

An Evaluation Study of the Discourse Power of Academic Journals on WeChat Official Platform: A Case Study of the Library and Information Science Field (Postprint)

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Abstract

[Purpose/Significance] Conducting research on the evaluation of discourse power of academic journals' WeChat official account platform, establishing an evaluation index system and evaluation model, can enrich the discourse power evaluation system of academic journals in the new media environment, provide insights for academic journals to develop academic new media via the WeChat platform, and promote the transformation and upgrading of academic journals in the new media era. [Method/Process] Drawing on the "comprehensive evaluation" framework to design the discourse power evaluation index system for academic journals' WeChat official accounts, employing the Analytic Hierarchy Process (AHP) to assign index weights and construct an evaluation model, and based on the weights of each index, utilizing the fuzzy comprehensive evaluation method to conduct a comprehensive analysis of the selected sample journals' WeChat official accounts. [Results/Conclusions] The evaluation results indicate that top-ranked academic journals are adept at seizing development opportunities in the new media era, capturing the initiative and first-mover rights in academic journal development, and leading academic discourse power. However, overall, academic journals' WeChat official account platforms lack distinctiveness, have low credibility, and exhibit significant disparities in platform construction. In future operations, it is necessary to emphasize service quality and the dissemination power and influence of push articles, and to enhance platform operation and user experience.

Full Text

Preamble

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Research on the Evaluation of Discourse Power of Academic Journals on WeChat Public Platform: Taking the Field of Library and Information Science as an Example

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Abstract: [Purpose/Significance] By studying the evaluation of discourse power of academic journals on WeChat public platforms and establishing an evaluation index system and model, this research can enrich the discourse power evaluation system for academic journals in the new media environment, provide insights for academic journals to develop academic new media via WeChat platforms, and promote the transformation and upgrading of academic journals in the new media era. [Method/Process] Drawing on the “Full Evaluation” framework, this paper designs an evaluation index system for the discourse power of academic journals’ WeChat public accounts, employs the Analytic Hierarchy Process (AHP) to assign index weights and construct an evaluation model, and uses fuzzy comprehensive evaluation based on these weights to conduct a comprehensive analysis of selected sample journal WeChat public accounts. [Result/Conclusion] Evaluation results indicate that top-ranked academic journals excel at seizing development opportunities in the new media era, capturing the initiative and first-mover rights in academic journal development, and leading academic discourse power. However, overall, academic journals’ WeChat public platforms suffer from weak recognizability, low trust levels, and significant disparities in platform construction. Future operations must emphasize service quality and the dissemination power and influence of tweets to enhance platform operation and user experience.

Keywords: discourse power evaluation; academic journals; WeChat public platform; fuzzy comprehensive evaluation; analytic hierarchy process

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1 Research Background

With the rapid development of science and technology and the widespread use of new media, an increasing number of scholars tend to acquire, publish, and share academic content on new media platforms [1]. Some essays, short reviews, and even rigorous long-form academic papers are widely disseminated across the internet through new media, transforming old models of academic communication while demonstrating the development potential of academic new media. Although the status of print journals remains unchanged, there remains certain

tension between the “journal” of the paper era and the “web” of the network era. Academic new media competing for market share have yet to form a significant presence. As this tension between “journal” and “web” is resolved, media convergence will reach deeper levels. The existence of new media will inevitably bring about changes within the traditional journal system, and new academic evaluation methods and systems will emerge accordingly [2].

We are currently in a new historical opportunity period for academic communication. The academic community must consider how academic journals based on traditional paper media can adapt to the evolving media landscape to better enhance China’s academic influence within the “strong West, weak China” pattern of academic discourse power. Hu Qintai argues that knowledge production and dissemination can derive academic discourse power, and that the essence of academic discourse power is the organic combination of academic discourse rights and discourse power [3]. The three major elements are academic quality, academic evaluation, and academic platform. To fundamentally change the structural imbalance between quality and quantity, the misalignment of evaluation systems, the utilitarian shift of academic standards, and the lagging construction of international communication platforms facing Chinese academia, we need to build an evaluation system with Chinese characteristics, construct an academic paper quality management system, and create a global digital international academic exchange and dissemination platform [3]. Zhao Rongying and Wang Xu conducted research and reviews on discourse power evaluation issues at home and abroad, finding that current academic circles lack research on discourse power evaluation theories, methods, and indicator systems, and consequently constructed a “Scientific Research Framework for Evaluating China’s Discourse Power” [4-5]. H. Borgmann proposed a new new media-based method to quantify public interest in a disciplinary field [6]. R. Zhao et al. pointed out that WeChat, as a popular social media tool, can serve as a novel and promising method to supplement traditional citation indicators, and proposed the WeChat Index to support social impact beyond academic research [7]. M. McPherson demonstrated through academic practices on Twitter that social media facilitates the establishment of academic networks locally and globally, strengthens information flow, and that this informal learning flow shapes the inclusive practices of academic developers [8].

