

## Post-print of Academic Journal Data Service Platform Construction Based on Cultural Industry Digitalization Strategy

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### Abstract

**【目的】** With the rapid popularization of internet technology and the swift advent of the big data era, digitalization has gradually risen to become a national strategy.

**【方法】** Building a cultural data service platform is an essential component of the national cultural industry digitalization strategy. As an important part of cultural data, the construction of a journal data service platform is timely.

**【结果】** The construction of journal data service platforms in the new era is conducive to accelerating the establishment of cultural data service platforms, promoting the digital transformation and upgrading of journal data, and developing new scenarios for digital cultural consumption of journals.

**【结论】** The construction of journal data service platforms in the new era faces issues such as unclear positioning, limited dissemination methods, and low resource utilization rates. The construction of journal data service platforms in the new era needs to focus on journal market big data, analyze journal social big data, identify journal academic big data, track journal innovation big data, and integrate journal cooperation big data.

### Full Text

#### Preamble

#### Construction of an Academic Journal Data Service Platform Based on the Cultural Industry Digitalization Strategy

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## Abstract

**[Objective]** With the rapid popularization of internet technology and the advent of the big data era, digitalization has gradually become a national strategic priority. **[Method]** Building a cultural data service platform represents an essential component of the national cultural industry digitalization strategy. As a vital part of cultural data, the construction of journal data service platforms is both timely and necessary. **[Result]** Developing journal data service platforms in the new era facilitates the accelerated construction of cultural data service platforms, drives the digital transformation and upgrading of journal data, and fosters new scenarios for digital cultural consumption. **Conclusion** However, such platform development faces challenges including unclear positioning, limited dissemination methods, and low resource utilization. Addressing these issues requires attention to journal market big data, analysis of journal social big data, screening of journal academic big data, tracking of journal innovation big data, and integration of journal cooperation big data.

**Keywords:** cultural industry digitalization strategy; journal data; service platform; construction

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Since the 18th National Congress of the Communist Party of China, the state has attached great importance to digital construction, accelerating China's digitalization process. As the "Internet Plus" application domain continues to expand, big data management bureaus have been established across the country, marking a new stage in China's digital development. With the proposal of the national cultural industry digitalization strategy, the construction of cultural data service platforms has become imperative. Academic journals, as platforms for showcasing high-level research achievements, embody the diligent work and wisdom of academic researchers and constitute an indispensable component of culture. The development of cultural data service platforms depends on the construction of academic journal data service platforms and the collective efforts of numerous journal publishers. Digital journals represent both the strategic direction for journal development and an important element in building Digital China. Vigorously promoting the construction of academic journal data service platforms creates new opportunities for the prosperity and development of China's journal industry, enabling us to seize the high ground in academic journal data services and compete for high-quality academic achievements and data resources, thereby accelerating the construction of a world-class journal

power [1].

## 1. Background of the National Cultural Industry Digitalization Strategy

As internet technology becomes increasingly widespread, big data has developed rapidly on a global scale and garnered growing attention from developed countries. These nations have introduced supportive policies to promote big data development and application, thereby stimulating economic growth, improving social governance, enhancing public welfare, and strengthening national security. The main international models for cultural industry digitalization include: first, the U.S. model driven by market innovation; second, the UK-France-Germany-Italy model driven by resource innovation; and third, the Japan-South Korea model driven by policy innovation [2]. Currently, the United States leads the world in big data, with North America, represented by the U.S. and Canada, accounting for over 35% of the global market share, which has greatly promoted the development of big data, artificial intelligence, and related industries. In recent years, China has also increasingly emphasized big data development, launching the remarkable “East Data West Computing” project to build an integrated new computing power network system combining big data, data centers, and cloud computing. This initiative channels computing power demand from eastern regions to western regions, achieving coordinated development between east and west and jointly building a digital economy.

In February 2022, China proposed establishing national computing power hub nodes in eastern regions such as Beijing-Tianjin-Hebei, Yangtze River Delta, and Guangdong-Hong Kong-Macao Greater Bay Area, as well as in western regions including Chengdu-Chongqing, Inner Mongolia, Guizhou, Gansu, and Ningxia, while planning ten national data center clusters. Concurrently, local big data management bureaus are accelerating efforts to promote big data application and informationization processes, continuously enhancing informationization development levels [3].

