

Strategies for Enhancing the Social Benefits of Publishing Enterprises in the Context of Artificial Intelligence: Postprint

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Abstract

Purpose: To investigate the role of artificial intelligence technology in enhancing the social benefits of publishing enterprises, and to provide theoretical reference and strategic guidance for maximizing these benefits. **Method:** Based on the connotation and policy requirements of social benefits in contemporary publishing enterprises, this study employs literature research, case analysis, and theoretical analysis methods to investigate the specific applications and effects of artificial intelligence technology in publishing enterprises. **Results:** Taking the current state of integrated development between artificial intelligence technology and publishing enterprises as the entry point, this paper analyzes, through specific cases, the role of AI in enhancing the social benefits of publishing enterprises. As a commonly utilized technology in publishing enterprises, AI can not only provide precise strategic positioning for enhancing social benefits, but also assist in improving book quality and brand power, strengthen market monitoring and competitive capabilities, and promote multi-channel integration of social benefits dissemination. **Conclusion:** In the context of artificial intelligence, enhancing the social benefits of publishing enterprises requires efforts in several dimensions: deepening intelligent cultural inclusiveness, meeting diverse social needs, building an intelligent knowledge service ecosystem, enhancing content service value, constructing an intelligent communication matrix, and expanding cultural brand influence. This effectively expands cultural coverage and influence, promotes deep integration between high-quality development of the publishing industry and social spiritual civilization construction, and achieves two-way empowerment between the publishing industry and social civilization progress.

Full Text

Preamble

Exploring Strategies for Enhancing the Social Benefits of Publishing Enterprises in the Context of Artificial Intelligence
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Abstract

[Purpose] This study investigates the role of artificial intelligence technology in enhancing the social benefits of publishing enterprises, providing theoretical reference and strategic guidance for maximizing these benefits. **[Method]** Based on the current connotations and policy requirements of social benefits for publishing enterprises, this paper employs literature research, case analysis, and theoretical analysis to explore the specific applications and effects of AI technology in publishing enterprises. **[Results]** Taking the current state of integrated development between AI technology and publishing enterprises as a starting point, this paper analyzes, through concrete cases, the role of AI in enhancing social benefits. As a commonly used technology in publishing enterprises, AI can not only provide precise strategic positioning for improving social benefits, but also help enhance book quality and brand power, strengthen market monitoring and competitive capabilities, and promote multi-channel integration of social benefit dissemination. **[Conclusion]** In the AI era, to enhance the social benefits of publishing enterprises, efforts should focus on deepening intelligent cultural inclusion to meet diverse social needs, building an intelligent knowledge service ecosystem to elevate content service value, and constructing an intelligent communication matrix to expand cultural brand influence. These measures can effectively broaden cultural coverage and impact, promote deep integration between high-quality development of the publishing industry and social spiritual civilization construction, and achieve mutual empowerment between the publishing industry and social progress.

Keywords: artificial intelligence; publishing enterprises; social benefits; strategies; mutual empowerment

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Main Text

In modern society, the dissemination of culture and knowledge plays a vital role, and publishing enterprises, as important carriers of cultural inheritance

and innovation, hold significant meaning for social progress through the realization and enhancement of their social benefits. For publishing enterprises, social benefits are specifically manifested in book quality, brand power, and overall competitiveness, influence, and credibility. The *Trial Measures for the Evaluation and Assessment of Social Benefits of Book Publishing Units* issued by the Publicity Department of the CPC Central Committee in 2018 clearly states that China's book publishing units must prioritize social benefits, achieve organic unity between social and economic benefits, and promote prosperous and healthy development of the publishing industry. The report of the 20th CPC National Congress further emphasizes the need to adhere to a people-centered creative orientation and produce more outstanding works that enhance people's spiritual strength. Against this backdrop, how to effectively maximize the social benefits of publishing enterprises with the strong support of AI technology has become an urgent issue that demands our direct attention and resolution.

1. Artificial Intelligence and Publishing Enterprises

At the 1956 Dartmouth Conference, American scientist John McCarthy formally introduced the concept of "artificial intelligence" and established its research objectives, marking AI's formal establishment as an independent discipline within computer science [1]. As AI technology has developed, its impact on publishing enterprises has become increasingly profound. In 2019, German management consulting firm Gould Finch collaborated with startup StoryFit and technology company Sourcebooks to utilize AI in building a book content evaluation system, providing new tools and frameworks for content selection and copyright operations while sparking deeper industry reflection on AI applications. In 2020, Fujian Children's Publishing House published *Forest Pictorial*, which extensively employed AI technology across topic planning, editing, and marketing. All 400 images in the book were AI-generated, not only shortening the publication cycle but also gaining market popularity and reader acclaim, with sales exceeding 50,000 copies within six months of launch.