In summary, existing research on academic journals’ new media platforms mainly focuses on media convergence theory, the operational status of academic journal platforms, evaluation of platform dissemination influence, and the integration of academic journals with new media. Current studies lack discussion on evaluation systems and methods for the discourse power of academic journals’ WeChat public accounts. In view of this, this paper explores the academic information dissemination process on WeChat platforms, the concept of discourse power, its constituent elements, and evaluation index design for academic journals’ WeChat public accounts. It constructs a discourse power evaluation index system that meets the needs of academic journals’ WeChat public platforms and conducts empirical research, aiming to provide insights

for academic journals to develop academic new media via WeChat platforms and promote their transformation and upgrading in the new media era.

2 Discourse Power of Academic Journals on WeChat Public Platform

Evaluating the discourse power of academic journals on WeChat public platforms is not simply an assessment of the academic content of journals or the operation of WeChat platforms. Although the academic information content currently disseminated on academic journals' WeChat platforms is mostly digitized versions of published papers, the evaluation of discourse power of academic journals' WeChat public accounts cannot be simply conflated with the evaluation of academic journals themselves. Their evaluation theories, standards, systems, and utilities are all different. Even though the generation of academic discourse on academic journals' WeChat public platforms is based on the WeChat platform, it should also include the academically recognized and highly convincing academic leadership elements developed through years of journal operation. Its evaluation requires comprehensive consideration of the discourse power elements of academic journals themselves and the characteristic features of WeChat public platform construction and operation, based on which we can grasp the constituent elements of discourse power of academic journals' WeChat public accounts and define the concept to conduct relevant evaluation research.

2.1 Academic Information Dissemination Model and Generation of Academic Discourse

Academic journals disseminate academic information through the WeChat platform, and their dissemination influence follows the formation patterns of media information processing theory. The academic information dissemination process on academic journals' WeChat platforms is shown in Figure 1 [Figure 1: see original paper]. As shown in the figure, during the information dissemination process, the information sender (the platform subject) sends certain information content (journal articles, research insights, cutting-edge information, conference promotions) to attract the selective attention of followed users—this is the contact stage of media influence. The published information content is delivered through the WeChat platform to information recipients (users who follow the public account or see others' forwards and shares), producing certain acceptance and comprehension effects and generating dissemination willingness—this is the cognition and persuasion stage of media influence. When conditions permit, recipients provide feedback to the information sender or transmit information to other recipients through comments, likes, forwards, and “wow” reactions, completing effective information dissemination—this is the secondary dissemination stage of media influence. Throughout this process, information recipients

may generate social collaborative behaviors through information sharing or continuous interaction with other users. Additionally, information recipients may become academic information outputters in another cycle of academic information dissemination.

From the perspective of the academic information dissemination model, the generation of discourse power of academic journals' WeChat public accounts results from the combined effect of multiple factors, including academic information recipients, scholar communication groups and institutions, and the operational efficiency of WeChat public accounts. Academic information undergoes primary and secondary dissemination. If the academic discourse produced by academic subjects has greater endogenous power to induce academic behaviors among information recipients, then the academic subject possesses certain academic discourse power. By analogy, if the academic discourse of academic journals' WeChat public accounts can more efficiently induce academic behaviors after dissemination within a certain scope, the platform can be said to possess certain discourse power. In this process of discourse generation, scholar discourse power and WeChat platform discourse power have a mutually reinforcing relationship.