Cultural undertakings constitute an important component of the socialist cause with Chinese characteristics in the new era, and the construction of cultural databases has received high-level attention from the Party Central Committee and the State Council. A new round of scientific and technological revolution and industrial transformation is emerging, with big data, cloud computing, artificial intelligence, and other technologies driving digitalization and informationization into a new development stage, becoming an important driving force for national economic and social development. In recent years, the state has promulgated several policy documents, elevating digitalization, informationization, and intelligence to a strategically important position in national development.

In July 2016, the General Office of the Communist Party of China Central Committee and the General Office of the State Council issued the *National Informationization Development Strategy Outline*, which charted the course for

China's informationization development over the next decade, requiring the construction of a cyber power to lead global informationization development. This programmatic document provides directional guidance for digital culture and digital journal construction. In August 2019, four departments—the China Association for Science and Technology, the Publicity Department of the CPC Central Committee, the Ministry of Education, and the Ministry of Science and Technology—jointly issued the *Opinions on Deepening Reform to Cultivate World-Class Sci-Tech Journals*, proposing the establishment of a big data center for sci-tech journal papers, building a public service platform for world sci-tech papers, expert and scholar databases, citation databases, and application data, enriching and developing China's sci-tech thought bank, technology bank, and talent bank, and forming scientific evaluation standards based on big data analysis to enhance China's discourse power on the global sci-tech stage [4].

In May 2022, the General Office of the Communist Party of China Central Committee and the General Office of the State Council issued the *Opinions on Promoting the Implementation of the National Cultural Digitalization Strategy*, requiring all localities to conscientiously implement it in light of actual conditions. The goals are to basically complete the construction of cultural digital infrastructure and service platforms by the end of the 14th Five-Year Plan period, forming an online-offline integrated and three-dimensionally covered cultural service supply system; and to fully establish a logically associated, physically distributed, rapidly linked, efficiently searchable, key-integrated, and comprehensively shared national cultural big data system by 2035, promoting a panoramic presentation of Chinese culture and achieving universal sharing of Chinese cultural digitalization achievements [5]. Digitalization has become a major national development strategy that can give rise to new forms of national cultural security, making the development of the digital cultural industry the main front for safeguarding national cultural security [6].

Currently, China is a major producer of academic research papers and a major purchaser of global database resources. High-level research achievements are valuable cultural assets, and high-quality journal resources constitute the grand vision of Digital China. The construction of an integrated cultural resource big data platform is reflected in three aspects: first, building a cultural resource big data platform under the data 3.0 mindset aligns with national development strategic requirements; second, it meets the practical needs of cultural self-development; and third, resource integration based on radio and television networks provides the foundation for constructing a data 3.0 cultural resource big data platform [7]. As one of the important dissemination and service platforms for Chinese academic journals, the Chinese Journal Service Platform has developed rapidly since its launch in 1989. By 2021, the platform had included over 15,000 Chinese journals with a total of more than 70 million documents, updating nearly 4 million articles annually, providing strong support for citation retrieval and sci-tech novelty searches. The platform covers all disciplines, offering various full-text access methods including online reading, PDF download, HTML reading, OA linking, and document delivery, with powerful literature re-

trieval and resource guarantee capabilities that effectively ensure users' full-text access. Connecting the academic journal field to the national cultural dedicated network and integrating academic journal data service platforms into the national cultural data service platform will break bottlenecks, achieve interconnectivity, and promote the development of cultural data services.

In this context, promoting the construction of academic journal data service platforms under the guidance of the national cultural industry digitalization strategy is both timely and far-reaching. Currently, domestic journal databases such as CNKI, VIP, Wanfang Data, and Chaoxing Discovery have been established. The Chinese Journal Service Platform launched by VIP Information Co., Ltd. has become an extremely important academic resource infrastructure in China' s education and research fields, relying on the data support of the *Chinese Sci-Tech Journal Database*. The author fully recognizes the value of academic journal data service platform construction in the new era, objectively analyzes the problems it faces, and systematically proposes strategies for its development. Journal publishers should adopt a forward-looking perspective and vigorously promote the construction of academic journal data service platforms to enhance China' s advantages in academic research resources and accelerate the building of a world-class journal power. Under the guidance of the "National Cultural Industry Digitalization Strategy," we must continuously advance the construction of academic journal data service platforms, broaden our thinking, integrate resources, improve mechanisms, and strive to forge a path toward prosperity and development of China' s journal industry with new era characteristics.

