

Reflections on the Transformation of Academic Journal Editing and Publishing: Postprint

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Abstract

Against the backdrop of the Internet+ era, traditional academic journals should, based on their inherent characteristics, embrace the transformation and upgrading of publishing models driven by IT technology. Focusing on the reform of green publishing and dissemination methods, they should fully leverage existing data resources, provide quality services, improve publication standards, and promote the dissemination and exchange of scientific research and its achievements. They should promptly adjust editing, publishing, and distribution models, cultivate distinctive features, and establish a brand identity within the context of media convergence. Furthermore, they should establish a sound ecological environment for academic journals and explore a development path with Chinese characteristics.

Full Text

Reflections on the Transformation of Academic Journal Editing and Publishing

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Abstract: Against the backdrop of the “Internet Plus” era, traditional academic journals must embrace the transformation and upgrading of publishing models driven by IT technology in accordance with their inherent characteristics. By focusing on the reform of green publishing and communication methods, fully utilizing existing data resources, improving services, enhancing publication quality, and promoting the dissemination and exchange of scientific research and its achievements, journals can adjust their editing, publishing, and distribution models in a timely manner. Amid media convergence, they should develop distinctive features, establish brands, create a sound ecological environment for academic journals, and explore a development path with Chinese characteristics.

Keywords: traditional academic journals; journal brand; green publishing; communication methods; data analysis; journal internationalization

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In recent years, to regulate academic journal publishing order and promote healthy development, the State Administration of Press, Publication, Radio, Film and Television has issued the “Notice on Regulating Academic Journal Publishing Order and Promoting Healthy Development of Academic Journals” and the “Notice on Conducting Academic Journal Identification and Cleanup Work,” organizing academic journal identification efforts. The first and second batches of identified academic journals were announced, totaling 5,756 journals in November 2014 and 712 in February 2017, respectively. To date, 6,468 academic journals have been identified. According to incomplete statistics, mainland China has over 10,000 journals with both international and domestic ISSNs (as of 2014 statistics, China had 9,966 journals, excluding newly approved ones in recent years), meaning approximately 35% of journals have not obtained certification.

Non-academic journals focus on documents, images, reports, and general knowledge; whereas each academic journal typically has its own purpose and direction, publishing articles limited to specific disciplinary scopes and research fields with strict standards. Content primarily consists of original research papers and reviews. To ensure publication quality, peer review serves as an important organizational measure and guarantee [?]. Published research results with scientific truth, innovative value, and advanced technology must meet certain requirements for academic rigor and format. Due to the serious nature of academic journals, they pursue authority and brand value. A noteworthy phenomenon is that while the academic community expects academic journals to play important roles in promoting theoretical innovation and academic progress, there is considerable dissatisfaction with existing academic journal evaluation systems, whose criteria are frequently questioned and criticized [?]. “Academic journals emerged due to the needs of academic research and should have been embedded in and become the center of the academic community. However, under the dominance of administrative power, the structure and layout of academic journals are determined by administrative will. Once the central position conferred by administrative power is challenged by emerging media that the traditional journal system cannot constrain, the stable state of the communication order will be disrupted” [?].

Most paper journals remain limited to their role as single content providers, serving narrow functions such as degree evaluation (e.g., doctoral graduation), professional promotion (e.g., for researchers and teachers), project assessment

(e.g., completion of various research grants), and influence evaluation of higher education institutions and research units. Journals treat these as important goals, and authors publish for these purposes, weakening or even distorting the inherent functions of academic journals. The various chronic problems caused by this excessive focus on publication and journal evaluation (the so-called journal ranking phenomenon, evaluating articles based on journals) have long been criticized by society, particularly the academic community [?], directly affecting the ecological environment of academic journals and causing a large outflow of excellent manuscripts abroad. Currently, we must explore how to transform academic journals from single content providers into information platforms serving the entire research process and construct their brand value function.

