

## Facilitating the Development of Science and Technology Journals in Universities of Ethnic Minority Regions in the Era of Media Convergence (Postprint)

**Authors:** Liu Fengxiang

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

### Abstract

Science and technology journals of universities in ethnic minority regions urgently require media convergence development through strengthening top-level design, developing personalized services, broadening digital dissemination channels, fostering an innovative development mindset, and promoting the cultivation of editorial talent for media convergence, thereby facilitating their high-quality development.

### Full Text

## Facilitating the Development of University Science and Technology Journals in Ethnic Minority Areas in the Era of Media Convergence

**Author:** Liu Fengxiang

**Affiliation:** Editorial Department of Journal, Inner Mongolia Normal University, Hohhot, Inner Mongolia, 010022

**Abstract:** University science and technology journals in ethnic minority areas urgently need to undertake media convergence construction. By strengthening top-level design for media convergence, developing personalized services, expanding digital communication channels, fostering innovative development mindsets, and promoting the cultivation of media convergence editorial talent, we can facilitate the high-quality development of these journals in ethnic minority regions.

**Keywords:** media convergence; ethnic minority areas; university science and technology journals; OSID Open Science Plan

---

## 2. Accelerating Media Convergence Adaptation for University Science and Technology Journals in Ethnic Minority Areas

At the fifth meeting of the Central Committee for Comprehensively Deepening Reform, the “Opinions on Deepening Reform to Cultivate World-Class Science and Technology Journals” was reviewed and approved [1]. On January 25, 2019, when presiding over the collective study session of the Political Bureau of the CPC Central Committee, General Secretary Xi Jinping elaborated on the importance of promoting media convergence development and strengthening mainstream public opinion, and put forward the major task of advancing media integration in depth [2]. Against the backdrop of digital technology advancement, deepening media convergence, and evolving reading habits, university science and technology journals in ethnic minority areas must recognize the developmental trends of the broader environment and actively confront the opportunities that the media convergence era presents for traditional print journals. It is necessary to accelerate the pace of integrated development to broaden communication channels and facilitate rapid, high-quality development.

### 2.1 Strengthening Top-Level Design for Media Convergence Construction in Science and Technology Journals

First, national and local governments must provide institutional guarantees for university science and technology journals in ethnic minority areas, offering prioritized support in terms of policy and funding to propel their transformation toward media convergence. Second, it is essential to promote online-first publishing for university science and technology journals, enabling single-article first release to accelerate timeliness; actively promote WeChat public accounts, Weibo, and official websites, as well as optimize the construction of editorial management system platforms, adopt XML typesetting to adapt to journal development, and launch HTML full-text publishing models to facilitate reading on mobile devices. It is also crucial to join the OSID (Open Science Identity) open science plan as soon as possible. OSID can comprehensively present authors’ voice, video, and other materials to readers. Particularly for scientific researchers, if they are willing to showcase their research achievements—including experimental processes, experimental ideas, and experimental equipment—readers can learn about these through OSID and communicate directly with authors. As Liu Yin et al. noted, “Through the OSID platform, authors can use computers or mobile phones to upload enhanced publication materials such as voice, video, and text introductions to three-dimensionally display research results, backgrounds, and processes, compensating for the limitations of paper carriers. They can also exchange and interact with other researchers in related fields within the industry, thereby increasing paper visibility and expanding the influence of both the paper and its authors” [6].

## 1. Characteristics of Media Convergence Communication

University science and technology journals have traditionally relied on paper as their carrier to disseminate scientific research information. However, with scientific and technological progress and the increasing complexity of research objects, relying solely on paper media to transmit research results has clear limitations that make it difficult to satisfy the dissemination of knowledge in academic fields. The development of media convergence technology can transform single-mode text, charts, and images into multimedia formats such as audio and video, fundamentally changing readers' habits. In the internet era, people's access to networks has gradually shifted from television and computers to mobile clients, with smartphones becoming the most convenient tool for receiving and sending information. Logging into social media such as Weibo, WeChat, and QQ via mobile phones reduces communication costs and enhances information timeliness. As Chen Hao et al. stated in their research on media convergence era public opinion guidance strategies, "Self-media interpersonal communication is astonishingly fast, with zero time between information release and dissemination. Netizens can express opinions and feelings anytime and anywhere through self-media, covering everything from national affairs to daily necessities, from national education to environmental governance, from ethics to legal systems, and from domestic to international issues" [5]. This demonstrates characteristics of strong dissemination power, wide reach, high speed, and operational convenience.