## 2. Value of New Era Academic Journal Data Service Platform Construction

Currently, the outflow of outstanding Chinese academic papers remains difficult to curb, and our dependence on foreign digital publishing platforms causes us to lose control over high-quality achievements and data resources. A major reason for this is that the influence of Chinese academic journals remains insufficient and the construction of academic journal data service platforms lags behind [7]. In China, academic journal data service platform construction is still in its preliminary stage, with many imperfections in practice. In the new era, vigorously promoting academic journal data service platform construction will facilitate the accelerated development of cultural data service platforms, drive the digital transformation and upgrading of academic journal data, and foster new scenarios for digital cultural consumption of journals. We must continuously strengthen awareness of academic journal data service platform construction, improve management and operation levels, achieve efficient search and comprehensive sharing, and strive to achieve good economic, social, and cultural benefits. Against the strategic backdrop of national digitalization, informationization development, and the national cultural industry digitalization strategy, digital journal construction has become an inevitable choice.

## 2.1 Facilitating Accelerated Construction of Cultural Data Service Platforms

Strengthening academic journal data service platform construction in the new era facilitates the accelerated development of cultural data service platforms. The advancement of academic journal data service platform construction involves a series of national development strategies in recent years, which provide directional guidance for China's cultural construction in the new period. Currently, domestic journal databases such as CNKI, VIP, and Wanfang Data have been established, and journal digital publishing relies on the support of these academic journal data service platforms. The Chinese academic journal big data service platform uses the *Chinese Library Classification* (5th edition) as the standard for data indexing and classifies content according to 35 first-level disciplines and 457 second-level disciplines to meet the needs of users in various fields for Chinese journal services, with daily updates on the central website that greatly promote the digital transformation and upgrading of academic journal data. Some digital resource platforms have launched data analysis and retrieval functions, recommending relevant content based on users' research fields and needs, which greatly improves efficiency. Through continuous market refinement and the continuous improvement of academic journal databases, we can gradually establish a distinctive academic journal data service platform based on the national cultural industry digitalization strategy, vigorously promoting the digital transformation and upgrading of China's journal data and making due contributions to building a strong cultural nation.

## 2.2 Driving Digital Transformation and Upgrading of Academic Journal Data

Strengthening academic journal data service platform construction in the new era drives the digital transformation and upgrading of academic journal data. In promoting journal industry development, building academic journal data service platforms represents an important pathway to inject new momentum into the national cultural industry digitalization strategy through digital technology and development concepts. The Chinese Journal Service Platform actively promotes the inclusion of core journals, achieving a 100% inclusion rate for Peking University core journals (2017 edition), CSSCI journals (2019-2020), and CSCD journals (2019-2020). Some digital resource platforms have launched data analysis and retrieval functions, recommending relevant content based on users' research fields and needs, which greatly improves efficiency. Through continuous market refinement and the continuous improvement of academic journal databases, we can gradually establish a distinctive academic journal data service platform based on the national cultural industry digitalization strategy, vigorously promoting the digital transformation and upgrading of China's journal data and making due contributions to building a strong cultural nation.

### 2.3 Fostering New Scenarios for Academic Journal Digital Cultural Consumption

Strengthening academic journal data service platform construction in the new era fosters new scenarios for academic journal digital cultural consumption. Academic journal data service platforms possess unique advantages in providing comprehensive services, with increasingly broad application scopes and fields in recent years. According to the overall framework for digital journal construction and numerous referenceable digital technology application scenarios, we must vigorously develop the digital economy. The State Council's *14th Five-Year Plan for Digital Economy Development* requires cultivating national digital consumption awareness and habits. According to data from Tencent Research Institute, China's digital cultural consumption has initially formed a "cross-shaped highland" and "two major growth belts." The "cross-shaped highland" refers to the "grand cross" formed by five major urban agglomerations—Beijing-Tianjin-Hebei, Yangtze River Delta, Pearl River Delta, Chengdu-Chongqing, and the middle reaches of the Yangtze River—spanning eastern, central, western, and northern-southern regions, with digital cultural consumption accounting for 54.13% of the national total. The "two major growth belts" refer to the eastern coastal region and the Yangtze River Economic Belt, with average digital cultural consumption growth rates of 2.05 times and 3.43 times the national average, respectively.