2.2 Discourse Power

The term “discourse power” evolved from “discourse” (discourse). In ancient Greek works by Plato and others, the concept was already present. Discourse power research has undergone evolution from “discourse” to “power discourse” to “media discourse power” to “national soft power.” Linguistic research on “discourse” began with Saussure’s studies on speech, which included two levels: “language” and “speech.” The “speech” level emphasizes individual voice, individual behavior, and speech content, existing within group communication scenarios that already reveal the “power” implication of discourse due to their premise of a group-constructed discourse system. French scholar Michel Foucault proposed the concept of “discourse power,” arguing that discourse can exchange ideas and is an important form of knowledge transmission. Whether discourse is accepted is related to both the content and the speaker’s will. In 1970, in *The Order of Discourse*, he integrated the theme of power into discourse theory and proposed the concept of “power discourse,” considering power discourse itself as both a tool and a right self-endowed by discourse activity subjects for use in struggle [9]. Foucault had four perspectives on power: First, power is a relationship, but unlike Marxist and legalist views that treat power as a thing, he emphasized the examination of structure and relationships under structuralist influence; Second, power is a network in which individuals flow, being both subjects and users of power; Third, he affirmed that power is subjectless, emphasizing that power is not about who holds it, as everyone is a node in the power relationship network; Fourth, power is decentralized.

The characteristics of discourse power need to be analyzed from its generation process. According to Harold Lasswell’s [10] “5W” communication model, the generation process of discourse power includes five constituent elements:

discourse power subject, discourse content and carrier, discourse transmission medium, discourse power object, and discourse power implementation effect. These five elements correspond to four characteristics of discourse power: subjectivity, guidance, transmissibility, and influence, forming discourse power through the combined action of all elements [11].

2.3 Discourse Power of Academic Journals on WeChat Public Platform

Discourse power of academic journals on WeChat public platforms, also called academic new media discourse power, evolves with the rise of online new media and maturing internet technology. The media ecology has undergone tremendous changes, with emerging media such as social software and short video software on smart electronic devices rapidly 普及 and integrating into all aspects of life. The emergence of online new media and instant messaging platforms has transformed the discourse power structure, causing discourse power to shift in social distribution. The new media ecology has gradually taken shape, as seen through discourse dissemination effects, with new media increasingly occupying key positions in the competition for discourse power.

WeChat public accounts were launched in 2012 to create diversified experiences for users. Academic journals' WeChat public accounts adapt to WeChat's efficient dissemination characteristics and serve as output carriers for academic journals' academic discourse. From the overall academic atmosphere perspective, scholars, groups, and institutions that receive academic information during the dissemination process can create an academic environment for discourse generation. Through individual or team research, research findings create opportunities for exchange and sharing once discovered. Research findings, as the output of academic discourse by information recipients in the academic environment, can be seen as explicit expressions of academic discourse. Since the academic information content disseminated by journal WeChat platforms is mostly digitized versions of published papers, the discourse of academic journals' WeChat public accounts can be regarded as a collection of scholars' academic discourse. Platforms have certain resource advantages, can integrate scholars' discourse, and utilize their own highly convincing academic leadership to provide platform convenience for scholars' discourse dissemination.

By constructing an academic information dissemination model for academic journals' WeChat public accounts and analyzing their discourse power generation, we find that the discourse power of academic WeChat public accounts must be based on the characteristic features of WeChat as a new media platform, possessing characteristics of user credibility, high-quality content (both academic content and platform service level), and strong dissemination influence. Therefore, the constituent elements of discourse power of academic journals' WeChat public accounts are mainly summarized into three elements: platform credibility, content influence, and tweet dissemination power, as shown in Figure 2 [Figure 2: see original paper].

In view of this, this paper attempts to define the concept of discourse power of academic journals' WeChat public platforms as: The academic journal WeChat platform account subject, leveraging its own credibility advantage recognized by academic circles through years of journal operation, integrates academic hotspots and research findings. Through push dissemination within a certain scope, it achieves voice in academic circles, induces academic inquiry behaviors among individuals or groups in the academic environment, and thereby leads the direction of academic research—a “power” mainly manifested through WeChat platform credibility elements, academic content influence elements, and WeChat tweet dissemination power elements. Its “right” is reflected in scholars' hope to use the WeChat platform to transform their academic ideas into academic discourse in the form of digital research findings for dissemination throughout the academic environment, thereby enhancing their academic influence, as shown in Figure 3 [Figure 3: see original paper].

3 Evaluation Model for Discourse Power of Academic Journals on WeChat Public Platform

3.1 Evaluation Index System Design

Existing WeChat public account influence evaluation theories and scholar-constructed evaluation index systems employ various methods for evaluating academic journals' WeChat public accounts: constructing evaluation index systems based on the “Full Evaluation” model [12]; using grounded theory to construct evaluation models [13]; designing index systems with AHP and obtaining index weights through the Delphi method [14]; retaining quantitative indicators while using the LambdaMART algorithm to rank content verticality, posting stability, topic coverage, and topic relevance based on WeChat article characteristics [15], etc. Table 1 presents the index design situations and evaluation methods for WeChat public accounts already constructed in academic circles.

