information needs [12]. A. Spink et al. established an information behavior framework including four processes: information seeking, information foraging, information sharing, and information use [13]. K.E. Pettigrew et al. define information behavior as the sum of users' needs, searches, provision, and utilization of information in different contexts [14]. Domestically, Professor Hu Changping's perspective is widely accepted: information behavior is the behavior exhibited by subjects to satisfy specific information needs under external stimuli, including information acquisition, searching, communication, dissemination, and utilization [15].

Based on the above scholars' perspectives and considering this study's objectives and the characteristics of the research population, this paper defines migrant workers' online information behavior as: under the stimulation of external environmental conditions and self-development, migrant workers use the internet, mobile internet, and mobile terminals to satisfy their information needs through information acquisition, publishing, and sharing behaviors.

2.3 Characteristics of Migrant Workers' Online Information Behavior in New-Type Urbanization Development

In December 2013, the Central Urbanization Work Conference analyzed China's urbanization development situation, discussed the "National New-Type Urbanization Plan," and proposed strategic arrangements for promoting new-type urbanization, explicitly forming a new urbanization pattern with integrated and networked development of basic public services and infrastructure. The "Guiding Opinions on Further Expanding and Upgrading Information Consumption to Continuously Release Domestic Demand Potential" issued by the State Council in August 2017 clearly stated: "Further expand and upgrade information consumption, carry out publicity and guidance activities through various means, and popularize knowledge of information application, online payment, and risk

identification for various consumer groups, especially those with relatively weak information knowledge. Support enterprises in promoting economical and applicable information terminal equipment such as smartphones and digital televisions for low-income groups, and recommend mobile applications and smart terminals suitable for rural and remote areas.”

As the main subjects of the new-type urbanization strategy, migrant workers face a massive online information environment. Understanding how this group uses the internet, mobile internet, and smart terminals to acquire, publish, and share information to meet their needs in job-seeking, training, rights protection, social interaction, returning home for entrepreneurship, and urban integration—and how they improve their information literacy to ultimately complete the social transformation into “new farmers” during new-type urbanization—requires analyzing and understanding the content characteristics, temporal patterns, and thematic features of their online information publishing and sharing behaviors, as well as their evolution. This analysis can provide more targeted online information services for migrant workers and address the “digital poverty alleviation” issue in China’s new-type urbanization development process.

3. Research Design

3.1 Data Source Selection

Since its establishment on November 26, 2003, Baidu Tieba has attracted large groups with common interests based on search engines, becoming the world’s largest Chinese-language communication community. According to the “2018 Global Digital Report” released by social media communication company Wearesocial, by December 2018, Baidu Tieba had over 1 billion registered users and 300 million active online users [16]. The “2018 China Mobile Internet User Behavior Insight Report” jointly released by InMobi and AdMaster indicates that Baidu Tieba ranks first in industry penetration among interest-based apps [17]. According to the China Unicom Big Data Wo Index mobile app ranking, as of March 2019, Baidu Tieba ranked second in the community forum category. Baidu Tieba’s user groups and text information contain enormous mining value, with an open information environment, diverse communication methods, and innovative forum functions that provide favorable conditions for users’ information acquisition and offer a large number of reliable and objective samples for studying users’ online information behavior.

The “Migrant Workers Bar” in Baidu Tieba serves as the most active online community platform for migrant workers in China. Created in February 2013, it has 17,745 followers and 10,224 discussion topics, with its closed nature ensuring in-depth communication among migrant worker groups. Baidu Tieba leverages its reputation in search engines to provide migrant workers with convenient access to similar users. The temporal sequence characteristics of Baidu Tieba data provide a reliable data source for analyzing the evolution of migrant workers’ information behavior characteristics. Therefore, this paper selects Baidu Tieba

as the data source for collecting migrant workers' online information behavior, using phased panel data to present and analyze the characteristics and evolution of migrant workers' online information behavior during China's new-type urbanization development.

3.2 Data Collection

This study combines Python with XPath (XML Path Language), using Google Chrome's developer tools to inspect elements, copy the XPath of selected elements on URL pages to obtain text information and paths, and employs the get method in URLs to loop through different page numbers, enabling massive data crawling from migrant workers' posts. The collected data is stored in a PostgreSQL database. The data includes both forum information and user posting information. Forum information comprises the forum name, homepage URL address, topic type, number of followers (members), total number of posts, forum slogan, forum directory, and names of affiliated forums. User posting information includes post titles, post and reply content, post homepage URL addresses, post creation times, number of replies, forum names, poster nicknames, poster homepage URLs, and poster levels.

