

## Research on the Development Status and Issues of Digital Publishing in the Big Data Era (Post-print)

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### Abstract

With the continuous development of information technology and social media, big data has emerged as a prominent “buzzword” in contemporary societal development. Big data embodies not only vast amounts of information and rapid information transmission speeds, but also signifies the economic value concealed within information. Digital publishing represents an emerging phenomenon arising from Internet technology development. As people’s reading habits have evolved, digital publishing has gradually become the dominant operational model within the publishing industry. However, given that the application of big data remains in its nascent stage, digital publishing inevitably encounters certain problems. Therefore, this paper examines the development status and problems of digital publishing in the big data era, proceeding from the fundamental concepts of this era.

### Full Text

## Research on the Development Status and Problems of Digital Publishing in the Big Data Era

**Abstract:** With the continuous development of information technology and social media, “big data” has become a prominent buzzword in contemporary social development. Big data embodies not only massive volumes of information and rapid dissemination speeds, but also significant economic value hidden beneath the surface. Digital publishing, an emerging phenomenon arising from internet technology, has gradually become the dominant operational model in the publishing industry due to shifting reading habits. However, as our utilization of big data remains in its nascent stages, digital publishing inevitably encounters various challenges. This paper therefore examines the development status and

problems of digital publishing in the big data era, beginning with fundamental concepts of this new epoch.

**Keywords:** Big Data Era; Digital Publishing; Development Status; Problems

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## Introduction

In 2011, the renowned global consulting firm McKinsey & Company published a report titled “Big Data: The Next Frontier for Innovation, Competition, and Productivity,” which argued that data had permeated every industry and business function, gradually becoming a crucial factor of production. The utilization of massive datasets, the report suggested, heralded a new wave of productivity growth and consumer surplus. This report explicitly introduced the concept of “big data” and elaborated on its value in economic and social life. Since then, “big data” has not only emerged as a popular buzzword but also become a fundamental condition for modern social development. Although academia remains divided on the precise definition of big data, there is consensus on its basic characteristics: large volume, diverse types, high velocity, and high value. Digital publishing represents the primary direction for the publishing industry’s development in the big data era, and in this new market environment, it has subverted traditional publishing models, presenting new development trends.

## 1. Development Status of Digital Publishing in the Big Data Era

### 1.1 The Rise of Digital Reading

With the advent of the big data era and the development of mobile intelligent terminal technology, digital reading has gradually become the primary reading method for the public. According to the *2016 China Mobile Reading Report*, approximately 90% of Chinese individuals aged 18-29 engage in digital reading. This massive demand for digital reading has naturally injected strong momentum into digital publishing. Currently, in both domestic and international markets, online e-book platforms such as Amazon and JD.com demonstrate robust growth momentum. Furthermore, digital publishing has begun to break away from paper-based books, achieving in-depth development in applications and gradually forming a new economic growth point.

## 1.2 Technological Development

The continuous updating of digital publishing technologies in the big data era has provided new impetus for the transformation of the publishing industry. Driven by 4G technology, HTML5 has achieved technical integration with multiple reading browsers, creating new opportunities for digital publications that incorporate rich media content such as text, images, audio, and video. Simultaneously, updates in collaborative editing technology have enabled dynamic management of editing, proofreading, and management processes, optimizing digital publishing workflow efficiency. In 2013, MPR technology was officially launched in the market after trials at multiple publishing groups. Serving not merely as a technology but as a new type of service content, MPR technology has propelled digital publishing's transformation from technology-centric to content-centric approaches.

## 1.3 Media Convergence Trends

Media convergence has become the primary trend in new media development, and digital publishing naturally benefits from this context. In digital publishing, media convergence manifests in two ways. On one hand, it appears as multi-terminal integration of digital publications, where technological innovation enables format sharing across platforms and expands presentation methods. On the other hand, it appears as content fusion, where diversified presentation of text, images, audio, and video enhances the readability of published content.

## 2. Problems in Digital Publishing Development

### 2.1 Information Collection Channel Blockages

In the big data era, digital publishing requires massive amounts of information as the basis for publishing decisions. However, for publishers, difficulties in information collection have become a significant constraint on digital publishing. Although the Internet is an information-sharing platform, specialized collection of digital publishing information remains ineffective. Compounding this problem, social networks and e-commerce platforms have not yet established robust information provision and consultation services. Publishers' own information collection channels are relatively limited, and broadband technical constraints further hinder the quality of data collection and management.

### 2.2 Content Quality Issues

In a competitive market environment, only perfect competition with complete information can maximize enterprise benefits. Although the big data era has gradually improved the situation of incomplete market information, from a competitive perspective, digital publishing content still struggles to maintain quality assurance amid monopolistic and disorderly competition. For instance, according to the *2016 China Mobile Reading Report*, China Literature, Qidian Read-

ing, and QQ Reading dominate the online reading market with an absolute advantage, showing monopolistic tendencies. Additionally, some small reading platforms, in their struggle for survival, produce shoddy content that severely impacts the overall quality of digital publishing.