Referring to existing research results in Table 1 and following principles of purposefulness, comprehensiveness, scientificity, systematicity, and practicality, combined with the construction of academic information dissemination models for academic journals' WeChat public accounts and comprehensive analysis of the characteristic features of new media, academic journals' WeChat public accounts possess characteristics of user credibility, high-quality content (academic content and platform service level), and strong dissemination influence. The discourse power of academic journals' WeChat public accounts is mainly summarized into three constituent elements: platform credibility, content influence, and tweet dissemination power. Among them: Platform credibility includes three secondary indicators—platform recognizability, platform trustworthiness, and platform interactivity. Content influence includes three secondary indicators—content usefulness, content usability, and content friendli-

ness. Tweet dissemination power includes four secondary indicators—overall dissemination power, average per-article dissemination power, headline dissemination power, and peak dissemination power. The final index system is designed as shown in Table 2 .

3.2 Evaluation Model Construction

In practice, the group decision-making function in the Maisi AHP software was used to construct relative importance judgment matrices for units at the same level, obtain weights for each evaluation index, and ensure data validity through consistency tests. Considering the identity of the target group, the expert panel covered young teachers, associate professors, senior professors, journal editors, and graduate students. Based on their actual experience using academic journals' WeChat platforms, they completed survey forms. The collected expert judgment scale data for each element was then imported into the software. In the AHP system, the group decision-making method was set to “arithmetic mean method,” and the maximum eigenvalue and eigenvector calculation methods were set to “root method.” The resulting expert group decision weights were essentially the average of all experts' weight values for corresponding indicators of a single evaluation object. By calculating geometric means for corresponding indicator positions in the corrected matrix, the final group decision matrix was obtained, leading to expert group decision conclusion values and the construction of an evaluation model for discourse power of academic journals' WeChat public platforms, as shown in Figure 4 [Figure 4: see original paper].

The evaluation model for discourse power of academic journals' WeChat public platforms constructed in this paper contains two layers of indicators. The criterion-level primary indicators are platform credibility, content influence, and tweet dissemination power. Platform credibility includes three secondary indicators: platform recognizability, platform trustworthiness, and platform interactivity. Content influence includes three secondary indicators: content usefulness, content usability, and content friendliness. Tweet dissemination power includes four secondary indicators: overall dissemination power, average per-article dissemination power, headline dissemination power, and peak dissemination power.

4 Empirical Analysis

4.1 Data Sources

The journal samples selected for this paper come from the “2020 RCCSE Chinese Academic Journal Evaluation Report” published by the China Science and Education Evaluation Network. Twenty-two library and information science journals ranking at B+ level or above were selected as samples for this empirical study. Sample data were retrieved from CNKI, WeChat client, and

Qingbo Big Data. Data were mainly collected for indicators including platform recognizability, platform trustworthiness, overall dissemination power, average per-article dissemination power, headline dissemination power, and peak dissemination power, including the opening status of academic journals' WeChat public accounts, profile pictures and WeChat names, certification status, and WCI index.

Due to scattered data requiring verification, and the relatively low tweet frequency of academic journals' WeChat public platforms, a one-week period was used as the data selection cycle in the empirical research stage. Data collection occurred from March 1 to March 7, 2021. Table 3 presents data for the academic journals' WeChat public accounts participating in the comprehensive evaluation, with only partial data shown due to space limitations.

4.2 Data Processing

This paper uses the initial model for comprehensive evaluation, with basic steps as follows:

4.2.1 Establishing the Factor Set for Comprehensive Evaluation The set of various factors determining the evaluation object (indexes obtained through AHP) is defined as the factor set, denoted by U , where $U = \{u_1, u_1, \dots, u\}$. This paper sets the factor set for evaluating discourse power of academic journals' WeChat public accounts as: $U = \{P_1, P_2, P_3, P_4, P_5, P_6, P_7, P_8, P_9, P_{10}\}$, where subscripts 1-10 represent platform recognizability, platform trustworthiness, platform interactivity, content usefulness, content usability, content friendliness, overall dissemination power, average per-article dissemination power, headline dissemination power, and peak dissemination power, respectively.