1. The Brand Function of Academic Journals

In Western developed countries, with advanced operational models and publishing technologies, the formation of academic journal brands has cases spanning over a hundred or even several hundred years. Journals enjoy a relaxed institutional environment, forming mature publishing concepts with professional, market-oriented, large-scale, and globalized operational mechanisms. Branded journals have broader international influence [?]. Due to historical and current particularities, China's academic journals have significant gaps compared with mature foreign markets.

The core of academic journals' brand function lies in two aspects: first, quality (authority); second, dissemination. Content quality is the soul of a journal, while broad and effective dissemination transfers value to society and expands influence. Quality assurance measures rely on peer review [?]. Articles published after peer review generally possess academic value and are labeled with the trademark brand (authority) of the publishing journal, including international standard ISSN, domestic standard CN, and various labels of journal evaluation recognition, such as America's SCI, SSCI, AHCI, EI, etc., and domestic CSSCI, Peking University Chinese Core Journals, and Chinese Science and Technology Core Journals (statistical source journals). The turn of the 20th to 21st century marks a crucial node in academic communication history, transitioning from the print era to the digital era. Each published article is assigned a DOI, which, as a digital object identifier, is unique to the identified digital object, similar to a person's ID card. In the digital era, authors have many self-publishing channels through online self-media such as Weibo, WeChat, and websites, as well as new electronic journals that do not require peer review. Therefore, academic journals cherish and carefully protect their brand function, evaluation reputation, and the influence of included databases. Actively promoting academic journal transformation, improving communication channels and methods, and enhancing brand influence constitute the realistic characteristics of contemporary academic journals.

2. Green Publishing and Communication Transformation

Academic journal publishing transformation should promote the dissemination and exchange of scientific research and its achievements, conforming to development trends and mainstream value changes—this is both a social need and an inevitable journal transformation. Green publishing is a hot topic, referring to controlling resource consumption and ecological pollution in papermaking and printing. Understanding green publishing in academic journals should include at least three aspects:

2.1 Low-Carbon Publishing

This involves increasing energy conservation and emission reduction in paper production, publishing materials, and printing processes, such as using environmentally friendly paper, recycled paper, recycling waste printed materials, and using degradable green printing inks to reduce pollution and hazards. Low-carbon publishing is a green publishing concept aiming for harmony among environment, economy, and culture. Publishers should follow the trend, occupy the moral high ground, pay attention to paper production from an ecological protection perspective, control resource consumption in printing processes, and transform publishing methods from the perspective of establishing energy-saving, emission-reducing, and low-carbon circular economies. Wisely producing healthy publications needed by readers is the goal of green publishing construction [?].

2.2 Print-on-Demand

Today, traditional academic journal print editions have become a niche demand with decreasing quantities. Typesetting software, image processing software, and digital printing technology have made small-batch, personalized, and immediate printing possible, enabling true print-on-demand and zero inventory. Print-on-demand and zero inventory without wasting resources are important elements of green publishing. The minimum print quantity requirements of traditional batch printing will change in digital publishing. In the 1.0 and 2.0 eras of paper journal distribution, print quantities were typically determined empirically based on previous subscription numbers, complimentary copies, and backup copies. Considering startup costs, imposition, and the near impossibility of reprinting, general print products would maintain a certain surplus, creating inventory. These extra printed journals for backup not only increase costs and waste resources but also require storage space, rarely achieve sales, and are mostly sent to paper mills to be repulped.

