On the Application of Big Data Technology in News Gathering, Writing, and Editing: Postprint

Authors: Wang Fang

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Abstract

With the continuous advancement of technology, the development pace of information technology is accelerating, and the volume of information data across all sectors of society is increasing rapidly, exerting significant influence on industry development. In the face of such massive information volumes, big data technology has emerged accordingly. How to identify news with greater reporting value from this information has become a primary focus at present. Predictive analysis can be conducted through big data technology, which holds important guiding significance for grasping market conditions. When applied to the journalism industry, big data technology can play a greater role in the collection, querying, analysis, and processing of news information. Moreover, big data technology offers higher processing efficiency and stronger analytical capabilities for this information, providing substantial assistance to the development of the journalism industry. This paper analyzes the impact of big data technology on news gathering, writing, and editing, with the expectation that its application in the journalism industry will yield certain effects.

Full Text

Preamble

In an era of media convergence, television stations face the dual challenge of retaining young audiences while attracting broader viewership. The reach of television programs directly influences their development trajectory and long-term viability. Television editors must therefore cultivate innovative thinking to continuously expand audience bases and amplify program impact.

Keeping pace with evolving times presents both challenges and opportunities for television editors. The development of the television industry is intrinsically linked to broader societal progress, which compels programs to break free

from traditional constraints, enhance core competitiveness, and foster innovative thinking to create content that resonates with contemporary audiences. In this context, conventional production methods no longer suffice. The industry' s fundamental objective has become self-reinvention and enhanced competitiveness through editorial innovation, enabling television to remain relevant and responsive to changing times.

3. Effective Strategies for Editorial Thinking Innovation in the Media Convergence Era

Xuchang Television has undertaken integrated media reforms to explore innovative editorial pathways for specialized television channels at the municipal level. This endeavor requires focused attention in several key areas.

3.1 Innovating Editorial Concepts in Response to Media Convergence

Television editors must align their creative activities with contemporary developments. The media convergence era has witnessed the rise of diverse online platforms such as Weibo and WeChat, demonstrating a clear trend toward media technology diversification. These platforms provide audiences with expanded choices and enriched content consumption experiences, significantly impacting traditional television. In response, television stations must transform their operational philosophies, implement comprehensive measures, and integrate themselves within the media convergence landscape to achieve sustainable development.

During program production, editors should employ diversified methods that strengthen television' s position in the broader communication ecosystem while clarifying their strategic positioning and developmental direction. Editorial personnel must approach program creation from multiple perspectives, continuously expanding content scope and highlighting innovative elements that resonate with new media audiences. By revolutionizing their conceptual frameworks, editors can fundamentally transform television programming and create content that genuinely appeals to contemporary viewers.

3.2 Transforming Editorial Roles and Innovating Production Formats

The diversification of new media forms has elevated audience expectations for program quality, requiring television editors to innovate from the ground up by fundamentally transforming their professional roles. In the media convergence era, editors must develop comprehensive competencies spanning editing, planning, and reporting, thereby assuming greater responsibilities and facilitating role transitions.

International program formats and experiences offer valuable reference points that can be adapted to China' s social context to drive industry advancement. For instance, Jiangsu Satellite TV's *If You Are the One* achieved record-breaking

ratings, yet subsequent imitation by other channels—producing similar talent, parenting, and knowledge-based programs—revealed a troubling lack of originality. This copycat phenomenon underscores the critical need for traditional media to develop more creative and popular content rooted in local culture, transforming program formats into distinctive highlights of the media convergence era.

3.3 Emphasizing Content Innovation and Refinement

The penetration of new media into daily life has rendered traditional television programming insufficient for modern audiences. Innovation must therefore build upon traditional foundations while adapting content and broadcast methods to diverse audience segments. Content development should focus on hot-button issues that capture public attention, applying rigorous screening and creative adaptation while upholding principles of objectivity and authenticity to deliver reliable information that attracts broader social groups.

Interactive segments can be incorporated into program production to directly capture audience perspectives, providing valuable feedback for continuous improvement. This approach enhances program quality at its source, boosts ratings, and achieves the fundamental objectives of editorial innovation.

3.4 Leveraging New Media Advantages for Program Promotion

New media has become integral to modern life and work. Television editors must recognize the trend of media integration and capitalize on its advantages. Prior to program launch, editors should strengthen collaboration with new media platforms to amplify promotional reach. By mastering these tools, television professionals can transform their operational circumstances and create more favorable development opportunities.

In conclusion, television editors in the media convergence era must embrace innovative thinking to enhance industry competitiveness and drive further development. Innovation plays a crucial role in improving program quality and ensuring television content remains adaptive to evolving times. This process requires understanding new media advantages, clarifying strategic positioning, implementing effective innovative measures, and leveraging creative consciousness to foster better development opportunities for China' s television industry as a whole.

