

Development and Application of New Media Technology in the News Communication Industry: Post-print

Authors: Sun Yan

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

Abstract

With the continuous development of socioeconomic, cultural, and technological spheres, journalism has undergone technological transformation. Nowadays, new media technologies are widely utilized, ushering journalism into a new era of digital information and exerting a profound impact. Digital media technology finds increasingly widespread application in daily life, and its influence on journalism grows ever more significant. New media technology leverages novel technological means for information dissemination, thereby expanding the channels of news communication and enhancing its velocity. While new media technology has brought positive effects to traditional media, it has also posed challenges; thus, only through continuous development and innovation can the advancement of journalism be effectively promoted. This paper analyzes, through the lens of the rapid development of new media technology for modern information dissemination, the existential challenges and development strategies that this technology has engendered for traditional media. Against the backdrop of new media technology's continuous application to information dissemination, traditional media can only capitalize on the developmental momentum of new media technology and integrate into the broader tide of the information era by actively embracing new media technology and pursuing innovative development.

Full Text

Introduction

With the continuous development of society, economy, culture, and technology, news communication has undergone significant technological transformation. Today, the widespread application of new media has ushered news communication into a new digital information era, exerting tremendous influence. Digital media technology is increasingly integrated into daily life, and its impact on

news communication continues to grow. New media technology employs novel technical means to disseminate information, expanding news communication channels and enhancing transmission speed. While bringing positive impacts to traditional media, new media technology also presents challenges, making continuous development and innovation essential for advancing news communication. This paper analyzes the survival dilemmas and development strategies facing traditional media amid the rapid evolution of modern information dissemination technologies. Under the backdrop of new media technology's continuous application in information dissemination, traditional media must actively embrace these technologies and pursue innovative development to ride the wave of new media technology and integrate into the information age.

According to the *China New Media Technology Development White Paper* (2015), "new media" primarily refers to works with digital content at their core, transmitted through modern network carriers and delivered to network terminals via comprehensive service systems for user consumption. This definition emphasizes that network is the primary transmission channel, excluding media such as optical discs. Furthermore, against the backdrop of continuous media digitization, new media encompasses extensive content, including not only hardware digital technology devices capable of storing, receiving, and transmitting digital information but also software containing digital information content. In a narrow sense, new media refers to media forms that disseminate via networks and mobile terminals, distinct from traditional print media. With the rapid development of new media technology, various communication platforms have emerged, such as Weibo, WeChat, and client applications, offering rich and diverse communication forms. New media technology plays an increasingly important role in multiple aspects of journalism, including news dissemination forms, information collection, and content production.

1. Applications and Impact of New Media Technology in News Communication

1.1. Social Media Platforms

1.1.1. Weibo Enables Content Sharing Since the advent of Weibo and WeChat, many traditional media outlets have established their own accounts on these platforms, utilizing them to publish real-time news, collect opinions, and gather evaluative feedback. This provides convenience for their development and promotes growth. Some traditional media now operate their Weibo and WeChat platforms effectively. For instance, Sina Weibo's Media Hub gathers various traditional media from different regions, enabling content sharing across different media categories.

1.1.2. WeChat Delivers Real-Time News The annual Two Sessions provide numerous media outlets with opportunities to showcase their capabilities. During this year's Two Sessions, *People's Daily* performed exceptionally with its

“Central Kitchen” series, employing innovative methods such as HS, VR, visual charts, and short videos. Notably, five news items about HS technology pushed through its WeChat Official Account achieved 20 million reads, with each item exceeding 100,000 views. One article titled *NPC Press Conference Group Chat: Fu Ying Invites You to Join* garnered 5 million clicks on its HS page. After witnessing the positive effects of this “WeChat group chat” press conference approach, many new media outlets rushed to imitate it. Consequently, *Shake to Listen to the Premier’s Government Work Report* was incorporated into WeChat’s “Shake” function. To capture the essence of this feature, the HS product transformed key report points into keywords, allowing users to easily change keywords by shaking their devices. This enabled users to access not only the original report text under each keyword but also listen to the Premier’s voice. Thanks to these advanced experiences, the product obtained over 2 million user clicks on its launch day [1].

1.2. Diversified Communication Forms

1.2.1. Visualized News Production To simplify complex news information, visualized news has been promoted through the “two micros and one end” ecosystem (Weibo, WeChat, and client apps). This approach uses concise text paired with a single image to vividly convey key content from government reports to the public, as demonstrated in articles like *Ten New Terms in the Government Report: Learn Them Now!*

1.2.2. Live Streaming Technology Integration The product *Real-Time Cloud Live Streaming: Watch Two Sessions in Your Friend Circle* successfully combined images, text, video, audio, and live signals, launched via WeChat by the Central Kitchen. Within six days of launch, it had already attracted over 5.1 million visits. When users entered the page, they could view information posted by different personnel, such as Two Sessions editors and photographers. While reading these posts, users could like news items of interest or refresh continuously to obtain more immediate important information. Additionally, Weibo introduced video live streaming for the Two Sessions, with users clicking to watch sessions exceeding 1.47 billion views.

1.2.3. VR Technology Application The popular cutting-edge technology of VR was also employed by multiple media outlets, including *People’s Daily*, Xinhua News Agency, China News Service, Baidu News, and Sina News, to cover the Two Sessions. By using panoramic cameras to record the events, users could access immersive reports by clicking on VR special pages from major media outlets on their mobile phones. This panoramic coverage enables users to experience news more vividly and three-dimensionally, increasing their attraction to news content and creating a sense of being on the front lines of reporting, making it easier for them to empathize with the coverage. Beyond these functions, *People’s Daily* also applied VR works on its client application through pieces like *VR Takes You Into the Venue: The CPPCC Opening Ceremony*, allowing users

to participate in the opening ceremony from home as if they were physically present, truly listening to the national anthem and representative speeches.