3.3 Data Cleaning

This study collected sample data spanning six years from February 1, 2013, to February 1, 2019, totaling 87,320 entries. To ensure objectivity and representativeness, the data underwent cleaning, including detecting and processing duplicate values, missing values, and outliers. During the cleaning process, the Pandas data analysis package in Python was used. Duplicate values include record duplication and feature duplication. Record duplication was removed using the unique characteristics of list and set elements, while feature duplication utilized Pandas' similarity calculation method corr to remove data with feature similarity of 1. For incomplete data (missing values), manual filling was employed. For outliers, regular expressions were used to eliminate spaces, images, and emojis in post content, while advertisements, videos, and other special information were filtered through exception capture methods. After cleaning, 55,450 valid data entries were obtained.

3.4 Data Processing

The data processing steps in this study are as follows: First, the crawled post and reply content information was categorized and segmented. The Jieba library in Python was used for word segmentation. For proper nouns, the vocabulary library was manually updated, initial values were set for each keyword, and the frequency of each keyword was calculated through loops and output to the console. Second, the IBM SPSS Modeler's TextAnalytics Module was used to classify the content collected from Baidu Tieba's "Migrant Workers Bar," extract keywords, and determine the proportion of each content category. The CategoryWeb function was then used to visualize the relationships between

topics, providing a better understanding of the interrelationships among data classification results. Third, migrant worker posting information was statistically analyzed based on date, time, and word frequency, with dates categorized by year, month, and weekday; time categorized in two-hour intervals; and word frequency classified by year and interaction information to analyze the characteristics and evolution of migrant workers' online information behavior.

4. Data Analysis Results

4.1 Analysis of Content Characteristics in Migrant Workers' Online Information Acquisition Behavior

By extracting post content information from the “Migrant Workers Bar” and using the TF-IDF statistical method to calculate TF-IDF values for each term, the top 200 terms with the highest TF-IDF values were selected to represent key hot words in the forum's information publishing behavior content characteristics. The analysis results are shown in Figure 1 [Figure 1: see original paper]. The data analysis indicates that the top four keywords by popularity are “migrant workers,” “work,” “wage demands,” and “making friends.” Migrant workers exhibit strong group label awareness in their posts. The frequency of “work” and “wage demands” is essentially the same after excluding the term “migrant workers” itself, indicating that during recent new-type urbanization development, many migrant workers have moved to cities for employment but face numerous difficulties in job-seeking and work processes, while also bearing life and social pressures such as wage arrears and lack of legal rights protection. Simultaneously, with the popularization of the internet, this group's social needs have become increasingly prominent, making “making friends” the fourth major posting theme. The frequency differences of other hot words are not significant, suggesting that the online information content of migrant worker groups remains relatively dispersed.

To analyze the evolution of information acquisition content at different stages, the above hot words were sorted and analyzed by posting time, revealing significant annual differences in the hot word content posted by migrant worker groups (see Figure 2 [Figure 2: see original paper]). The evolution of these annual hot words reflects the evolution of migrant workers' information acquisition needs during China's new-type urbanization development. In 2013, hot words such as “children,” “hope,” “WeChat,” “training,” “recruitment,” “safety,” “treatment,” and “work injury” appeared, reflecting migrant workers' concerns about employment, family, work, and their own future. In 2014, hot words like “high salary,” “going abroad,” “sincerity,” “rights protection,” “life and death,” “begging,” and “scammer” emerged, reflecting the dilemmas and helplessness migrant workers face after entering cities, along with their growing awareness of rights protection and demand for information on rights safeguarding, as well as their hopes of seeking better income by working abroad. From 2015 to 2016, hot words such as “government,” “protection,” “New Year,” and “returning home” appeared, showing that migrant workers recognize the government's important role in pro-

tecting their rights and their homesickness after working in cities. In 2017, hot words like “entrepreneurship” began to appear, indicating that the national “mass entrepreneurship” policy has brought new enthusiasm and opportunities for migrant workers returning to their hometowns to start businesses.