Digital journal publishing should adhere to correct publishing orientation, industrial intelligence, and governance modernization, while maintaining development principles. With orientation as the guide, we should promote the unity of social and economic benefits; with content construction as the foundation, we should form new development momentum; with intelligence as the direction, we should seek new development advantages; and by coordinating market and government roles, we should build a new development pattern [9]. By fully constructing new scenarios for journal digital cultural consumption, such as digital reading, digital collections, and digital interactive displays, we can enhance the participation of all parties throughout the process and continuously improve the effectiveness of journal digitalization. We should strive to broaden distribution channels for journal digital content, strengthen precise matching, fully demonstrate value, continuously develop new users, and expand the digital consumer base. Strengthening the analysis and forecasting of journal digital consumption demand, we should vigorously tap the potential of digital consumption and explore integrated, platform-based, and scenario-based value-added services. Through digital empowerment, we can create new hotspots for journal digital cultural consumption, transform consumption scenarios and models, continuously expand the scale of journal digital business, and continuously enhance the level of journal digital consumption.

### 3. Problems Facing New Era Academic Journal Data Service Platform Construction

Promoting academic journal data service platform construction in the new era presents both opportunities and challenges. In terms of opportunities, China is rich in academic journal data resources, with huge market potential and broad development space. In terms of challenges, current development lags behind that of developed foreign countries, with obvious gaps and difficulties in transformation and upgrading. Problems in China's public digital cultural services include: first, an incomplete digital cultural service network; second, unbalanced regional development of public digital cultural service resources; third, the need to strengthen public digital cultural service effectiveness; and fourth, the failure to effectively connect public digital cultural services with public demand [10]. Problems facing new era academic journal data service platform construction include unclear positioning and lack of top-level design; restricted dissemination methods and lack of systematic support; and low resource utilization and lack of unified management. To address these issues, we must construct a comprehensive architecture for academic journal data service platform construction from a forward-looking perspective, promote it systematically, and strive to achieve leapfrog development and overtaking on curves.

#### 3.1 Unclear Positioning and Lack of Top-Level Design

During the digital transformation of journals, unclear positioning remains a problem, primarily due to the lack of top-level design. Because academic journal data service platforms involve numerous types of content and uneven data accessibility, national and systematic digitalization construction faces significant challenges. Digital journals differ from traditional journals, requiring management of the entire process from pre-production to post-production, with more uncertain content dissemination methods. Many journals simply rigidly transform the print publishing model into a combined print-digital model, following popular trends without developing their own characteristics. Most journal publishers have not conducted digital positioning that suits their actual circumstances, resulting in superficial digital transformation that is not conducive to long-term development. Some publishers, constrained by scale, strength, funding, and talent, can only rely on development channels built by other large digital platforms and lack independent innovation. With the development of integrated media, journal publishers should pursue comprehensive rather than one-directional reform. We must strive to do well in the top-level design of academic journal data service platforms, forming a large system framework at the national level and small system frameworks at the journal publisher level, with precise positioning, mutual mapping, interconnectivity, distinctive features, accelerated dissemination, value creation, and leapfrog development. We should encourage diverse entities to jointly participate in academic journal data service platform construction, support various legal entities and individuals in establishing "data supermarkets" on the platform, and conduct data transactions in

accordance with laws and regulations to enhance the level of academic journal digital consumption [11].