In July 2022, Springer Nature collaborated with Chinese scholars to publish *CRISPR—A Computer-Generated Literature Review*, which integrated 114 papers in the CRISPR field using AI. The electronic edition received 2,700 visits within just four months of launch, demonstrating AI's efficiency in professional literature integration [2]. In December of the same year, Springer Nature developed a polishing tool trained on proofreading data from 750,000 academic manuscripts, which automatically optimizes grammar and wording, significantly shortening publication cycles and reducing manual editing costs. This tool has now been extended to book editing. These innovative practices not only validate AI's powerful effectiveness across different stages of the publishing workflow but also point to diverse directions for technological empowerment across the industry.

Against this backdrop, in 2023, CITIC Press Corporation published *Generative AI: Understanding AIGC in One Book*, and China Translation Corporation pub-

lished *The Era of Large Models*, both created using a model of human framework design combined with AI content generation. Compared with similar books, this approach shortened the creation cycle by 50% and increased sales by 30%. In 2024, academic publishing giant Elsevier integrated generative AI with its literature database to launch the Scopus AI tool, which can generate research insights in real-time based on user queries, increasing literature retrieval efficiency by 70% and driving a fundamental shift in publishing from experience-driven to data-intelligence-driven models. In February 2025, South China University of Technology Press launched China's first autonomous and controllable intelligent digital publishing platform, integrating full-process functions including model training, intelligent proofreading, and digital textbook transactions, achieving full-chain intelligence from topic planning to distribution [4].

As publishing enterprises continue to deepen their exploration of AI applications, an increasing number have recognized that AI is not merely a tool for improving efficiency but a core force driving industry transformation, injecting continuous new momentum and bringing unprecedented development opportunities.

2. The Role of AI in Enhancing Social Benefits of Publishing Enterprises

2.1 AI Provides Precise Strategic Positioning for Enhancing Social Benefits AI data analytics possesses powerful information processing and insight capabilities. By mining and analyzing massive amounts of information—including reader behavior data, interests, purchasing habits, and market trends—publishing enterprises can identify potential customer needs and develop publishing strategies that better align with reader demands and market development trends, achieving a win-win situation for both social and economic benefits. Taking CITIC Press Corporation as an example, in 2022 the publisher conducted deep analysis of multi-channel sales data, social media discussion hotspots, and reading behavior from its proprietary reading app users. The analysis revealed a significant rise in interest among young readers for science fiction and popular science works, with frequent social media discussions on space exploration and AI popularization, while purchasing habits showed a preference for richly illustrated, interactive book designs. Based on these data insights, CITIC Press rapidly adjusted its publishing strategy, heavily investing in the development of science fiction and popular science titles. In content creation, the publisher invited professional science writers and illustrators to present cutting-edge scientific knowledge through vivid graphic combinations. In book design, interactive pop-up pages and fun quizzes were incorporated to enhance reading enjoyment. Simultaneously, personalized promotion plans were developed for social media platforms popular with young people, such as Bilibili and Xiaohongshu. These measures made the series an instant success, with sales exceeding 500,000 copies within six months, not only satisfying young people's thirst for knowledge and promoting the dissemination of scientific culture but also generating significant economic benefits for the publisher.

2.2 AI Helps Improve Book Quality and Brand Power Enhancing social benefits in publishing enterprises requires support from book quality and brand power. AI can assist managers and editors in gaining deep understanding of market demands and reader preferences, uncovering competitive and attractive content and brand images, and skillfully integrating these into publishing strategies [5]. In topic planning, AI's data analysis functions and deep learning technology can quickly capture market dynamics to achieve precise positioning. During content creation, AI's massive corpora and advanced algorithms can provide authors with rich materials and creative inspiration, enabling book content to move beyond traditional text formats and integrate images, videos, audio, and other multimedia elements, greatly enriching publishing content forms and expressiveness while increasing work depth and appeal. In the proofreading stage, intelligent manuscript assistance systems can provide specific and constructive revision suggestions regarding article structure, logic, grammatical errors, and typos, further improving book quality [6-7].

In brand building, publishing enterprises can use reader profiling technology to deeply understand different reader groups' needs, then conduct precision marketing through social media and digital reading platforms to enhance brand recognition and influence among target audiences. Additionally, AI-driven intelligent customer service systems can not only provide real-time answers to questions about book content, purchasing, and after-sales service around the clock but also engage in emotional interactions with readers to collect feedback and suggestions, helping enterprises timely improve products and services and enhancing reader goodwill and brand loyalty. In brand image maintenance, AI-powered real-time online public opinion monitoring technology can filter and analyze massive amounts of information from news reports, social media comments, and forum posts to promptly identify brand-related positive or negative evaluations. Once negative public opinion emerges, the system can quickly locate the source, analyze the trend and impact scope of the public sentiment, and provide crisis response strategies and recommendations for publishing enterprises [8].