4.2.2 Establishing the Evaluation Set The assessment level scale defined by experts for the evaluation object is defined as the evaluation set, denoted by V : $V = \{v_1, v_2, \dots, v\}$. Here, v represents the j -th evaluation result, which can be expressed using numbers, grades, or comments according to actual needs. For example, assigning scores s_1, s_2, \dots, s to evaluation set grades facilitates directly presenting sample evaluation results in score form. The grade score matrix is represented as $1 \times n$.

4.2.3 Constructing the Single-Factor Fuzzy Evaluation Matrix For the i -th element in factor set U relative to the j -th element in evaluation set V , its membership degree (expert evaluation situation) is represented as r_{ij} . The single-factor evaluation result constitutes the fuzzy set: $R_i = (r_{i1}, r_{i2}, \dots, r_{in})$. When the factor set contains $n \times m$ factors, the matrix formed with R_1, R_2, \dots, R_n as rows and R_j as columns is called the fuzzy comprehensive evaluation matrix.

4.2.4 Determining the Factor Weight Vector Throughout the evaluation process, according to actual needs, different factors have different importance levels. Weights a for each factor must be set to form the factor weight vector: $A = (a_1, a_2, \dots, a_n)$.

4.2.5 Establishing the Comprehensive Evaluation Model After obtaining the single-factor evaluation matrix R and factor weight vector A , fuzzy transformation is needed to convert the fuzzy vector A of the factor set into fuzzy vector B on the evaluation set, i.e., $B = A \circ R = (b_1, b_2, \dots, b_n)$. The “ \circ ” represents the comprehensive evaluation fuzzy operator. This paper uses the weighted average type fuzzy operator to clearly reflect weighting and fully utilize R for comprehensive evaluation.

4.2.6 Determining the Total Score for a Single Sample After establishing the comprehensive evaluation model, the total score for a particular sample is calculated using the formula: $F = B_1 \times \bullet S$.

Overall, for multi-objective fuzzy comprehensive evaluation using the same batch of expert scores, the total scores across the entire sample system are relatively credible. Taking *Library and Information Service* as an example to illustrate its comprehensive score derivation process: After AHP processing, the evaluation object’s scoring situation was matrix-normalized to obtain the fuzzy comprehensive evaluation matrix. Through fuzzy comprehensive operation, the evaluation membership matrix for *Library and Information Service* is as follows: $B = A \circ R = (0.0574, 0.1187, 0.0555, 0.2656, 0.0727, 0.1176, 0.1793, 0.0724, 0.0284, 0.0324) \times R = [0.5781, 0.2057, 0.1901, 0.0261]$.

The final total comprehensive evaluation score for the *Library and Information Service* journal WeChat public account is: $F = B_1 \times \bullet S_1 \times = [0.5781 \ 0.2057 \ 0.1901 \ 0.0261] \times [100 \ 85 \ 70 \ 55] = 90.0373$.

Due to space limitations, the scoring calculation processes for other academic journals’ WeChat public accounts are not repeated. The final comprehensive evaluation scores are summarized in Table 4.

4.3 Results Analysis

4.3.1 Top-Ranked Academic Journals Seize the Initiative, Lead Academic Trends Top-ranked journals such as *Library and Information Service*, *Library and Information Science Knowledge*, and *Information Science: Theory and Application* excel at grasping new media development opportunities in the mobile internet era, conforming to international OA publishing trends, seizing development opportunities and first-mover rights in academic journals, and leading academic trends and discourse power. These journals feature highly relevant content, strong user-friendliness, rich menu functions, and can design back-issue browsing functions based on users’ diverse needs. They utilize multimedia technology to optimize information content presentation, enhance their credibility

and discourse output levels while focusing on their own WeChat platform construction, gain recognition in the new media public opinion field, and thereby highlight their WeChat public platform's discourse power.