2.3 Digital Dissemination of Journals

Academic journals can rely on large databases and self-media for dissemination. Each issue or even individual paper can be published online promptly on domestic and international platforms after editing. Various carrier forms such as

online editions and mobile terminals facilitate readers' reading, retrieval, and subscription. Since 1996, when Germany's Springer publishing company officially launched the world's first full-text e-book and e-journal database, influential foreign communication platforms such as JOHN WILEY's online publishing platform (Interscience) have built large professional databases covering science, technology, medicine, and academic publishing; the Netherlands' Reed Elsevier has also established its own large professional database, completing the digitization of journal publishing processes, enabling online-first publication (released online before print). Domestic influential platforms such as CNKI, Wanfang, and VIP databases not only conduct large-scale inclusion but also actively implement online-first publication and create electronic journals. To a certain extent, databases have monopolized the digital transmission paths of journal papers, while self-media and public network communication can only expand influence and add value. The function of print journals, apart from being habitually read by some older readers, is gradually evolving to have more symbolic significance and collection value. The communication methods of academic journals have been fundamentally transformed.

In self-media dissemination, many journals publish full texts of accepted or published articles through their own websites. WeChat public accounts facilitate excerpt publication, adapting to readers' fragmented reading behavior patterns. Network technology has enhanced the breadth and timeliness of academic journal dissemination, enabling rapid and widespread dissemination while reducing distribution costs, fundamentally accelerating the formation of green publishing and communication models.

3. Dependence on Data Analysis in the Digital Communication Era

Big data analysis has become a hot research topic and is effectively applied in academic journal operation. Database services and Internet of Things development enable academic journal publishing to quickly and widely obtain reader and author information. Professional academic publishing is being continuously reconstructed by developing information technology, and relying on big data analysis can help academic journals solve some key issues in the editorial process.

3.1 Soliciting Contributions

In the digital communication era, obtaining big data is relatively easy. Based on data analysis, authors can enter the editorial group's field of vision for soliciting contributions. Articles from such authors not only have relatively good quality but also relatively guaranteed submission cycles, making this more efficient and targeted than traditional methods that rely on authors' reputation, position, or title for soliciting contributions.

3.2 Peer Review

During the peer review stage, database information can also be used to select review experts, allowing not only subdivision of reviewers' professional fields down to specific topics but also highly matching reviewers' research fields with the content of submitted articles. The matching conclusions obtained through data analysis are more accurate than editorial departments' subjective judgments, and database information can also provide multiple options. Traditional solicitation methods and reviewer selection for academic journals mostly rely on the wisdom and experience of editorial boards and departments. Excellent academic journals are respected by society precisely because strong editorial boards, rigorous editorial departments, and well-established peer review and strict review and proofreading systems are key to ensuring academic quality—something no technological innovation or media change can completely replace.

3.3 Topic Planning

Data analysis can also predict hot topics in disciplines and even society. For example, conducting statistical analysis of academic influence on single papers or all papers in a disciplinary field within a specified time period, using available data such as citation counts, download counts, reading counts, and publication counts, not only helps with academic journal topic and column planning but also conforms to world trends and guides scholars to adjust research directions [?]. How to fully utilize existing information and data to improve publication quality in the digital communication era will be a topic requiring sufficient attention from every academic journal.

3.4 Detecting Academic Misconduct

Academic misconduct typically refers to behaviors that violate academic ethics, such as plagiarism, copying, duplicate publication, multiple submissions, and improper authorship [?]. The openness of online academic resource platforms enables multi-level management and public sharing of academic information. Most journal editorial departments use academic misconduct detection systems authorized by CNKI, Wanfang, VIP, and other databases. Proper use of data resources can also effectively analyze and manage authors, distinguishing high-quality authors from those with poor academic records. Using the “Academic Literature Network Publishing Master Database” as a full-text comparison database provides technical support for submitted paper review. The types and quantity of literature included in the comparison database directly affect detection accuracy. To date, most databases still limit their included resource types to journals, dissertations, conference papers, newspapers, yearbooks, reference books, patents, foreign literature, and academic citations, with few books included. Plagiarism and copying from books cannot be detected by detection software—this is a shortcoming of detection systems that requires continued improvement. Editors and reviewers must attach great importance to this issue and not let papers plagiarizing books slip through the net.