2.3 AI Enhances Market Monitoring and Competitive Capabilities

Driven by intelligent technology, publishing enterprises have experienced tremendous changes in publishing carriers, symbols, and technologies. To win market share, they must continuously integrate new technologies to enhance competitiveness and influence. AI offers numerous advantages in market monitoring and competition. Relying on real-time data capture and intelligent analysis capabilities, AI can track multi-dimensional information including changes in book sales platform rankings, social media topic popularity, and competitor new product releases with minute-level frequency updates, quickly identifying market trend inflection points and competitive landscape changes. When discovering surging sales of certain book categories or marketing campaigns launched by competitors on specific themes, AI can immediately capture key signals, combine them with historical data models for trend extrapolation,

and generate visual market analysis reports that intuitively present core data such as market growth rates, user demand gaps, and competitor strengths and weaknesses comparisons. Furthermore, AI can construct competitive early warning mechanisms by mining and analyzing non-explicit data such as competitor patent layouts, talent flows, and capital operations to predict potential competitive threats. When monitoring exclusive cooperation intentions between competitors and well-known authors or increased R&D investment in emerging technology fields, the system automatically triggers warnings and provides forward-looking response suggestions covering content reserves, talent cultivation, and technology cooperation based on industry trends and corporate strategy. Through real-time, precise, and intelligent market monitoring and strategic support, AI helps publishing enterprises maintain keen insight and rapid response capabilities in rapidly changing market environments, effectively avoid competitive risks, enhance market competitiveness and industry discourse power, and drive the publishing industry toward high-quality, sustainable development.

2.4 AI Promotes Multi-Channel Integration of Social Benefit Dissemination In the all-media era, readers' information access channels have become increasingly diversified, ranging from traditional physical bookstores, newspapers, and magazines to emerging social media, online reading platforms, and audio-video content platforms, each with its unique audience and communication advantages. To more effectively enhance social benefits, publishing enterprises need to integrate multiple channels and resources through scientific and rational allocation and coordination to achieve broad and deep communication coverage. In this process, AI plays a crucial role by helping publishing enterprises precisely integrate communication resources across different channels. Through deep mining and analysis of data from various media platforms, AI can provide detailed understanding of each platform's communication characteristics, user profiles, and effectiveness, enabling the formulation of scientific multi-channel communication strategies that ensure information precisely reaches target audiences and achieves synergistic effects across channels [9].

For instance, for video-sharing platforms centered on visual experiences such as YouTube, Vimeo, Bilibili, Tencent Video, and iQIYI, publishing enterprises can use AI technology to produce book trailers or author interview videos for promotional purposes. For deep-reading-focused online platforms and e-book stores such as Zhihu Bookstore, Douban Reading, Dangdang Cloud Reading, and Shenzhen Dianyue, they can publish excerpts, reviews, and recommendations to deeply interpret book values and highlights. For social media platforms focused on social interaction and content sharing such as Weibo, WeChat Official Accounts, Douyin, and Kuaishou, publishing enterprises can leverage AI technology to analyze user preferences, customize personalized book recommendations and interactive topics to stimulate reader discussions, and utilize intelligent customer service systems to timely respond to reader inquiries, thereby enhancing user experience and satisfaction and broadening book dissemination

scope and deepening social influence.

3. Strategies for Enhancing Social Benefits of Publishing Enterprises in the AI Context

3.1 Deepen Intelligent Cultural Inclusion to Meet Diverse Social Needs Given the current uneven distribution of cultural resources and unmet reading needs of certain groups, publishing enterprises should aim for intelligent cultural inclusion, building a cultural service system covering different populations throughout society to promote equity and accessibility in knowledge dissemination. To this end, publishing enterprises should increase investment in technological innovation, employing natural language processing, speech synthesis, image recognition, and other technologies to create diversified intelligent reading formats that break through geographical, age, and ability limitations, allowing high-quality cultural content to reach broader audiences [10]. For example, for elderly populations, speech synthesis technology can convert classic literature, health preservation, and historical biographies from print books into audiobooks accessible through screen-reading software. For young readers, publishing enterprises can collaborate with public welfare organizations and technology companies to use AI recommendation algorithms to precisely push natural science and humanities readings, or utilize virtual reality technology to transform abstract knowledge from textbooks into visual scenarios that stimulate student interest.

To ensure the sustainability of cultural inclusion, publishing enterprises can also rely on AI to conduct deep analysis of user behavior data, optimize resource allocation, and dynamically adjust content production and distribution strategies. By real-time monitoring of reading preferences across different groups, regional cultural demand gaps, and knowledge acquisition frequencies, publishing resources can be directed toward educationally underserved areas and special groups with urgent needs, ensuring precise delivery of cultural services. Simultaneously, enterprises should actively explore innovative “public welfare + business” models that integrate intelligent cultural inclusion projects with corporate brand building, using commercial cooperation to support cultural inclusion project operations while enhancing brand social reputation through public welfare book donations. By deepening intelligent cultural inclusion, publishing enterprises can not only meet diverse social needs and effectively enhance the breadth and depth of cultural dissemination but also substantially improve their own social benefits, achieving a win-win between social responsibility and commercial value.