4.3.2 Weak Recognizability and Interactivity of Academic Journals' WeChat Public Accounts Analysis of evaluation results reveals that some academic journals with opened WeChat platforms have different WeChat names from their journal names, increasing search difficulty. Some academic journal public accounts use seal or badge-style profile pictures, such as *Library and Information Service* and *China Archives* using calligraphy seal styles, and *Information Science: Theory and Application* using badge styles. According to social psychology's first impression effect, audiences' first impressions of subjects are important and easily form initial perceptual understandings that dominate. Seal and badge-style profile pictures are novel and aesthetically pleasing but 不利于 user recognition and result in lower user trust. Additionally, institutional certification status varies among academic journals' WeChat public accounts. Official certification represents assessment results from relevant review agencies on public account subject certification materials during certain periods, largely ensuring the authenticity, validity, and security of public account information. In the library and information science field, high-level journals such as *Journal of Library Science in China*, *Journal of the China Society for Scientific and Technical Information*, and *Information Science* rank at B+ or above in the Chinese Academic Journal Evaluation Report. However, after following and experiencing these accounts, we found they have fewer developed functions, weaker interactivity, lack keyword automatic replies, menus, interactive functions, manuscript review checking, paper retrieval, and back-issue browsing functions. The overall construction level of academic journals' WeChat public platforms is insufficient.

4.3.3 Uneven Content Services of Academic Journals' WeChat Public Accounts For academic journals' WeChat public platforms, the usefulness of pushed academic content, the usability of content forms, and the aesthetics of layout are all important aspects of platform construction. Research shows that top-ranked journals perform well in content services overall, while lower-ranked public accounts have weaker professionalism, authority, and usefulness in their tweets or back-issue browsing content. For example, *Library and Information Science Knowledge* and *Journal of Information Resources Management* demonstrate strong user-friendliness with rich menu functions and professional tweet content. Their back-issue browsing functions are presented through the "Bokan Digital Publishing" mini-program, offering high zoom freedom and multiple sharing channels. Conversely, some journals fail to grasp the diverse characteristics and discourse modes compatible with new media, have interfaces unsuitable for mobile devices, incomplete menu functions, back-issue browsing that only provides catalog images with distorted pixels, and do not maximize platform dissemination effects. Some journals' operational levels do not match their publication quality.

4.3.4 Suboptimal Opening Status of Academic Journals' WeChat Public Accounts The research sample was selected from the “Chinese Academic Journal Evaluation Research Report” (6th Edition) by Jinpingguo, which includes 366 authoritative academic journals (A+ level), 1,693 core journals (A and A- levels), 1,914 quasi-core journals (B+ level), and 1,847 general journals (B level). The top 42 core journals in the “870 Library, Information and Documentation” category were selected as evaluation samples, providing certain typicality and representativeness. However, statistical data reveal that the opening rate of WeChat public accounts is only about 55%. Although academic new media platforms are diverse (Weibo, WeChat, etc.) and academic journals need not rely solely on WeChat platforms for dissemination but can also enhance their dissemination influence through digital and network technology products, the overall opening status of academic journals' WeChat public accounts—this form of academic new media—still needs improvement.

Furthermore, the utility evaluation indicators in the discourse power evaluation model constructed in this paper—the tweet dissemination power indicators—reference the WCI index, which includes overall dissemination power, average per-article dissemination power, headline dissemination power, and peak dissemination power. Upon retrieval, we found that among academic journals with opened WeChat accounts, operational data for journals such as *Library Tribune* and *University Library Science Journal* are not included in the Qingbo database. Whether for influence evaluation of WeChat platforms or discourse power evaluation of academic journals' WeChat platforms, data from platforms like Qingbo Index and Newrank Index are important references. Academic journals' WeChat public accounts should connect to third-party databases to provide data support for practical applications.

5 Conclusions and Recommendations

5.1 Conclusions and Limitations

This paper studied the evaluation theory and index system for discourse power of academic journals' WeChat public accounts. Theoretically, based on research status regarding “discourse power,” “academic new media,” and “WeChat public account influence evaluation,” it introduced relevant theories to analyze the academic information dissemination process on WeChat platforms and the generation process of academic discourse on academic journals' WeChat platforms. It defined the concept of discourse power of academic journals' WeChat public accounts: The account subject of academic journals' WeChat platforms leverages its own credibility advantage to integrate academic hotspots and research findings. Through push dissemination within a certain scope, it achieves voice in academic circles, induces academic inquiry behaviors among individuals or groups in the academic environment, and leads the direction of academic research—a “power” mainly manifested through WeChat platform credibility elements,

academic content influence elements, and WeChat tweet dissemination power elements. These constitute the three primary indicators of the discourse power evaluation system.