4. Going Global and International Communication

4.1 Going Global

To enhance international influence, excellent academic journals, especially scientific and technological journals, should gradually and systematically go global. Going global does not mean moving editorial offices abroad but rather developing international editorial boards, reviewers, and authors. Since 2013, to implement the important instructions from the Secretariat of the Central Committee on “conducting extensive cooperation to build high-quality exchange platforms such as academic journals with international professional standards” and “improving academic exchange levels and influence by building different forms and levels of exchange platforms around improving independent innovation capabilities and building an innovative country,” and to promote the international development of China’s scientific and technological journals and enhance the international influence and core competitiveness of English scientific and technological journals, the China Association for Science and Technology, jointly with the Ministry of Finance, Ministry of Education, State Administration of Press, Publication, Radio, Film and Television, Chinese Academy of Sciences, Chinese Academy of Engineering, and other departments, has organized and implemented the China Science and Technology Journal International Influence Enhancement Plan, providing policy and financial support. This has attracted widespread attention from academic journals and achieved certain results.

4.2 Correctly Understanding International Communication

Internationalization of academic journals cannot be simply understood as “publishing English journals.” As a communication medium, language importance is unquestionable, especially since English remains the official language of most developed countries, making English journals a significant breakthrough for expanding the influence of China’s academic journals. However, besides English, there are multiple internationally common languages, and the importance of Chinese is becoming increasingly prominent with China’s development and strength. The international influence of academic journals consists of multiple elements, with “content is king”—publishing high-level papers remains the core. Besides international strategies and languages, it also includes international publishing standards and international communication platforms [?]. International communication must break the shackles of paper media, leverage the convenience brought by cloud computing for knowledge services, build self-owned cloud computing centers or utilize internationally renowned publishing groups and databases, integrate resources, allocate rationally, and strive to achieve socialized, intensive, and specialized transformation services for journal resources to achieve rapid, widespread, user-demand-satisfying communication that realizes self-value and benefits.

5. Online Expansion of Service Functions

In today's era of highly developed network information, most academic journal editorial departments have established their own websites to maintain necessary discourse power. Besides mastering discourse power and disseminating journal information, official websites can also reduce the space for counterfeit journals to defraud and better serve authors and readers. In addition to communication through website submission systems, some editorial departments have established QQ groups and WeChat groups for authors, which are very popular.

5.1 Better Serving Authors

To run academic journals well, editorial departments must further strengthen service concepts and awareness, open green channels for excellent manuscripts, and proactively undertake basic work such as text polishing, format editing, chart processing, and literature translation, 原则上不让作者负担排版之类技术性较强的工作. For journals with international needs, the editorial department can organize translations into different languages according to the requirements of different communication platforms to achieve widespread dissemination.

5.2 Better Pushing Content to Readers

Leveraging the powerful technical advantages of cloud computing and classification management, online and mobile publishing big data storage capabilities can be utilized and mined to serve readers as the core, providing differentiated services and personalized access channels for different types of readers, and promptly pushing information resources that meet their needs to institutions and high-quality readers, enabling them to understand the latest scientific and technological achievements at the forefront of disciplines and placing themselves at the high end of the value chain.

5.3 Providing Product Integration

Providing diverse academic information, increasing discipline-specific and type-specific professional content integration, editing and publishing on demand, customizing packaged pushes, and personalized online transmission can build a multi-functional online product system that meets various needs, striving to become a highly specialized information service institution that sells journal products in multiple forms and through multiple channels.

As journal publishers, we have experienced the ups and downs of journal editing and publishing over the past thirty years, going through the 1.0 era of laser typesetting and paper distribution, the 2.0 era of internet application and network dissemination, to the current 3.0 era of journals: entering the transformation of cloud computing and knowledge services. Against the backdrop of "Internet Plus," besides facing and accepting reality, we need to jointly establish a sound ecological environment for academic journals, rationally analyze the inherent

characteristics of academic journals, identify their functions, develop strengths and avoid weaknesses, accept challenges, timely adjust editing, publishing, and distribution models, develop distinctive features and build brands amid media convergence, embrace the transformation and upgrading of publishing models driven by IT technology, and explore a development path for academic journals with Chinese characteristics.