### 2.2 Building Media Convergence for University Science and Technology Journals

**2.2.1 Developing Personalized Services** Traditional development models for university science and technology journals in ethnic minority areas are relatively singular, unable to quickly connect research achievements with readers, and rely merely on print publications or third-party platforms (such as CNKI, Wanfang Data, and Superstar) to disseminate scientific results without reflecting personalized development needs. With scientific and technological progress and the application of new media technologies, direct communication between readers and authors has become possible. University science and technology journals in ethnic minority areas can leverage mobile internet and big data technologies to push personalized services, delivering research results to interested readers more quickly, enhancing the timeliness of scientific achievements, facilitating more researchers to track the latest research trends, and accelerating the benefits of scientific and technological development for the general public.

**2.2.2 Expanding Digital Communication Channels** Science and technology journals in ethnic minority areas should, while maintaining content as their foundation, broaden communication pathways to achieve integration between works and channels, and organically combine print journals with new media platforms such as websites and electronic products. This enables the

optimization and upgrading of content, technology, and communication channels, expands journal development space, and effectively enhances journal branding. For example, WeChat public accounts associated with journals can directly push journal articles, allowing readers to view published papers on their mobile phones. The media convergence era features variable communication forms, diverse derivative products, multi-faceted audience demands, and multiple promotional channels. The integrated development of science and technology journals should adopt three-dimensional and diversified operational models to enhance their brand influence [7].

**2.2.3 Creating Innovative Development Mindsets** The year 2021 marked the beginning of the 14th Five-Year Plan, presenting new development opportunities for university science and technology journals in ethnic minority areas. To run first-class journals, in addition to continuously improving media convergence construction, other factors must cooperate actively. For instance, media convergence development for these journals requires not only technical support but also enhanced branding and manuscript quality; otherwise, hollow technology cannot facilitate development. The experiences of pioneering journals are worth learning from. Therefore, journals in ethnic minority areas can take advantage of opportunities to attend various national journal conferences to actively invite and listen to practical experiences from peers. They can also participate in relevant lectures on media convergence knowledge, seize these opportunities to consult experts for analysis and guidance on their work. Editors from ethnic minority regions can quickly learn and solve related problems, combine them with actual local development conditions, avoid detours in media convergence construction, achieve “curve overtaking,” and quickly join the first echelon of media convergence journal development.

### 2.3 Media Convergence Talent Development

Editors of university science and technology journals in ethnic minority areas cannot adopt traditional mindsets when viewing journal development. In addition to possessing basic editorial expertise, they must also have network information processing capabilities, media convergence development abilities, and resource integration capacities. As Zheng Shanshan proposed: “Enhancing foot power means strengthening editors’ practical abilities; enhancing eye power means strengthening their observation and judgment; enhancing brain power means strengthening their theoretical thinking; enhancing writing power means strengthening their expression capabilities” [8]. Therefore, these journals must emphasize editors’ media convergence learning and cultivate their flexible application abilities. For example, full-time editors should regularly manage and maintain journal websites, push academic papers and solicitation information in real-time via WeChat public accounts, and skillfully use editorial management systems. In particular, some editors must learn video production and image processing, possess aesthetic abilities and written expression skills to meet new media construction demands. When conditions permit, editors can attend vari-

ous academic lectures, digital publishing and new media skills training, or invite new media professionals for guidance, learning through practice. To enhance editors' enthusiasm for using media convergence, journals can consider incentive mechanisms and attract outstanding media convergence professionals through high-level talent recruitment channels to strengthen editorial teams and facilitate rapid mastery of media convergence knowledge.

### **3. Active Participation in National University Science and Technology Journal Development**

The media convergence development pace of university science and technology journals in ethnic minority areas is relatively slow compared to other developed regions, and they cannot take overly large steps due to three main constraints: insufficient experience, lack of professional technical talent, and limited funding. To ensure these journals “go far and remain stable,” it is necessary to learn from pioneering journals that have adopted media convergence to fill their own gaps. Therefore, media convergence construction for these journals relies on support from peer institutions. They must maintain smooth communication channels with other journals undergoing media convergence construction, actively join media convergence development forums, learn advanced management concepts and development models, and explore suitable media convergence development paths.

#### **3.1 Learning from Advanced Experiences**

Although media convergence technology has been widely promoted among most university science and technology journals, different regions face different development problems, and the summarized experiences are worth learning from. Therefore, journals in ethnic minority areas can leverage opportunities to attend various national journal conferences to actively invite and listen to practical experiences from peers. They can also participate in relevant lectures on media convergence knowledge, seize these opportunities to consult experts for analysis and guidance. Editors from ethnic minority regions can quickly learn and solve related problems, combine them with actual local development conditions, avoid detours in media convergence construction, achieve “curve overtaking,” and quickly join the first echelon of media convergence journal development.

