"Knowledge Plus" May Lead New Directions for Digital Publishing Transformation — An Exclusive Interview with Zhang Li, Vice President of China Press and Publication Research Institute (Postprint)

Authors: Diao Yigang

Date: 2023-10-08T00:00:00+00:00

Abstract

As the annual China Digital Publishing Expo approaches, China Media Technology conducted an exclusive interview with Zhang Li, Deputy Director of the Chinese Academy of Press and Publication, to discuss the past, present, and future of digital publishing in China. Drawing on the Academy's recent work and the publishing industry's achievements in the digital realm, Zhang Li offers insights into the transformative trajectory of the field.

Full Text

The Evolution of Digital Publishing and Knowledge Services: An Interview with Zhang Li

As the annual China Digital Publishing Expo approaches, *China Media Technology* conducted an exclusive interview with Zhang Li, Deputy Director of the Chinese Academy of Press and Publication, to discuss the past, present, and future of digital publishing in China. Drawing on the Academy's recent work and the publishing industry's achievements in the digital realm, Zhang Li offers insights into the transformative trajectory of the field.

Defining Digital Publishing in an Era of Convergence

Zhang Li observes that digital publishing has evolved into a comprehensive concept encompassing every aspect of the publishing value chain—digitization of original works, editorial processing, printing and reproduction, distribution

and sales, and reading consumption. This broad definition reflects a "pan-publishing" orientation, as the boundaries of publishing have dissolved and the era of true convergence has arrived. Consequently, the very concept of publishing is undergoing fundamental expansion.

Four Stages of Digital Publishing Development

Zhang Li identifies four distinct phases in China's digital publishing evolution. The first stage, dating from the mid-to-late 1990s, was the era of electronic publishing dominated by floppy disks, CDs, VCDs, and DVDs, featuring early databases and directories. The second stage emerged in the late 1990s to early 2000s with the rise of internet publishing, characterized by publishing houses establishing websites to host content or catalogs for reader access and purchase. The third stage, spanning from 2005 to approximately 2016, marked the period of rapid digital publishing expansion. The fourth and current stage has witnessed the swift development of knowledge service models under the "Internet Plus" and cross-boundary integration framework.

The year 2005 represents a watershed moment for the industry, coinciding with the inaugural China Digital Publishing Expo. Since then, the Academy has published eight volumes of the *China Digital Publishing Industry Annual Report*, establishing a digital publishing laboratory that has produced numerous test reports and influential think-tank publications. These include *Integrated Marketing in the Digital Age*, *Legal Systems for Internet and Mobile Publishing*, and *Research on Chinese and Foreign Audio-Visual Publishing Industries and Related Policies*. In 2016 alone, the Academy published ten scholarly works, such as *Market Structure and Investment Prospects of China's Digital Content Industry*, *Digital Publishing Business Models*, and *Research on the Development Status and Evaluation System of Online Literature*. Additional publications on big data and digital copyright are forthcoming. The Academy has also successfully established two national key laboratories—the National Key Laboratory of Publishing Integration and Distribution and the National Key Laboratory of Press and Publication Standards and Technology—advancing technical research and standard compliance testing capabilities.

The Transformation of Traditional Publishing

Industry transformation has been ongoing since the electronic publishing era of the 1990s. Initially, "electronic publishing" referred both to CD-ROM publications and to laser phototypesetting systems (known as desktop publishing), encompassing not only changes in publication formats but also transformations in publishing workflows. More broadly, this included innovations in content processing and distribution methods, such as deployment of newspaper editorial systems, subscription systems, publisher inventory management systems, ERP, and CRM solutions. Today, this evolution continues with the emergence of new reading terminals—Kindle, iPad, smartphones—and terminal software like mobile applications.

Zhang Li emphasizes that traditional publishing houses must avoid simply transplanting outdated print-publishing models into the digital era or superficially grafting internet models onto existing structures. The key is understanding how to provide genuine services to readers and users in the current environment—services that extend beyond mere reading to encompass application-level functionalities, with clear strategies for delivery mechanisms and business models. True, deep integration is essential for identifying viable new models.

Digital Copyright Protection in the User-Generated Content Era

The proliferation of user-generated content has disrupted the traditional elite-driven content production model and the institutional monopoly on editing, printing, and distribution. The ease of copying and pasting online content has facilitated infringement and piracy. To address these challenges, China's "Eleventh Five-Year Plan" for cultural development, formulated a decade ago, established the goal of developing a "Digital Copyright Protection Technology R&D Project." Officially launched in July 2011, this comprehensive initiative comprised 18 subcontracts and 26 research topics covering standard formulation, technical research, system development, platform construction, systems integration, and application demonstrations. By its completion in December 2016, the project had applied for 41 patents (with 6 granted, including one China Patent Excellence Award), received two first prizes for technical invention from the China Electronics Society and one first prize for university research achievements from the Ministry of Education in 2015, registered 62 software copyrights, and published 42 academic papers. Showcased at the 12th Shenzhen Cultural Fair in May 2016, the project attracted over a thousand industry visitors and had signed more than 130 technical service agreements and strategic partnerships with traditional publishers, new media companies, animation and design enterprises, technology firms, industrial parks, law firms, and intellectual property service organizations by year-end. This successful project has provided robust technical measures for industry-wide copyright protection.

The Shift Toward Knowledge Services

Zhang Li identifies two major transformation directions for the content industry (including publishing): entertainment and knowledge services. Regarding knowledge services, the Chinese government incorporated the "National Knowledge Resource Database Project" into its "Eleventh Five-Year Plan" for cultural development over a decade ago, with the former General Administration of Press and Publication approving its feasibility study in 2007. In March 2015, the State Administration of Press, Publication, Radio, Film and Television initiated pilot programs for knowledge services in specialized publishing houses, tasking the Academy with implementation responsibilities. The Academy subsequently established the Knowledge Resource Service Center, completing selection of pilot units and technical support partners, drafting knowledge service standards, and developing both the center's portal website and knowledge service platform. To

date, pilot units have completed 50 knowledge service products, with 41 under development and 12 in planning.

For traditional specialized publishers, transitioning to knowledge services represents the most significant future direction. This shift moves from selling tangible "products" to providing service-oriented solutions. However, the specific business models—what services to offer, what product forms to develop, and what pricing mechanisms to employ—require ongoing exploration. As Zhang Li notes, no single standard model exists for digital publishing, which is not merely the opposite of print publishing but rather encompasses it as one component of a broader ecosystem.

Building In-House Technological Capabilities

Reflecting on the Academy's commitment to independent research and development, Zhang Li advocates for publishers to cultivate their own technical teams rather than relying solely on outsourced development. While content remains the core advantage, "technology as tool" requires deep integration that cannot be achieved by superficially "sticking an IT label" on publishing operations while remaining fundamentally disconnected from technological innovation. Technology companies lack publishers' intimate understanding of content and user needs; outsourcing content development risks severing direct market connections. The Academy's Engineering R&D Center, established in 2009 to organize major technological initiatives for the National Press and Publication Administration, has successfully led the National Digital Copyright Protection Technology R&D Project and is currently managing the Knowledge Service Engineering Project. Beyond technical management and research, the center undertakes development projects to enable deeper participation in the publishing industry's digital transformation.

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