4.2 Analysis of Temporal Characteristics in Migrant Workers’ Online Information Publishing Behavior

Statistical analysis of posting volume in the “Migrant Workers Bar” was conducted by “weekday” and “hourly” time periods, with results shown in Figure 3 [Figure 3: see original paper]. The different colored areas represent posting volume from Monday to Sunday. The results show small fluctuations in daily posting volume, with no significant difference between weekend and weekday posting volumes. This is primarily because migrant workers are mostly engaged in secondary and tertiary industries with long working hours, typically resting only 2-3 days per month, with weekends usually being workdays. This reflects the work-life characteristics of migrant workers and the temporal distribution patterns of their information publishing behavior within a 24-hour period. Statistical analysis of posting volume reveals that peaks occur mainly in three key time periods: 9:00-10:00, 19:00-20:00, and 23:00-0:00. Due to the industry characteristics of migrant workers’ employment, 23:00-0:00 represents after-work rest time, 9:00-10:00 represents rest time before work, and 19:00-20:00 is dinner time. During these three periods, migrant workers have ample time and more active information publishing behavior, resulting in greater fluctuations compared to other periods, which show relatively average posting volumes, indicating that migrant workers’ online information publishing behavior is relatively concentrated in time.

Statistical analysis by month and year reveals posting patterns of migrant worker groups as China’s urbanization process advances, with results shown in Figure 4 [Figure 4: see original paper]. With the popularization of the internet and continuously decreasing smartphone internet costs, posting volume in the “Migrant Workers Bar” has shown a year-by-year increasing trend since 2013. Posting volume peaked in 2016 and 2017. Monthly statistics show that posting volume is typically concentrated in two periods: around the Spring Festival in January-February and during May-June, with posting peaks occurring in these timeframes. Statistical analysis of posting themes during these periods reveals that posts about job-seeking, recruitment, and salary account for 67.4% of total postings, indicating that migrant worker groups change jobs relatively frequently during these periods and have relatively greater information needs regarding employment.

Analysis of annual online information publishing behavior data shows that with the popularization of the internet and improvement of migrant workers’ information literacy, the overall number of posts has increased year by year. Posting themes have continuously evolved according to national policy guidance and changing societal concerns. The posting volume on the theme of “wage arrears”

was 486 in February 2013, peaked in March-April 2016, and then gradually declined to 302 by the end of 2018, indicating that wage arrears have consistently been a major concern for migrant worker groups. However, with the continuous introduction of various national policies, this issue has been effectively addressed, and its proportion in migrant workers' information publishing behavior has decreased annually. Additionally, posting volumes on themes such as "rights and interests protection," "social security," "returning home for entrepreneurship," and "legal aid" have shown fluctuating upward trends. While the differences in posting volume among these five categories were not significant in March-April 2013, by the end of 2018, "returning home for entrepreneurship" reached 648 posts, "legal aid" reached 613, "social security" reached 530, "rights and interests protection" reached 433, and "wage arrears" reached 302, reflecting that migrant workers' attention to national policies has increased year by year and that many policies issued by the government during the new-type urbanization development process have played important roles in guiding the development of migrant worker groups and promoting urbanization.

4.3 Analysis of Thematic Characteristics in Migrant Workers' Online Information Sharing Behavior

The thematic characteristics of migrant workers' online information sharing behavior are shown in Figure 5 [Figure 5: see original paper]. Based on the previously analyzed hot word frequencies, using user hierarchical relationships as unidirectional chains and shortest path methods for similarity between topics, the relationships among all topics are represented as a directed graph. Each dot in Figure 5 [Figure 5: see original paper] represents the number of posts on a topic, with dot size indicating post volume. Nodes distinguish posts on different topics, and connections between parent nodes (posters) and child nodes (repliers) represent reply behaviors to the same post. More connections indicate greater similarity in user interest regarding that topic. The data analysis results show that topics with higher information sharing are "job-seeking," "making friends," "government," "salary," "wage demands," "training," and "children's education." Among these, the reply rates and mutual attention among "job-seeking," "making friends," "government," and "salary" indicate that migrant workers' information sharing needs are relatively concentrated overall. The thematic characteristics of online information sharing reflect important transformations in how migrant worker groups solve daily work and life problems.