[1] Liu Tao. The Importance of Editorial Thinking Innovation in Television Stations in the Media Convergence Era[J]. Media Forum, 2018, 1(7): 84, 86.
[2] Zhang Lisha. An Exploration of Television Program Editing Innovation in the Media Convergence Era[J]. Communication Power Research, 2018, 2(16): 149.
[3] Liao Yu. A Study on the Role of Television Program Editors in the Media Convergence Era[J]. Western Radio and Television, 2017(20): 152-153.
(Author affiliation: Xuchang Radio and Television Station)

Application of Big Data Technology in News Gathering, Writing and Editing

Abstract: With continuous technological advancement and accelerating information technology development, industries across society are experiencing exponential growth in data volume, profoundly impacting sectoral evolution. In response to this information deluge, big data technology has emerged as an essential tool. Identifying newsworthy material from vast information pools has become a primary focus, with predictive analytics offering significant guidance for market understanding. In journalism, big data technology proves highly effective for information collection, retrieval, analysis, and processing—delivering superior efficiency and analytical power that substantially benefits the news industry. This paper analyzes big data technology' s impact on news gathering, writing, and editing to explore its potential applications in journalism.

Keywords: big data technology; news gathering and writing; news editing

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Author: Wang Fang

Journalism fundamentally requires adherence to truth-seeking principles. News workers must separate personal opinions from factual reporting, ensuring all content reflects actual conditions. News must maintain timeliness and news value. During interviews, journalists should listen more than speak; during writing, they must verify information, maintain impartiality, and ensure objectivity.

1. Big Data Technology in News Gathering and Writing

1.1 The Importance of Big Data for News Gathering and Writing

The big data era has intensified pressures facing journalists. To better manage information overload, the industry has introduced big data technology, which efficiently processes massive datasets through collection, storage, and analysis to extract valuable insights. This significantly reduces journalistic workload while facilitating information acquisition. Additionally, big data enables visualized news dissemination, greatly enhancing timeliness. Modern big data repositories contain extensive information, and effectively processing and utilizing this data represents a critical challenge. News gathering and writing inherently involve confronting vast information streams—precisely where big data technology excels, enabling more refined and efficient work.

1.2 Information Classification

News gathering and writing require categorizing diverse events. In this age of information explosion, manual data classification proves inefficient. Big data technology offers substantial advantages in collection, classification, and mining processes, prompting many journalists to adopt these tools for information management. By integrating and feeding data back to audiences, journalists can better convey news scenarios and immerse viewers in news contexts. The big data era demands higher standards for practitioners and the industry—not only collecting data but also integrating, processing, and analyzing it to gain deeper insights into social impacts and public sentiment.

1.3 Hotspot Prediction and Capture

Big data technology's superior processing capabilities make it invaluable for news gathering. Two primary methods exist for predictive analytics: real-time monitoring of word frequency to forecast hotspots, and establishing media resource databases. Real-time monitoring of trending terms on social media reveals current audience concerns, enabling journalists to track public attention patterns. These systems can also identify connections between hot topics, facilitating proactive planning. News demands timeliness and must capture audience attention—fresh content proves most compelling. Database construction through big data technology provides crucial support by offering comprehensive interviewee information for question design and contingency preparation.

2. Big Data Technology in News Editing

2.1 The Importance of Big Data for News Editing

Big data technology serves as a critical tool for data mining and information processing. In today' s information-centric environment, effective utilization and value extraction from massive datasets have become focal points across industries. While news editing may appear less demanding than reporting, it functions as the primary mechanism for supervising and controlling news publication. Editors must ensure content meets publication standards and remains accessible to the public—a process involving substantial workload. Visualization transforms numerical data and inherent relationships into visual formats like images and animations. Big data technology excels at processing data relationships, enabling efficient visualization while uncovering deeper connections than manual methods. Tasks including data compilation, organization, editing, and integration consume significant resources, but big data technology can automate these processes according to predefined parameters, dramatically improving editorial efficiency.

2.2 Visualization Processing in News Editing

Big data technology' s primary application in news editing is data visualization. Its most direct and significant impact on news presentation is the emergence and proliferation of data journalism, now widely adopted across the industry. Data journalism presents content through images and charts, enabling more intuitive audience comprehension. For example, presenting regional economic development as line graphs not only displays data clearly but also reveals trends and facilitates comparisons, making economic strengths and weaknesses more readily apparent.

2.3 Innovation in News Editing

The editing process involves refining news drafts, which may contain various issues requiring verification, language adjustments for readability, and alignment with public consumption habits. Innovation is particularly crucial—entities that fail to evolve with the times risk losing audiences. Big data technology can analyze contemporary reading habits to create layouts that better suit popular tastes, integrating symbols of the era into news content to attract greater attention.

Big data technology enables efficient analysis and utilization of massive information streams, precisely matching the data processing demands of news gathering and editing. Its expanding application in journalism has proven instrumental for industry development.

[1] Hou Yi. A Discussion on Editorial Philosophy and Editorial Capability Innovation—From the Perspective of Data Journalism[J]. Gathering, Writing, and Editing, 2018(1): 45-46.
[2] Chen Xiuhui. The Application of Big Data Technology in News Gathering, Writing, and Editing[J]. New Media Research, 2018(6): 36-37.
[3] Guo Junshuai. Research on Innovation in Television News Program Models in the Big Data Era[J]. Information Recording Materials, 2017(7): 72-73.
[4] Liu Minghua. Layout Design Must Keep Pace with the Times[J]. Vitality, 2018(8).
[5] Shao Quanhong. The Disruption and Reconstruction of Traditional Media News Production by Mobile Aggregation New Media—A Case Study of Toutiao' s News Production Model[J]. News Enthusiasts, 2017(1): 37-40.
(Author affiliation: Heze City Dingtao District Radio and Television Station)

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