### **3.2 Restricted Dissemination Methods and Lack of Systematic Support**

In recent years, as reading habits have changed and demands for convenience have increased, the dissemination of print journals has become increasingly pessimistic. For example, in 2018, China published 10,139 journal titles with an average print run of 12,500 copies per issue, total print runs of 123.31 million copies per issue, and total prints of 2.292 billion copies. While the number of titles increased by 0.09% compared to 2017, the average print run per title decreased by 7.3%, average print runs per issue decreased by 5.76%, and total prints decreased by 8.03%. By 2019, total prints fell another 4.48% compared to 2018, with academic journals showing an even more pronounced decline [12]. Although journal digital transformation has been advocated and has achieved certain results, dissemination methods and speed remain restricted, lacking systematic support that greatly constrains rapid journal dissemination. The digital era has given rise to new media ecosystems, making information content production and dissemination more diverse and driving journal publishing institutions to transform from journal publishing to integrated content service publishing [13]. Strengthening cooperation with new media platforms, we should promote journal articles through Weibo, WeChat, forums, Zhihu, and other channels, pushing links to academic journal network platforms via WeChat Official Accounts and Moments to increase online exposure and enhance visibility and influence. We can also leverage self-media channels such as Douyin, Kuaishou, Douban, and WeChat Channels to promote journals, enhance user stickiness, and further improve journal digitalization levels. However, media big data inevitably contains certain biases, and promotional efforts vary across regions, introducing errors that require further verification during implementation. Media integration is an important pathway to promote journal digital transformation, requiring multi-channel and multi-method approaches to enhance dissemination influence, exert combined effects, and form systematic support.

### **3.3 Low Resource Utilization and Lack of Unified Management**

Currently, China's journal data service platforms suffer from low resource utilization and lack effective unified management. According to SCI database statistics, China has ranked second in the world in SCI paper publications for ten consecutive years. In 2020, China published 571,300 SCI papers, while the United States published 577,400. From 2012 to 2021, Chinese academic researchers published a cumulative total of 3.397 million SCI papers. As of May 2021, China's 2021 paper collections have surpassed the United States to become number one, with continuously improving quality and citation rates, demonstrating strong momentum in China's academic research development [14]. Despite being a major producer of academic research papers, China sees large amounts of database

resources left idle with generally low utilization rates. As a major purchaser of global database resources, China's existing academic journal database resources cannot meet its own development needs. Academic journal big data businesses mainly provide resource management, requiring visual display and operation. Due to differences in underlying frameworks and operation methods, unnecessary investment and losses can easily occur. Addressing the existing problems in academic journal big data platforms requires timely correction and continuous improvement. Based on actual circumstances, we must strengthen unified management, enhance integration capabilities, form core competitiveness, improve resource utilization, and maximize the utility of academic journal data service platforms. Simultaneously, we should strengthen evaluation of academic journal data service platform construction, focusing on content comprehensiveness and equal regional coverage to avoid inconsistent data accessibility across different regions. Academic journal resource data should be legally opened to the public, prioritizing social benefits and fully leveraging both physical and online presence.

#### **4. Strategies for New Era Academic Journal Data Service Platform Construction**

Vigorously promoting academic journal data service platform construction carries epoch-making significance. The accessibility interaction design methods for academic journal big data platforms include: first, content accessibility based on data correlation and visualization; second, situational accessibility based on immersive narrative and embodied experience; and third, interactive accessibility based on distributed participation and crowdsourced innovation [15]. In the big data era, we must actively transform journal publishing concepts, leverage big data methods, and strive to bring disruptive influence to journal publishing in terms of content logic, carrier dissemination methods, and morphological presentation. Strategies for new era academic journal data service platform construction include: focusing on journal market big data to enhance relevance; analyzing journal social big data to enhance distinctiveness; screening journal academic big data to enhance professionalism; tracking journal innovation big data to enhance pertinence; and integrating journal cooperation big data to enhance scale. We must deeply understand the connotation of academic journal data service platform construction, using awareness to promote quality, efficiency, market expansion, and development. We should control data collection and processing, transaction and distribution, transmission and storage, and data governance to ensure database resource stability and reliability, accelerating the pace of academic journal data service platform construction.