5. Discussion and Analysis

5.1 Patterns in Content Characteristics of Migrant Workers' Online Information Acquisition Behavior

The annual evolution data of hot words in migrant workers' online information acquisition behavior posts indicates that during the advancement of China's new-type urbanization strategy, the alienation degree of content in migrant workers' online information acquisition behavior continues to deepen, and the hierarchy

of their information acquisition needs continuously improves. Hot words have gradually evolved from “recruitment” and “wages” that satisfy physiological needs, to “rights” and “protection” that satisfy safety and emotional needs, and further to “WeChat groups,” “wage demand journeys,” and “entrepreneurship” that satisfy esteem and self-actualization needs. This aligns with the research findings of Wei Wei et al. [18]. As migrant workers move from rural areas to cities, their interaction with original social networks decreases, requiring time to adapt to and integrate into new environments, and they lack opportunities and venues for emotional expression. Consequently, “making friends” has become an important online information acquisition need for migrant workers, consistent with the research conclusions of Yan Xue et al. [19].

This characteristic of migrant workers’ online information acquisition behavior implies that when providing information services for this group, various information service institutions should establish dedicated information service platforms tailored to migrant workers’ different information acquisition needs to help them solve practical problems encountered in work and life. Simultaneously, specialized migrant worker service platforms should be established to collect relevant information about migrant workers, provide professional training for staff, and deliver personalized information services for various types of migrant workers. This approach can better satisfy migrant workers’ information acquisition needs, promote the overall quality improvement of migrant workers, and accelerate the pace of rural revitalization in China.

5.2 Patterns in Temporal Characteristics of Migrant Workers’ Online Information Publishing Behavior

The evolutionary patterns of migrant workers’ online information publishing behavior show that relevant posting behavior characteristics in the forum can, to some extent, reflect the evolution trajectory of migrant workers’ mentality and behavior under national policy guidance. Due to uneven urban-rural and regional economic development, migrant workers have exhibited behavioral evolution patterns of migrating from rural areas to cities and then returning home for entrepreneurship during China’s rapid urbanization development. Therefore, in development processes, they need to understand new living environments and solve series of problems related to housing, employment, training, rights protection, and citizenization. Data analysis of migrant workers’ online information behavior shows that according to “hourly” and “weekly” posting volume statistics, migrant workers’ online information behavior primarily demonstrates phased concentrated distribution within 24 hours, specifically in three time periods: 9:00-10:00, 19:00-20:00, and 23:00-0:00. This differs significantly from college students’ online information activity times of 12:00-13:00, 18:00-19:00, and 21:00-22:00 [20], but aligns with Liu Ruifang’s research findings on reading promotion services for new-generation migrant workers [21].

Long-term posting pattern analysis by month and year shows that when the government issues relevant documents on urbanization development strategies,

support for returning home for entrepreneurship, and protection of migrant workers' legitimate rights and interests, the forum's posting volume changes significantly, indicating that government policy guidance has a substantial impact on migrant workers' information publishing behavior. This is consistent with Wang Hanqing et al.'s research conclusions [22].

Given that migrant workers' online information publishing behavior demonstrates significant policy orientation, government websites should intensify publicity efforts for policies and regulations related to migrant workers, using images, short videos, and other formats that migrant workers can easily understand for promotion and interpretation, and conduct targeted push notifications according to migrant workers' information activity times. Public libraries and community platforms should provide online policy and regulation consultation and answering services for areas and groups where migrant workers are concentrated, helping migrant worker groups deeply understand policy information closely related to themselves and effectively solving practical difficulties of migrant workers in China's urbanization development process, thereby enhancing the implementation effects of national strategies such as rural revitalization and new-type urbanization.

5.3 Patterns in Thematic Characteristics of Migrant Workers' Online Information Sharing Behavior

In mobile social environments, users' posted, commented, and forwarded content is closely related to topics of personal interest, and topics shared by groups with similar interests also exhibit homogeneity. These users form virtual communities on the same topics during the information sharing process [23]. The data analysis results from Baidu Tieba's "Migrant Workers Bar" show that users pay high attention to topics closely related to their own work and life, such as "job-seeking," "making friends," "government," and "salary," and present diversified demands for shared information content. This aligns with the research conclusions of Geng Ruili et al. [24]. Users have different levels of demand for shared information, consistent with Yang Xuan's field research findings on Beijing-registered migrant workers that this group focuses on "must-know information" while paying little attention to "good-to-know information" and "need-not-be-informed information" [25].