### 2.3 Copyright Protection Challenges

Copyright protection legally respects original works, but the emergence of digital publishing has made it increasingly difficult to define and enforce. In the big data era, the rapid dissemination of information allows original content to spread quickly, causing readers to lose interest through repeated exposure. Meanwhile, as readers' demands for personalized content grow stronger, the development of original literature becomes increasingly challenging. The development of the Internet has created an illusion of free information sharing, and Chinese e-reading users, accustomed to long-term free access, have gradually lost their willingness to pay. In the digital publishing process, many readers would rather forego reading or seek pirated channels than pay for e-reading. This situation is exacerbated by resource sharing, which leads many to ignore copyright ownership—a common phenomenon in China. Some reading platforms, aiming to increase click-through rates, infringe upon copyrights to generate profits. The causes of this situation involve not only illegal actions by publishers but also readers with weak copyright awareness. In response, China has optimized the digital publishing environment from a copyright protection perspective, implementing paid access through membership recharges and upgrades to protect digital publications, while also building new interactive platforms to collect reader information for big data analysis.

### 2.4 Lack of Data Analysis Talent

Big data has only entered the public consciousness in recent years, and thus its development and application still suffer from numerous drawbacks, among which the lack of professional data analysis talent is particularly prominent. In the digital publishing process, only through proper analysis and integration of big data can its decision-making value be realized and the scientific feasibility of digital publishing decisions be ensured. However, most talent in the digital publishing industry has transferred from traditional publishing, lacking both sensitivity to data and professional competence in data analysis. Furthermore, Chinese institutions of higher education have not yet established specialized programs for cultivating big data analysis talent, which constitutes a primary reason for the talent shortage in digital publishing.

### 2.5 Rigid Business Development Thinking

The transformation of business thinking is a prerequisite for promoting digital publishing in the big data era. However, in the current publishing industry, many publishers limit their utilization of data information to the analysis and application of financial data, lacking systematic channels for collecting reader

information and failing to effectively leverage data in the process of determining publishing content. This rigid publishing mindset merely provides a web platform for traditional paper publications without independently realizing the full potential of digital publishing.

### **3. Development Trends**

#### **3.1 Precision Marketing**

The development of intelligent data analysis technologies and the continuous improvement of social network platforms enable enterprises to overcome the drawbacks of generic information collection and target more precise content. In digital publishing, precision marketing serves as the primary means to open up markets. By improving online information collection channels and collaborating with data collection and analysis platforms, publishers can clarify readers' personalized information and use it as the basis for digital publishing, thereby ensuring market share through precision marketing.

#### **3.2 Personalized Platforms**

As the pace of social development accelerates, people's reading time has increasingly become fragmented. How to use e-reading to fill this fragmented time represents not only the root of digital publishing development but also its future direction. In the big data era, readers' demands for personalized reading experiences have grown stronger. Therefore, publishers can, on one hand, optimize reading platform functions to provide readers with more autonomous choices, and on the other hand, combine reader information to recommend personalized content. Furthermore, by utilizing open publishing platforms, publishers can provide readers with opportunities for information sharing.

#### **3.4 Professional Talent Development Prospects**

In the big data era, the quality of professional data analysis talent has gradually become a crucial factor affecting market competition outcomes, and digital publishing is no exception. Increasingly, publishers have begun cultivating specialized data talent or collaborating with professional data analysis institutions to effectively utilize big data in response to market impacts. Additionally, from an educational perspective, publishing programs at Chinese institutions of higher education have consciously begun incorporating digital publishing content, which holds significant importance for promoting the professional and standardized development of China's digital publishing industry.

### **4. Conclusion**

In conclusion, the development of the digital publishing industry in the big data era depends on the broader social environment. While new characteristics will undoubtedly emerge during its development, these represent both opportunities

and new challenges for the publishing industry. At present, China's digital publishing sector faces certain problems in system construction, information channels, talent cultivation, and copyright determination. Therefore, against the backdrop of deepening big data influence, the digital publishing industry should assess the situation, take preventive measures, grasp future development trends, formulate feasible strategies, and drive a complete transformation of the publishing industry's business model.

## References

- [1] Pei Xian. Development Status and Problems of Digital Publishing in the Big Data Era[J]. Youth Journalist, 2017.
- [2] Yan Weina. Research on the Development Status and Problems of China's Digital Publishing Industry[J]. Reform and Opening, 2015.
- [3] Hu Han. Development Trends of the Digital Publishing Industry in the Big Data Era[J]. Communication and Copyright, 2016.
- [4] Li Yunwen. Analysis of the Development Trends of the Digital Publishing Industry in the Big Data Era[J]. Economic Research Guide, 2017.

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