##### **4.1 Focusing on Journal Market Big Data to Enhance Relevance**

Focusing on journal market big data means understanding which journals are popular, continuously improving the relevance of academic journal data service platform construction by adjusting journal publishing structures. Strengthen-

ing market research, we should continuously summarize experience from established academic journal data service platforms, fully consider real market demands, and timely adjust journal publishing structures to enhance user experience and satisfaction. For example, based on market research, we can construct digitally interactive display scenarios through the “Internet Plus Digital Journals” approach, using modern technological means to comprehensively and three-dimensionally showcase the intellectual charm of academic journals. According to readers’ needs and preferences, we should innovate journal presentation forms, transforming dull text displays into dynamic audio-visual presentations to enhance memory and create different experiences. Establishing academic journal data service platform apps, WeChat Official Accounts, and mini-programs, we can promote through multiple channels including computers, mobile phones, and tablets, forming interactive experiences such as five-sense tours, cloud tours, and immersive tours, constructing virtual scenes to accelerate dissemination speed and improve usage effectiveness. Exploring multi-network distribution, multi-channel release, and multi-terminal presentation of academic journal digital products, we should promote the online transformation of journal presentation forms and dissemination, continuously expanding the online space for academic journal digital consumption. Closely connecting with internet consumption platforms, we should provide services such as search and query, identification and resolution, matching and transaction, and settlement and payment for academic journal resource data, offering multi-network and multi-terminal distribution services to promote academic journal digital consumption. According to market changes and customer needs, we should continuously improve journal publishing structures, consolidate journal content, enrich presentation forms, align with journal data service platforms, accelerate platform construction speed, and better gain market recognition.

#### 4.2 Analyzing Journal Social Big Data to Enhance Distinctiveness

Analyzing journal social big data means understanding which journals are hot topics and focal points, continuously enhancing the distinctiveness of academic journal data service platform construction by adjusting journal publishing priorities. According to the development trends of academic journal databases, we should closely follow academic research frontiers, continuously optimize inclusion structures, enable outstanding journals to stand out, increase reading and download rates, and expand influence. For example, Wenzhou City in Zhejiang Province has actively built “City Study Rooms,” creating a pioneering public reading space to promote nationwide reading. Through high-quality spaces, modern configurations, and embedded layouts, the initiative helps people reduce reading costs and increase reading frequency. By the end of 2021, Wenzhou had established 112 “City Study Rooms,” receiving a total of 14.0013 million readers and becoming the nation’s first “National Reading Demonstration City” [16]. The Wenzhou Library drafted the *City Study Room Service Standards*, incorporating outstanding print and electronic journals as important content for nationwide reading, rationally utilizing digital reading cloud resources, and con-

tinuously improving the utilization rate of journal data service platforms with remarkable results. Continuously consolidating the informationization foundation of journals, we should implement digital journal strategies, accelerate the comprehensive and deep integration of modern information technologies such as big data and artificial intelligence with journal development, and promote the distinctive development of academic journal data service platforms under new era requirements. Strengthening the analysis of journal social big data, we should fully leverage the diffusion effects of information technology, the spillover effects of information and knowledge, and the inclusive effects released by digital technology to fully demonstrate distinctive features, enhance reader satisfaction, accelerate journal modernization, prosper cyber culture, and build a new pattern of journal digitalization development.

### **4.3 Screening Journal Academic Big Data to Enhance Professionalism**

Screening journal academic big data means understanding which journals possess academic value, continuously enhancing the professionalism of academic journal data service platform construction by keeping abreast of cutting-edge journal publishing. Academic journals are media that record, disseminate, and popularize academic research achievements and possess strong professionalism. High-quality academic journals play crucial roles in elevating theoretical standards, cultivating moral character, and guiding practical work, and represent an important manifestation of national research strength. To improve journal academic quality, we must screen journal academic big data to excavate valuable journals, such as Peking University core journals, CSSCI journals, and CSCD journals. For example, the Chinese Journal Service Platform actively promotes the inclusion of core journals, achieving a 100% inclusion rate for Peking University core journals (2017 edition), CSSCI journals (2019-2020), and CSCD journals (2019-2020). Adhering to academic innovation and digital reform, we should take “content is king” as the winning formula to create authoritative and professional digital journals. We should maintain journal characteristics and positioning, pursue excellence and intensive cultivation, and meet the new missions entrusted to journals by the new era. Properly handling the dissemination of digital journals through new media, we should avoid entertainment and fragmentation, respect the scientific spirit, and excavate academic value. During digital dissemination, we should emphasize academic rigor, demonstrate value, and achieve balance. Fully utilizing the characteristics of new media, we should change the situation of “good wine needs no bush” and actively “go out” to promote linked and interactive dissemination. Actively fostering a good academic atmosphere and building a knowledge service-oriented society, we should continuously enhance the professionalism of academic journal data service platform construction and improve China’s journal industry’s international influence in the world through multi-channel, multi-faceted, and multi-method approaches, fully demonstrating cultural soft power.