2. Transformations in News Content and Communication Patterns

2.1. Enhanced Personalization and Humanization

News recommendations on WeChat and client applications are based on big data analysis. Domestic news client applications are numerous, each with unique positioning and focus. For example, Tencent News combines news information collected from other media, enabling rapid keyword searches for news reports on the same topic from various sources. This provides audiences with more choices from both substantive news content and news sources. Similarly, influenced by digital technology, diversified news communication also includes humanization. This humanization is reflected in how digital technology records users' daily browsing information and preferences on news client applications to form big data, which then enables personalized adjustments according to user needs. Ultimately, each audience member enjoys customized news content—a progress that traditional news communication could never achieve.

2.2. Growing Audience Autonomy in News Selection

Using Weibo's hot search list as an example, trending topics are selected based on sustained public attention and click rates—hot events chosen by public engagement. However, in traditional communication, hot events were generally determined by their social importance and media emphasis. Weibo has broken this convention. While the internet changes rapidly and news hotspots are diverse, these hotspots tend to be superficial. This creates a need for traditional media to cooperate in deeply excavating valuable news topics, drawing public attention and enabling effective resolution of these issues.

2.3. Expansion of Public Opinion Supervision

In the widespread application and development of the internet, new media technology has broken down boundaries between news, entertainment, advertising, and commentary to some extent. This has made news reporting more entertaining, reducing its seriousness while increasing audience participation. People can provide effective feedback on disseminated news through WeChat and Weibo, offering opinions for news planning and adjustment. Furthermore, media outlets can conduct activities through these communication channels, during which audiences can exercise their rights to evaluate and supervise news, thereby realizing public opinion supervision. This strengthens the function of news oversight and enhances news authenticity to some degree.

2.4. Increased Interactivity in News Content

WeChat and Weibo in digital media possess characteristics of interactivity, broad reach, and rapid updates, enabling fast news dissemination. Information publishing on the Weibo platform can be regarded as a breakthrough of new media technology in news communication. The development of today' s new media technology represents a “media technology revolution” for traditional news communication forms. We must have the courage to face, respond to, and adapt to era development [2][3].

3. Challenges and Problems Posed by New Media Technology

3.1. Threats to User Privacy

In today' s technological landscape, both legitimate and illegitimate channels collect news or data, increasingly exposing people' s privacy. Currently, some social network companies sometimes conceal information usage from users, eroding trust. In today' s globalized information environment, data correlation is stronger under big data conditions—fragmented data can be matched and identified through certain correlates, making user information recognizable and threatening privacy security. Therefore, personal privacy protection should be placed on the agenda of regulatory agencies, legislative bodies, and other relevant institutions.

3.2. Erosion of Ethical Standards

New media technology has brought a “media revolution” to news communication, and live streaming has greatly increased exposure, capturing public attention while also facilitating the spread of pornography, gambling, drugs, and violent information, leading to a wave of vulgarization [4]. As information dissemination becomes easier, both positive, valuable content and negative information spread simultaneously. Internet freedom and privacy protection encourage reckless online behavior—insults, rumors, theft, and fraud online impact ethical standards, requiring audiences to make moral judgments and take moral measures.

3.3. Threats to Traditional Media

Although the birth of new media technology has assisted professional media in news publishing and dissemination, it has also created obstacles for traditional media development. Whether on Weibo or WeChat social platforms, people enjoy the democratic right to free speech, making everyone an information disseminator and publisher. Many media outlets and self-media currently maintain Weibo accounts and WeChat Official Accounts, allowing audiences to find relevant information on their Weibo or WeChat platforms. This demonstrates that traditional media is no longer the sole channel for news publishing and

dissemination, as self-media gradually reduces traditional media's advantage in information sources, thereby drawing industry attention.

4. Strategies to Prevent and Mitigate Negative Impacts

4.1. Strengthening Network Control Through Legal and Policy Measures

While network progress brings beneficial impacts to the news communication industry, it also introduces drawbacks, such as user information leakage that criminals can exploit. Therefore, strengthening network legal and institutional construction is an urgent task. We must vigorously train network law enforcement personnel and employ technical means to prevent various online illegal behaviors, ensuring healthy network development.

4.2. Leveraging Traditional Media Influence to Reduce New Media's Adverse Effects

The public places greater trust in traditional media for its credibility and authenticity. However, when the public is unclear about facts and ill-intentioned individuals spread rumors through online media, public panic can ensue. Consequently, traditional media should be utilized to help the public understand the truth, reducing suspicion and panic.

Conclusion

New media technology has brought unprecedented impacts to news communication. To enable new media technology to better serve news communication in the new era, traditional media must understand and utilize new media technology, integrating into this great wave.

References [1] Li Jing. Thoughts on Promoting Party Building Work Using New Media as a Carrier [J]. *News Front*, 2018(18): 149-150.

[2] Zhao Guang. Research on the Dissolution and Reconstruction of Editorial Functions by New Media Technology Development [J]. *Research on Communication Power*, 2018(10): 125.

[3] Lai Wei. How to Apply New Media Technology to Promote the Transformation and Development of Radio and Television Stations [J]. *West China Broadcasting & TV*, 2019(14): 53-54.

[4] Zhang Zupin. Application of New Media Technology in In-depth Counseling of College Counselors [J]. *Forest Teaching*, 2014(10): 122-123.

[5] Xu Aiguo. Research on the Application of New Media Technology in Party Building Work Among College Students [J]. *Forest Teaching*, 2016(1): 70-71.

(Author's Affiliation: Shanxi Jincheng News Media Group)

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

Source: ChinaXiv – Machine translation. Verify with original.