3.2 Build an Intelligent Knowledge Service Ecosystem to Enhance Content Service Value In fulfilling social responsibility and improving corporate performance, publishing enterprises should actively collaborate with universities, research institutions, technology companies, and social organizations to jointly construct an intelligent knowledge service ecosystem covering all fields

and the entire value chain—an effective strategy for promoting efficient integration of knowledge resources and maximizing social value release [11-12]. To improve knowledge service efficiency and quality, publishing enterprises and their partners can collaboratively utilize AI technology to integrate multi-source heterogeneous data including books, journals, academic papers, industry reports, and intangible cultural heritage, breaking data barriers to construct giant knowledge graphs covering humanities, social sciences, natural sciences, and engineering technology. This transforms dispersed knowledge elements across different carriers into organic wholes, providing underlying knowledge support for social development across all fields.

On this foundation, using semantic models as collaborative filtering algorithms, the system can automatically construct user profiles based on their search, browsing, and download behaviors and conduct precise knowledge push, achieving a transformation from “people searching for knowledge” to “knowledge finding people.” For example, in 2024, China National Nuclear Corporation established China’s first “i-Knowledge” platform on nuclear power, featuring seven core functional modules including a nuclear industry semantic database and intelligent Q&A, covering over 60 professional fields. Through digital empowerment, the platform effectively promoted technological innovation in nuclear power plants, significantly improved R&D efficiency, and accelerated the construction of smart nuclear power. For public services, the “One-Click Borrowing” platform jointly created by Hangzhou Library and publishing enterprises has achieved remarkable results. The platform aggregates over one million print books, more than 600,000 e-books, and over 300,000 audiobooks and video resources, enabling easy online borrowing and returning of books and anytime access to over one million electronic book resources. In 2022, digital reading visits exceeded 770,000, with annual new users and digital resource visits both doubling, truly making knowledge accessible and injecting strong momentum into nationwide reading initiatives.

3.3 Build an Intelligent Communication Matrix to Expand Cultural Brand Influence In the AI era, e-commerce platforms such as Taobao, JD.com, Dangdang, and Douyin have rapidly emerged as primary channels for book purchases. By the end of 2023, platform e-commerce and short-video channel sales had become the first and second largest book sales channels, far surpassing physical store performance. Meanwhile, cultural communication boundaries are no longer limited to traditional publishers and bookstores, with emerging media platforms gradually becoming primary methods and channels for book marketing [13]. Faced with these changes, publishing enterprises need to actively adapt by building an intelligent communication matrix. Through precise target audience positioning, optimized content recommendation algorithms, and strengthened cross-platform integrated marketing, they can achieve online-offline integrated development, thereby further expanding the influence of mainstream culture.

First, publishing enterprises must innovate marketing strategies. While utilizing traditional promotions such as book signings, launch events, and advertising, they should establish their own official websites, Weibo accounts, and WeChat Official Accounts based on AI technology to strengthen interactive connections between authors, editors, and readers. Simultaneously, combining AI technology, computer technology, and multimedia technology, they should guide book reviews, hot topic discussions, book recommendations, and interview activities, encouraging readers to share, interact, and comment to increase book exposure and attention, achieving fission-style multi-level cultural dissemination. Second, using big data, cloud computing, and other technologies to construct reader profiles, enterprises can deeply understand readers' habits, interests, and purchasing behaviors, thereby providing personalized content recommendations and services and pushing book content that meets their needs to improve sales. By continuously optimizing content recommendation algorithms, publishing enterprises can attract more user attention and further enhance cultural brand influence, enabling broader mainstream culture dissemination. Third, publishing enterprises should emphasize cross-platform integrated marketing, effectively integrating multiple platforms including e-commerce, short-video channels, and social media to achieve online-offline integrated development. This cross-platform integration not only helps expand book exposure and sales channels but also enhances cultural brand recognition and reputation. Through carefully planned marketing campaigns, publishing enterprises can attract more users to participate in interactions, strengthening their identification with and sense of belonging to the cultural brand, thereby further expanding mainstream cultural influence [14].

The rapid development of AI technology has brought unprecedented transformation and opportunities to publishing enterprises. Against this backdrop, enhancing the social benefits of publishing enterprises requires them to reconstruct cultural communication logic through AI technology, innovate content production and service models, continuously expand the social radiation power of high-quality culture and enable more precise value guidance, and seek coordinated development between social and economic benefits while balancing efficiency improvement and humanistic commitment.

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

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