References

- [1] Liang Jie. Reflections on the Development Path of University Academic Journal Publishing [J]. Chinese Journal of Scientific and Technical Periodicals, 2015, 26(11): 1127-1133.
 - [2] Shao Song, Qiao Jiansong. An Empirical Study on Academic Journal Influence from a Humanistic Perspective—Taking Architecture as an Example [J]. Time Architecture, 2017(1): 164-167.
 - [3] Zhang Chunli, Shang Lina, Ni Sixiu. Exploration of Open Peer Review Models for Scientific and Technical Journals [J]. Chinese Journal of Scientific and Technical Periodicals, 2015, 26(11): 1151-1155.
 - [4] Shao Song, Qiao Jiansong. Analysis of the Current Situation of Academic Journal Influence in Architecture [J]. South Architecture, 2015(6): 95-101.
 - [5] Zhu Jian. Constructing a New Order for Academic Communication in the Internet Era—Focusing on the Development Strategy of University Academic Journals [J]. Wuhan University Journal (Humanities and Social Sciences Edition), 2016, 69(2): 67-80.
 - [6] Qi Feng. Advocating Green Publishing and Transforming Development Mode [J]. Editorial Friend, 2010(7): 1.
 - [7] Shao Song, Qiao Jiansong. The Impact of Journal Discipline Classification on Journal Evaluation [J]. Science-Technology and Publication, 2017(3): 119-125.
 - [8] Sun Fengcheng, Cui Hushe. Characteristic Analysis of Academic Misconduct and Preventive Measures for Academic Journal Editors [J]. Acta Editologica, 2013(S1): S34-S37.
 - [9] Yang Zhihua. Reflections on the Internationalization of Academic Journals [J]. Chinese Journal of Scientific and Technical Periodicals, 2013, 24(1): 154-157.
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Utilizing the powerful functions of WeChat public accounts to intensify journal brand promotion, we should actively build bridges among editors, authors, and users to achieve the sharing of journal content, information, and emotional exchange. With the improvement of the domestic academic environment and the emphasis placed by journal editing and publishing units on academic information dissemination, the role of WeChat public accounts as platforms for academic information dissemination and exchange will certainly be better developed.

References

- [1] Sohu.com. Interim Provisions on the Development and Management of Public Information Services of Instant Messaging Tools [EB/OL]. (2014-08-07) [2017-12-22]. <http://news.sohu.com/20140807/n403218751.shtml>.
 - [2] Ma Yong, Zhao Shouyi, Sun Shouzeng. Analysis of Functional Selection of WeChat Public Platforms by Academic Journals [J]. Science-Technology and Publication, 2014(9): 77-81.
 - [3] Xie Wenliang. WeChat Public Account Service Models for Academic Journals in the Mobile Internet Era [J]. Chinese Journal of Scientific and Technical Periodicals, 2015(1): 65-72.
 - [4] Cheng Qinjuan, Yan Qiong. Problems and Improvement Strategies of WeChat Public Accounts of Academic Journals [J]. Chinese Journal of Scientific and Technical Periodicals, 2015(4): 380-383.
 - [5] Zhang Yanping. Research on the Operation Model of WeChat Public Accounts for Scientific and Technical Journals—Based on Quantitative Analysis of Four Core Scientific and Technical Journals [J]. Chinese Journal of Scientific and Technical Periodicals, 2015(5): 524-531.
 - [6] Zhang Yanping. Operation Strategies of WeChat Public Accounts for University Journals [J]. Journal of Fujian University of Technology, 2015, 13(2): 151-155.
 - [7] 2014 WeChat Public Account User Behavior Habits Research Report [EB/OL]. (2016-01-20) [2017-12-25]. http://www.360doc.com/content/16/0120/11/30252732_{529285234}.sh
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