

The Future and Development of Post-Print Publishing in the Era of Big Data

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Abstract

Big data represents both a current state of information and a technical means, as well as a directional mindset for development. In today's era of information explosion, big data technology can assist the publishing industry in better clarifying people's genuine reading needs, thereby enabling publishers to accurately identify their positioning and select more appropriate and precise publishing content. In the contemporary world, scientific and technological progress is advancing rapidly, particularly with the swift development of information technology and network technology, which has exerted profound influences on global political, economic, military, scientific, technological, cultural, and social domains. This demands our close attention. Regarding information networking, the nation's fundamental policy is to actively promote development, strengthen management, maximize benefits while minimizing harms, harness it for our advantage, and strive to secure an active position in the evolution of global information networking. We must seize this opportunity to accelerate the advancement of our national information and network technologies. This paper, against the backdrop of big data, elaborates on the impact of big data on China's publishing industry and further analyzes future development trends, aiming to provide insights and references for achieving high-quality development and successful transformation and upgrading of China's publishing industry.

Full Text

Abstract

Big data represents both a current state of information and a technical methodology, as well as a conceptual direction for development. In today's era of information explosion, big data technology can help the publishing industry better clarify people's genuine reading needs, enabling publishers to accurately identify their positioning and select more appropriate and precise content. As science

and technology advance rapidly—particularly information technology and network technology—their profound impact on politics, economy, military affairs, science, technology, culture, and society demands our close attention. The nation's fundamental policy on information networking is to actively develop, strengthen management, maximize benefits while minimizing harms, and leverage these technologies for our own purposes, striving to gain an active position in global information network development. We must seize this opportunity to accelerate the development of China's information technology and network technology. Against the backdrop of big data, this paper elaborates on the influence of big data on China's publishing industry and further analyzes future development trends, hoping to provide insights for achieving high-quality development and successful transformation and upgrading of China's publishing sector.

Keywords: big data; publishing industry; development trends

2. The Impact of Big Data on Publishing

2.1 Achieving Data Sharing and Interconnection

Big data technology enables data sharing and interconnection, allowing existing information to be integrated. Through the internet, previously dispersed information can be centralized, organized, and summarized, making it more usable. Furthermore, it enables in-depth data mining and analysis, presenting publishing information in data form and integrating computer, communication, network, storage, and database technologies throughout the entire publishing process, thereby improving industry efficiency [4].

2.2 Realizing Digital Development in Publishing

With the development of electronic technology, digital production and publishing have become the primary direction for the publishing industry. E-books have become normalized in daily life, with platforms like Dangdang and Amazon selling electronic versions. The market now offers both complete e-books and individual articles for sale, demonstrating diverse formats. In recent years, digital publishing revenues have shown promising growth. Western countries started digital publishing earlier than China and have accumulated valuable experience, achieving notable results in foundational work and maintaining overall superior comprehensive strength. Compared with Western nations, China's digital publishing enterprises require further development.

2.3 Transforming Existing Business Models

The emergence of big data technology has impacted traditional publishing business models. In the big data context, the publishing industry must actively explore new business models to meet social development and reader demands. First, publishing enterprises must accurately grasp big data from the publishing market, deeply analyzing customer habits and preferences to directionally sat-

isfy different customer groups. This transforms traditional universal marketing into targeted precision marketing, providing different personalized content for different customers and promoting improved management while keeping pace with technology and the times.

2.4 Driving Diversified Product Development

Reader demands evolve with the times. In today's civilized society, personalization, customization, and proactivity have become major characteristics of contemporary readers. With the application of big data technology in publishing, future publishing dissemination will gradually develop toward greater personalization. Big data technology can record and analyze users' reading experiences and preferences, thereby identifying their reading tendencies and delivering precise reading recommendation services based on these analyses. NetEase News exemplifies this approach, utilizing Hadoop, Spark, Storm computing platforms along with cache clusters, search clusters, message queues, and NoSQL software to track and search user information and access trajectories across multiple dimensions, further achieving personalized content delivery.

3. Future Development Trends in Publishing

3.1 Targeted Content and Planning

Cultural content is the most fundamental aspect of publishing activities and the foundation for industry development. How to select content, edit works, and choose dissemination channels is particularly important. Platform reforms and technological advances have changed cultural information dissemination methods, making channels more convenient and efficient than before. Traditional publishing has long been constrained by difficulties in content selection, long creative cycles, and lack of market feedback mechanisms. When selecting publishing content, most decisions traditionally relied on editors who used accumulated experience, market research, and current trends to select themes after a series of screenings and verifications. This traditional method has obvious drawbacks: first, it cannot effectively communicate with readers, causing deviations from mainstream trends and resulting in wasted costs [6]; second, it suffers from strong subjectivity, heavily influenced by editors' aesthetic and value judgments, causing some valuable information or topics to be overlooked. However, big data technology has effectively solved this problem. Currently, the publishing industry has begun referencing reader demand big data when selecting content, drawing on both accumulated production data and nationwide interest trends. This represents tremendous convenience, making publishing content and planning more targeted, and in the future, more enterprises will use big data for content planning.

3.2 Precision Marketing Models

Big data technology has transformed publishing enterprises' marketing models. Big databases provide publishing institutions with needed data resources—such as reader attention information, habits, and preferences—thereby influencing marketing approaches. The most typical example is the success of “Toutiao,” which relies on powerful information analysis technology to analyze different users, capture their reading habits, and provide targeted content to satisfy each user's personalized needs. Traditional personalization marketing targeted groups with unified characteristics, but with big data support, this personalization can be refined to satisfy each individual, significantly improving precision [7]. Professional publishers like Reed Elsevier and Springer Science+Business Media also use big data technology to track and mine reader content and topics of interest, integrating user information and achieving success through database creation and analysis.

3.3 Personalized Distribution and Dissemination

Emerging media is a product of the big data era, and much media information has begun diversifying to stand out among numerous new media types. The publishing industry must similarly adapt to new media development needs by reasonably integrating resources such as bestsellers and branded books, combining paper books, e-books, animation, and games [5] to innovate diversified products that strengthen publishing competitiveness.

Conclusion

In today's era of information explosion, big data technology can help the publishing industry better clarify people's genuine reading needs, enabling publishers to accurately identify their positioning and select appropriate, correct content. In summary, big data is a current state of information, a technical methodology, and a conceptual direction for development. Internet technology has gradually popularized digital reading, and publishing practitioners must recognize the significance of big data for the future development and transformation of publishing. Beyond using big data technology to track reader experiences and demands, they must uphold the philosophy of prioritizing user needs, championing content quality, and promoting industry through technology to enable better publishing industry development.

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