#### **3.2 Establishing a Shared Media Convergence Platform Mechanism**

In the initial stage of media convergence construction, university science and technology journals in ethnic minority areas can consider participating in other institutions' media convergence platforms. To promote joint development of university science and technology journals, consideration can be given to establishing a shared media convergence construction platform through third-party organizations such as the China University Science and Technology Journals Research Association, China Editors Association, CNKI, and Wanfang Database.

This would facilitate authors and readers accessing unified platform information via mobile devices, greatly expanding knowledge-sharing channels. As Liu Zhao noted, “Based on the rich content resources of university journals and the sharing characteristics of new media, it is entirely possible to integrate websites of all university journals within a province or even nationwide, incorporating the latest journal content resources, newly established special columns, common advantageous disciplinary columns, latest industry developments, business training, project application plans, etc., into a unified platform” [9]. Therefore, building a shared media convergence platform is a viable approach worth exploring.

### 3.3 Building Continuing Education and Media Convergence Training

University science and technology journals in ethnic minority areas can jointly apply for continuing education training on media convergence knowledge with other journals. Conducting surveys on media convergence knowledge before training helps prepare targeted and professional instruction for editorial staff, producing unexpected positive effects. As Wang Yu reflected in his article on continuing education for university journal editors in the media convergence era, “Curriculum design should be targeted, training content should be practical, and training approaches and methods should be flexible” [10]. Media convergence training must meet the actual needs of most journals rather than being isolated or singular. Only training that aligns with journals’ own needs can solve various media convergence-related problems encountered by editors in ethnic minority areas. When conditions permit, trainers can also conduct on-site training at editorial offices to strengthen communication with staff, collaborate on developing new products, and jointly apply for relevant research projects.

During this opportune period of rapid media convergence development, university science and technology journals in ethnic minority areas can set sail by riding this “east wind” and closely following the application of new media technologies. It is essential to strengthen top-level design for media convergence technology, emphasize personalized service standards, promote the popularization of media convergence technology, and establish high-standard, strict-requirement service concepts. Simultaneously, to effectively leverage media convergence technology, these journals must enhance editor training and motivate editorial staff through various incentives to facilitate the construction of high-quality science and technology journals in ethnic minority areas.

## References

- [1] Xi Jinping presided over the fifth meeting of the Central Committee for Comprehensively Deepening Reform, emphasizing the profound summarization of the great achievements and valuable experiences of reform and opening up, and continuously advancing the cause in the new era [N]. People’ s Daily, 2018-11-15.

- [2] Li Hui, Zuo Yuan. Analysis on the development strategy of media convergence construction for military academic journals [J]. Journal of Hubei University of Science and Technology, 2020(6): 287-289.
- [3] Wang Jiangpeng. Practice approaches, development bottlenecks, and breakthrough strategies for visual publishing of science and technology journals in the context of media convergence [J]. Chinese Editors, 2020(12): 112-115.
- [4] Li Yi. Reflections on the innovative model for sustainable development of academic journals in the media convergence era [J]. Editing Studies, 2018(2): 106-110.
- [5] Chen Hao, Li Jinqiu. Research on public opinion guidance strategies in the media convergence era [J]. Chinese Editors, 2019(2): 71-75.
- [6] Liu Yin, Yao Shun. Analysis of challenges and development approaches for university journals in media convergence construction [J]. Communication and Copyright, 2020(5): 145-146+151.
- [7] Hou Yanjie. Operation strategies for science and technology journals in the media convergence era—taking “Future Scientists” as an example [J]. Publishing Wide Angle, 2019(23): 52-54.
- [8] Zheng Shanshan. Enhancing the “four strengths” : The transformation path for academic journal editors in the media convergence era [J]. Chinese Editors, 2020(9): 29-32.
- [9] Liu Zhao. Reflections on the transformation and development of university journals from the perspective of media convergence [J]. Journal of Hubei University of Science and Technology, 2020(6): 272-275.
- [10] Wang Yu. Reflections on continuing education for university journal editors in the media convergence era [J]. Journal of Hubei Second Normal University, 2017(7): 129-132.

**Author Biography:** Liu Fengxiang (1983-), male, from Hohhot, Inner Mongolia, editor. Research direction: editing and publishing.

**(Responsible Editor:** Zhang Xiaojing)

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

*Source: ChinaXiv –Machine translation. Verify with original.*