# Research on Post-Print Trends in University Textbook Publishing in the All-Media Era

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## Abstract

With the rapid development of China' s Internet technology and supporting infrastructure, the media landscape in China has transitioned from the traditional media era dominated by the three major channels of "print media, broadcasting, and television" to the "all-media era" characterized by multiple forms of media including "mobile terminals, print media, broadcast media, television media, online media, and satellite communications" that provide full-time, full-coverage, and full-audience reach. This paper takes "real-world demands driving business renewal" as its entry point to discuss the current state, innovative approaches, and future development trends of university textbook publishing in the all-media era, and conducts quantitative modeling and dynamic analysis of some research conclusions.

## Full Text

### 1. Current State of University Textbook Publishing in the All-Media Era

The concept of "all-media" originated from Martha Stewart Living Omnimedia (MSLO), a US-based media and home services company founded in 1999. MSLO unified the management of its newspapers, magazines, books, radio programs, television programs, and websites to provide customers with a new service called "all-media information." When evaluated against current media development standards, MSLO's service core was more akin to "multimedia services"[1]. This evolution reflects a fundamental shift from the "two-dimensional paper" mindset of the print era to a new paradigm that treats the physical book as a pivot point while using links to coordinate resources. Resource location information in the form of QR codes, barcodes, and URIs (Uniform Resource Identifiers) has been embedded into textbook entities, enabling readers to use information terminals to access corresponding resources based on these "indices." This approach has

matured through years of practice and become one of the important models in contemporary textbook publishing.

This transformation encompasses three critical shifts in thinking. First, **link thinking** repositions the textbook from a static container to a dynamic gateway. Second, **system thinking** expands the definition of university textbooks beyond the physical entity. In the print media era, textbooks primarily meant physical books, and publishing work concluded once these books were distributed along the path from "publisher → schools/bookstores → consumers." In the all-media era, the concept has broken through the limitations of "physical books" to encompass a comprehensive "resource & service" integrated system that uses the physical book as an entry point, resource link information as clues, electronic resources as support, and service platforms as windows. Publishing institutions no longer treat the distribution of physical books as the "endpoint" of their work; instead, building electronic resource platforms and comprehensive service platforms to complement physical books has become an essential component of textbook publishing. Third, **catalog thinking** recognizes that various information consultation and service platforms in the all-media era serve as powerful backbones for expanding the "carrying capacity" of textbooks, making the physical book more like an entrance to the "information world." This requires publishers to adopt a catalog mindset, transforming the physical book into a concise, core-focused "knowledge base directory" that extracts low-density, highly repetitive, and frequently changing content, relocating it to supporting resource spaces and service platforms [4].

## 2. The "All-Media Model" of "Physical Book + Resource Space + Service Platform"

In the all-media era, the connotation and extension of university textbook publishing continue to expand, with the role of physical books evolving from "resource carrier core" to "information space directory + key content carrier core." The embedding of QR codes, barcodes, URIs, and contact information throughout physical books demonstrates this transformation [5]. It is important to note that this "Physical Book + Resource Space + Service Platform" model represents a fundamental trend rather than a temporary fad. As human society becomes deeply bound to the "information world," and as the contradiction between knowledge explosion and the limited capacity of print media intensifies, this all-media model for university textbook publishing is increasingly becoming mainstream.

**Model [1] Business Process Model for University Textbook Publishing "All-Media Mode"**

The business process can be summarized in six steps:

**Step 1: Overall Content Planning** -Determine the publishing content and product form.

**Step 2: Physical Book Planning** -Based on factors such as content importance, space occupation, presentation form, change frequency, and revision cost, rationally plan the content for the physical book.

**Step 3: Supporting Resource Planning** -Determine the specific content, presentation format, and platform for supporting resources.

**Step 4: Support and Service Platform Construction** -Build a unified "resource & service integration" platform at the publisher level to store electronic courseware, audio-visual multimedia courseware, simulation systems, utility tools, and online examination systems.