#### 4.4 Tracking Journal Innovation Big Data to Enhance Pertinence

Tracking journal innovation big data means understanding new trends in innovation both domestically and internationally, continuously enhancing the pertinence of academic journal data service platform construction by promoting journal publishing innovation. During the implementation of the national cultural industry digitalization strategy, we should timely evaluate the cultural digitalization construction situation across the country, understand local construction levels, learn from each other's strengths, and mutually improve. Combining online and offline approaches, academic journal digital consumption spaces extend from traditional spaces to virtual, temporary, and innovative spaces, forming powerful dissemination momentum. For example, by building digital reading consumption scenarios under digital publishing and tracking trends in journal innovation big data, we should strive to transform from offline publishing institutions to online knowledge service institutions, promoting the value realization of digital content. According to the *2021 China Digital Reading Report*, China's digital reading user scale exceeded 500 million in 2021, ranking among the top in the world. We should systematically digitize the more than 200,000 books and nearly 10,000 journals published annually in China to form digital publishing products such as e-books and digital journals, accelerating dissemination speed and enhancing user stickiness. Through timely inspection, feedback, and comparative analysis, we should promptly control deviations and continuously summarize experience in practice to form an inexhaustible driving force for innovation. Establishing academic journal property rights trading institutions with online transaction functions, we should promote the integration and innovation of identification resolution with blockchain, big data, cloud computing, and other technologies, providing professional services for the confirmation, matching, evaluation, transaction, and distribution of academic journal resource data and digital content, and fully leveraging the role of academic journal data service platforms. By timely tracking innovations in journal databases and scientifically applying appropriate management methods and technical means, we should targetedly enhance the innovation level of academic journal data service platforms based on user acceptance and satisfaction.

#### 4.5 Integrating Journal Cooperation Big Data to Enhance Scale

Integrating journal cooperation big data means understanding industry cooperation information, continuously enhancing the scale of academic journal data service platform construction by integrating journal publishing resources. Currently, digitalization, informationization, and intelligence technology innovation are unprecedentedly active, continuously spawning new technologies, products, and models. This both constitutes the necessity of digital journal construction and provides excellent opportunities for it. For example, by deeply exploring user needs and building diversified journal matrices, we can achieve interconnectivity among existing academic journal data service platforms and build a unified national journal data service market. Seizing the development trends of inte-

grated media and digitalization, we should be user-oriented and service-centered, building official websites, apps, WeChat Official Accounts, and mini-programs for journal data service platforms, enabling users to read anytime and anywhere. Drawing on mainstream media practices, we should adopt dissemination methods such as hyperlinks, source programs, audio, and video to form interactive communication, collect user feedback, and continuously improve. Linking with public cultural platforms, we should expand database scale, build a comprehensive digital journal dissemination matrix, achieve resource sharing, and effectively save costs. Addressing the problems of numerous platform construction contents, complex data sources, and uneven data accessibility across regions, we should gradually form a mainstream framework system based on mainstream and authoritative big data. Continuously extending the academic journal data supply chain, we should promote data sharing of journals among different entities, platforms, and levels, achieving the openness, marketization, and specialization of associated data, as well as the professionalization, socialization, and industrialization of journal data deconstruction, reconstruction, and presentation. Strengthening cooperation, removing institutional barriers, establishing academic journal digitalization standard systems, improving the dynamic mechanism for academic journal resource data sharing, activating academic journal intellectual resources, and strengthening full-chain supervision of academic journal digitalization, we should continuously expand the scale of academic journal data service platform construction while ensuring data security, promoting the upgrading and development of the journal industry.

Strengthening interaction among various academic journal databases and integrating various resources to achieve interconnectivity will continuously expand the scale of academic journal data service platform construction and strive to create greater value [17].