During China's urbanization development process, migrant workers face employment and life problems that require integrated multi-source information resources. Due to their relatively low information awareness and information application and analysis capabilities [26], and inadequate rural information service supporting facilities [27], migrant workers' online information sharing behavior thematic characteristics show diversification compared to other groups. This result is consistent with Wu Shixian et al.'s research [28].

As China's industrial global value chain upgrades, the risk of involuntary unemployment for migrant workers increases [29]. With the advancement of new-type

urbanization and targeted poverty alleviation, modern vocational education for farmer groups has accelerated, and the state has introduced relevant policies encouraging recent rural high school graduates and migrant workers to apply [30]. Since migrant workers born in 1980 and later already account for 51.5% of the total, future themes such as “vocational education,” “elderly care,” and “medical care” will become new focal points for migrant worker groups in China’s new-type urbanization development. Therefore, government departments where migrant workers are employed can build integrated information service platforms linking local governments, employing enterprises, and communities to provide comprehensive information on recruitment, job-seeking, children’s education, rights protection, making friends, elderly care, and medical care for migrant workers within their jurisdictions by integrating diversified information channels and resources. Simultaneously, government or industry service agencies should improve migrant workers’ information integration capabilities through online training, emphasize the authenticity of information covered when pushing government and life information, and identify and train influential “big V” migrant workers in social networks to supervise and guide public opinion among this emerging online public opinion group, enabling migrant workers to better integrate into urban life and providing better services and support for rural revitalization and farmer entrepreneurship in the new era.

6. Research Conclusions

The theoretical value of this study lies in providing a theoretical framework for analyzing the information behavior of migrant worker groups in China through the analysis of their online information behavior using public data from Baidu Tieba’s “Migrant Workers Bar.” The practical value is that by analyzing panel data spanning nearly six years, it objectively presents the evolutionary characteristics and patterns of online information behavior of migrant worker groups during China’s urbanization development process. The study examines three aspects: content characteristics of online information acquisition behavior, temporal characteristics of publishing behavior, and thematic characteristics of sharing behavior. The results show that the alienation degree of content in online information acquisition behavior continues to deepen, with migrant workers’ information acquisition demand levels continuously improving. The temporal characteristics of online information publishing behavior evolve according to policy orientation at different stages of urbanization, with government policy guidance significantly influencing migrant workers’ information publishing behavior. The thematic characteristics of migrant workers’ online information sharing behavior show diversification, with shared topics closely related to their work and life.

This study has certain limitations. The data source is limited to the “Migrant Workers Bar” on Baidu Tieba, and the sample lacks comparative analysis with other group forums. Future research will expand the representativeness of data sources and include comparative studies with online information behaviors of

other groups.

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Chang Ying: Responsible for writing the main content of the paper;

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Research on the Characteristics and Evolution of Online Information Behavior of Migrant Workers in the Development of New-Type Urbanization

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Abstract: [Purpose/significance] In the process of accelerating the new urbanization strategy in China, analyzing the information behavior characteristics and evolution of the migrant worker group is of great significance for achieving accurate information-based poverty alleviation and analyzing the information needs of migrant workers in the new urbanization process. [Method/process] Based on the definition of migrant workers, using Python and XPath language, combined with Baidu Tieba migrant worker data, using the Jieba library to implement word segmentation and visualizing the data according to the two dimensions of time and content, the online information behavior characteristics and evolution patterns of the migrant worker group were analyzed. [Result/conclusion] The research conclusion reveals that in the process of new urbanization in China, the alienation degree of the content acquired in the online information acquisition behavior of migrant worker users continues to deepen, and the level of demand continues to improve; the time characteristics of online information publishing behavior are policy-oriented, and government policies on urbanization strategies, supporting migrant workers to return to their hometowns, and protecting the rights and interests of migrant workers have an important impact on the evolution of farmers' information behavior; the thematic characteristics of online information sharing behavior show diversification.

Keywords: new-type urbanization; migrant workers; information behavior; characteristics; evolution

Note: Figure translations are in progress. See original paper for figures.

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