**Step 5: Resource Link Embedding** -Place resource link information such as QR codes, barcodes, and text hyperlinks in each chapter of the physical textbook.

**Step 6: Resource Updating** -Collect reader revision suggestions, proofreading comments, and discussion results through the service platform to perform necessary updates to various resources.

[Figure 1: see original paper] Resource Space Centered on University Textbooks

### 2.3 The "Component-Based" Textbook Publishing Model as a New Option

The component-based textbook publishing model represents an upgraded version of "clustered" marketing from the print media era. Its core process can be summarized in three steps [6]:

**(1) Textbook Cluster Design.** In this stage, publishing institutions first determine the theme of the textbook cluster through various methods including sampling surveys, personal interviews, meetings, and theoretical analysis. After determining the theme, they begin a "top-down" design of first-level sub-concepts, second-level sub-concepts, and so on, forming an "N-ary tree"structure of "concept directory collection."

**(2) Branch Product Publishing.** Based on the concept directory collection from the previous step, a sub-concept is selected for expansion to complete the design and publication of the corresponding physical textbook and supporting resources. It is particularly important to note that multiple physical books belonging to the same concept directory collection should adopt consistent cover design and layout styles, with the cluster name prominently displayed.

**(3) Feedback and Re-creation.** Publishing institutions score and rate each volume based on feedback from the service platform and marketing data, determining whether a particular volume requires "upgrade and optimization."

**Model [2] Data Structure for a Single Node in the Concept Directory Collection**

```
<Concept_{node}>
```

```
    <name>Node Name</name>
    <parent>Parent Node Name</parent>
    <child_{nodes}>Child Node Collection</child_{nodes}>
    <paper_{books}>Corresponding Physical Book Name and ID Collection</paper_{books}>
    <oni_{books}>Corresponding All-Media Resource Collection</oni_{books}>
</Concept_{node}>
```

Based on Model [2], a top-down, progressively expanding "N-ary tree" can be constructed. This N-ary tree represents an XML version of the concept directory collection that can be directly stored in structured databases for CRUD operations, providing a solid foundation for the electronicization of subsequent textbook cluster design work. Using Model [2] to build the concept directory collection enables reasonable separation between all-media resources and the concept directory, achieving modular reuse of all-media resources.

## 3. Summary and Outlook

This paper examines the current state, innovative methods, and future development trends of university textbook publishing in the all-media era from the perspective of "real-world demand driving business renewal," with quantitative modeling and dynamic analysis applied to some research conclusions. Overall, the adoption rate of all-media approaches in university textbook publishing remains relatively low, and the related all-media resource platforms and supporting service platforms have not yet matured. As the internet world becomes deeply integrated with all aspects of human social life, the trend toward the "all-media model" characterized by "Physical Book + Resource Space + Service Platform" will become increasingly pronounced, triggering profound transformations in textbook publishing business processes, product forms, and service models.

[1] Cai Wei, Zhang Jing. *A Preliminary Study on All-Media Publishing of University Textbooks* [J]. *News Research Tribune*, 2020, 011(007): 189-190. [2] Lin Hui, Wang Hongru, Mu Jingbo. *Research on Innovative Development Practices of Paper Textbook Publishing in the All-Media Era* [J]. *Media Forum*, 2020(20). [3] Shan Liwen. *Innovation in University Textbook Publishing Based on Mobile Terminals: Digitalization and Micro-Lessonization—Taking College English Textbooks as an Example* [J]. *China Publishing*, 2017(18). [4] Wu Yanyan. *Yan' an Literary Book Publishing and the Standardization of Yan' an Publishing System (1937-1947)* [J]. *Publishing Science*, 2016, 24(002): 123-126. [5] Wang Liyong. *Discussion on the Current Status and Necessity of Digital Textbook Development in Higher Education Institutions in the New Era* [J]. *Communication and Copyright*, 2020, 082(03): 124-126. [6] Cai Wei, Qu Shengwei. *On the Integrated Publishing of University Textbooks and MOOCs* [J]. *Communication and Copyright*, 2018, 000(001): 31-32.

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