## Conclusion

Vigorously building cultural data service platforms represents an inevitable trend in the development and growth of China's cultural sector. With the implementation of the national cultural industry digitalization strategy, China's cultural industry will increasingly enter the international cultural market, striving to win a place in the fiercely competitive global cultural market. In this context, as an important component of cultural data service platforms, the construction of academic journal data service platforms becomes increasingly urgent. In the new era of building socialism with Chinese characteristics, strengthening academic journal data service platform construction is both necessary and feasible. Journal publishers can start from their actual circumstances to participate in academic journal data service platform construction, enhance their influence in the journal industry, continuously improve digitalization levels, strive to achieve leapfrog development, and forge a path toward academic journal data service platform construction with new era characteristics. This will accelerate the building of China into a world-class journal power and consequently speed up

the process of building a strong cultural nation.

## References

- [1] Song Wei. Digital Media Professional Teaching Innovation Strategies Based on Industry-Education Integration [J]. *China Media Technology*, 2021(11): 130-132.
- [2] Luo Shijian. Research on the Digitalization Strategy of Cultural Industry in the New Era [J]. *Packaging Engineering*, 2021(18): 63-72, 8.
- [3] Su Xiaoming. Promoting the Deep Integration of Digital Economy and Qinghai Clean Energy Development [J]. *Communication Enterprise Management*, 2021(12): 6-9.
- [4] Wang Jihong, Luo Zhenfu, Li Jinqi, et al. Connotation and Measures for Cultivating World-Class Sci-Tech Journals with Chinese Characteristics [J]. *Chinese Journal of Scientific and Technical Periodicals*, 2020(1): [page range not provided in original].
- [5] National Library of China Research Institute. General Office of the CPC Central Committee and General Office of the State Council Issue the “Opinions on Promoting the Implementation of the National Cultural Digitalization Strategy” [J]. *Journal of the National Library of China*, 2022(4): 49.
- [6] Li Lin. Digital Cultural Industry and National Cultural Security: Reflections Based on the National Digitalization Strategy [J]. *Publishing Wide Angle*, 2021(3): 6-10.
- [7] Li Jun. Where Does Confidence Come From? Where Does Integrity Lie? [J]. *Publishing and Printing*, 2021(3): [page range not provided in original].
- [8] Zhou Yaolin, Liu Han. Research on Cultural Big Data Application from the Perspective of Data 3.0 Thinking [J]. *Study and Practice*, 2019(9): 118-127.
- [9] Zhang Xinxin. Discussion on the Development of Digital Publishing During the 14th Five-Year Plan Period from the Perspective of Publishing Industry Digitalization Strategy [J]. *Science-Technology and Publication*, 2021(1): 65-76.
- [10] Zhang Shuchen, Chen Wei, Gao Changyuan. Research on the Construction of Public Digital Cultural Service Cloud Platform Under Big Data Environment [J]. *Information Science*, 2021(4): 112-118.
- [11] Luo Qiong, Qin Jun, Deng Lei. Application and Reflection of Intelligent Media Assets in Media Convergence [J]. *China Media Technology*, 2022(7): 115-118.
- [12] Wang Feiyu. Analysis on the Digital Transformation Strategy of Academic Journals [J]. *Journal of News Research*, 2022(1): 175-177.

[13] Wen Ming, Wu Chun' e. Timeless and Ever-New: Re-discussing the Value, Problems, and Paths of Classic Book Publishing [J]. Science-Technology and Publication, 2021(10): 84-87.

[14] Han Fang. Research on Academic Journal Review Strategies from the Perspective of Forging a Strong Sense of Community for the Chinese Nation [J]. Yinshan Academic Journal, 2022(4): 7-12.

[15] Guo Yinman, Ji Tie, Min Xiaolei. Research on Accessibility Interaction Design of Cultural Big Data Public Service Platform [J]. Art and Design Research, 2021(5): 50- [page range incomplete in original].

[16] Han Han. Public Libraries Create a Scholarly Society and Contribute to a Strong Cultural Nation [EB/OL]. [http://life.china.com.cn/web/rdgz/detail2\\_{{2022}}\\_{{05}}/11/34028012022-05-11/2022-07-](http://life.china.com.cn/web/rdgz/detail2_{{2022}}_{{05}}/11/34028012022-05-11/2022-07-) [date incomplete in original].

[17] Li Li. Analysis of Innovative Directions for News Communication in the Big Data Era [J]. China Media Technology, 20212(6): 38-40, 43. [Note: “20212” appears to be a typo for “2021” in original].

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

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