Practically, this paper designed an evaluation index system for discourse power of academic journals' WeChat platforms, used AHP to obtain index weights and construct an evaluation model, and applied fuzzy comprehensive evaluation for scoring based on these weights. Empirical results analysis found that platform users particularly value the quality of academic information content services and the dissemination influence of tweets. The usefulness, usability, and aesthetic layout of academic content pushed by academic journals' WeChat platforms directly correlate with evaluation results, with content services showing various characteristics, strengths, and weaknesses. Additionally, the evaluation ranking of discourse power of academic journals' WeChat public accounts does not necessarily correlate with academic journal evaluation rankings. The evaluation of academic journals' public account discourse power assesses not only content dimensions (usefulness, usability, friendliness) but also platform form dimensions (recognizability, trustworthiness, interactivity) and utility dimensions (tweet dissemination influence). These indicators are designed based on the characteristic features of WeChat public platforms as new media, distinguishing them from academic journal evaluations.

This paper's evaluation indicators comprehensively reference existing WeChat public account influence evaluation theories and scholar-constructed index systems, combined with academic information dissemination and discourse generation processes, discourse power connotations, and constituent elements. This represents an induction and extension of existing indicators but inevitably contains subjective factors. As technology advances rapidly, subsequent research on evaluation model construction should follow developmental principles, adapt to ensuing new changes, and adjust corresponding evaluation indicators according to different periods' needs and evaluation purposes.

5.2 Strategies for Enhancing Discourse Power of Academic Journals' WeChat Public Accounts

5.2.1 Emphasize Platform Image Construction to Enhance Credibility

While new media development is diversified, inclusive, and advocates personalization and brand effects, for academic journals' public accounts, service quality and output of professional, authoritative academic content remain most important. In terms of image design and graphic interface layout, academic journals' WeChat platforms must maintain the rigorous style of communication studies. Seal and badge-style profile pictures appear novel and aesthetically pleasing but are 不利于 user recognition and convey insufficient intuitiveness, rigor, and low trust as first impressions. Additionally, academic journals' WeChat public platforms should pay attention to their certification status. During the research process, experts 反馈 that institution-certified public platforms have higher credibility.

5.2.2 Improve Academic Content Service Levels to Enhance Content Influence In terms of academic content services, user needs should be central. Menu bars should comprehensively cover functions such as manuscript review, submission checking, submission guidelines, back-issue browsing, paper retrieval, journal updates, academic conferences, and academic reports. For journal article reading, user experience should be enhanced by providing full-text reading rather than just catalog overviews or abstract introductions. Layouts should be 精美 with clear images, adapted for mobile online reading, offering full-text sharing functions and supporting file downloads for different mobile versions to enrich academic content presentation forms. Furthermore, enhancing journals' comprehensive influence is crucial.

5.2.3 Emphasize Tweet Frequency, Increase Followers, and Enhance Tweet Dissemination Power During operation, platforms should increase promotional efforts, attract more followers, publish high-quality academic content, generate more powerful academic discourse, and emphasize tweet frequency to enhance tweet dissemination power—a key element of discourse power. Moreover, whether for scholars' evaluation of WeChat platform influence or this paper's discourse power evaluation research, data from platforms like Qingbo Index and Newrank Index are important references. Journal WeChat public accounts should connect to third-party databases to provide data support for practical applications.

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Author Contributions

Zhang Zhaoyang: Paper writing and revision;
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English Abstract

Abstract [Purpose/Significance] By studying the evaluation of discourse power of academic journals on WeChat public platforms and establishing an evaluation index system and model, this research can enrich the discourse power evaluation system for academic journals in the new media environment, provide insights for academic journals to develop academic new media via WeChat platforms, and promote the transformation and upgrading of academic journals in the new media era. [Method/Process] Drawing on the “Full Evaluation” framework, this paper designs an evaluation index system for the discourse power of academic journals’ WeChat public accounts, employs the Analytic Hierarchy Process (AHP) to assign index weights and construct an evaluation model, and uses fuzzy comprehensive evaluation based on these weights to conduct a comprehensive analysis of selected sample journal WeChat public accounts. [Result/Conclusion] Evaluation results indicate that top-ranked academic journals excel at seizing development opportunities in the new media era, capturing the initiative and first-mover rights in academic journal development, and leading academic discourse power. However, overall, academic journals’ WeChat public platforms suffer from weak recognizability, low trust levels, and significant disparities in platform construction. Future operations must emphasize service quality and the dissemination power and influence of tweets to enhance platform operation and user experience.

Keywords: discourse power evaluation; academic journals; WeChat public platform; fuzzy comprehensive evaluation; analytic hierarchy process

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

Source: ChinaXiv — Machine translation. Verify with original.