

Innovation and Development of Television Production Technology in the Converged Media Era (Post-print)

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Abstract

Media convergence represents the defining trend of the contemporary era. Many perceive that television has been abandoned by today's youth, deeming it unworthy of development or attention given the perceived sufficiency of smartphones. However, in actuality, although the traditional television industry has experienced substantial disruption, it remains irreplaceable. This paper primarily elaborates on the utilization of contemporary television production technologies, integrated with advanced computer technology, to enhance television production techniques in the converged media era through innovative technologies, thereby enabling audiences to experience richer, higher-quality programming.

Full Text

Preamble

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Title: Innovation and Development of TV Production Technology in the Era of Media Convergence

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Abstract: Media convergence is the trend of our time. Many believe that television has been abandoned by today's youth and is no longer worth developing or paying attention to—smartphones are sufficient. However, while the traditional television industry has faced significant impact, it remains irreplaceable. This paper primarily expounds on the use of current television production technology, combined with advanced computer technology, to improve television production technology in the era of media convergence, innovate techniques, and enable audiences to see richer, higher-quality programs.

Keywords: media convergence; era of media convergence; television production technology; computer technology; television

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2.3 Media Crossover in Television Production in the Era of Media Convergence

In today's era where smartphones are ubiquitous and information technology is developing rapidly, we live in an age of information interaction and dissemination. The media industry keeps pace with this trend, with new media being one of its representatives, and the speed of information dissemination has exceeded people's imagination. Traditional television media primarily showcases life scenes through visual means and camera work, creating a distant relationship between programs and audiences without a sense of engagement. In contrast, new media demonstrates interactivity, and the intersection of media can integrate various resources. However, it is precisely the impact of new media that has placed tremendous pressure and challenges on the traditional television industry. The rise and development of emerging information technology is an irresistible trend; therefore, blocking it is impossible. The only way forward is to transform, integrate, and innovate. Media convergence has emerged in response to this need, making it essential to explore new television production technologies and pursue innovation and development.

1. Related Concepts and Current Status of Media Convergence and Television Production

Media convergence, as the term suggests, refers to the integration of media. It utilizes its own advantages to effectively consolidate media with communication functions such as broadcasting and newspapers, achieving the goal of resource and information promotion. In the era of media convergence, information dissemination is not constrained by time or space, thereby ensuring its effectiveness. "Convergence" is a chemical reaction, more importantly, it is about inclusive creation [1]. The author believes that currently, most media are still operating in isolation, with central media convergence being more urgent than local media convergence.

2. Characteristics of Television Production Technology in the Era of Media Convergence

2.1 Television Production as Visual Communication Art in the Era of Media Convergence

Currently, almost everyone owns a smartphone, mobile internet coverage is gradually improving, and applications such as QQ and WeChat have become primary means of information transmission and communication for many people. The widespread application of new media has significantly impacted traditional media, and television programs have been affected to a certain extent, necessitating the integration of old and new media. Visual communication integration is primarily achieved through network media projects; for instance, post-production visual communication for television programs relies on editing and new media, and platforms can be used to promote television programs [2].

2.2 Cross-boundary Integration in Television Production in the Era of Media Convergence

In the context of new media, television program production can fully utilize these resources. For example, after filming is completed, software can be used for delivery; text articles and press releases can be uploaded and shared through advanced software and technology; related reports can be viewed through mobile client applications; and television programs can be produced through their own client platforms. Audiences can watch television programs via computers, mobile phones, tablets, and other devices, with the ability to replay and fast-forward. This innovation is primarily manifested in the cross-boundary integration of media [3].

3. The Necessity of Innovative Development of Television Production Technology in the Era of Media Convergence

3.1 The Need for Modern Film and Television Company System Construction

Times are changing, and film and television companies are developing. These companies typically organize entire television or other projects before seeking financing or investment. How to make the market recognize one's enterprise, how to enhance corporate reputation in the market to obtain more resources—these are issues that modern enterprises must consider. Previously, television stations were state-owned enterprises with many constraints. Simultaneously, the television industry faced supply shortages, leading to problems between projects and enterprises. This necessitates innovation, that is, reforming modern enterprise systems according to actual conditions to fundamentally resolve issues between production projects and enterprises [5].

3.2 The Need to Adapt to the Market

Only by adapting to the market and macro-regulating it in the general direction can economic development be maximized. For example, iQIYI is a video platform with a competitor. If both have similar capital, but iQIYI has stronger promotion, better quality, and better reputation, it will gain priority for broadcasting rights. However, once iQIYI remains unchanged while its competitor adopts new technology, reducing costs and improving quality, will audiences still choose iQIYI? Moreover, film and television quality affects corporate image; once quality is poor and social image is compromised, acquiring further market share requires greater costs. In the internet era, people have more convenient channels for obtaining information, while traditional television programs have long production cycles and poor timeliness. Therefore, television media practitioners must readjust the original structure of television programs to expand their audience base and social influence [6].

3.3 The Need for Corporate Brand Enhancement

We all understand the role of reputation. People take pride in joining large enterprises; renowned enterprises attract more talent and more clients. Innovation in production projects, talent innovation, and enterprise reform innovation all enhance corporate brand and generate positive benefits. Different media platforms have different demands for programs. Due to differences in life experiences and thinking patterns, individuals exhibit diverse preferences in media selection. Therefore, it is essential to utilize new media to explore new development ideas and enhance the core competitiveness of television programs [7].

3.4 The Need for Television Production Development

The rapid development of new media has led to the promotion of numerous new projects on internet platforms. Different television stations can learn from the editing formats of similar programs to reform high-quality shows. For instance, Jiangsu Satellite TV has removed highly-rated programs such as *If You Are the One*, parent-child programs like *Where Are We Going, Dad?*, and reality shows like *Running Man*. Television media practitioners should not blindly assume that television programs only use broadcasting platforms; they need to combine the diverse characteristics of media platforms for dissemination, planning and editing each program with new media thinking, and trying different angles for different media platforms. For example, in live broadcasting, colloquial language can be used to shorten the distance between audiences and news. More importantly, there is a need to guide the preparation of high-end, positive television programs, excavating substantive content to ensure the guiding and educational role of television programs toward audiences. Content is a necessary factor in the formation of television news and a crucial basis for determining its quality and ratings. Since the common form of television news often features a presenter introducing information at the forefront, the dissemination methods of television news in the media era require innovation to enhance its influence.

5.1 Conducting User Demand Analysis

Only by understanding who the consumers of a product are can it be sold; the same applies to television programs. The audience is paramount, but traditional television broadcasting is one-way, allowing only passive selection and acceptance. Therefore, television media practitioners need to deeply understand viewers, actively using big data platforms through various channels to analyze audience viewing habits and demands, understand relevant information, and timely innovate program content and style. For example, during program broadcasting, the internet and telephone can be used to interact with audiences. *I Am a Singer*'s recording site setting up public judges and conducting online voting is an excellent method. Meanwhile, television program editing should be more concise, as people receive too much information daily. For reports on breaking events, mobile phones can be used directly for photography. In reporting these events, the reasonable use of internet language can, under the influence of internet culture, improve program timeliness and interest, shortening the distance between audiences and programs [10].

5.2 Utilizing Computer Technology to Innovate Television Programs

In television program production and editing, the advantages of computer technology can be leveraged to provide convenient services for audiences, thereby enhancing the humanization level of television programs. Viewers can set program playback order and adjust content through network devices, thus improving program ratings. Computer network technology enables resource and data sharing, facilitates information retrieval, and simplifies television program editing and production, thereby shortening production cycles and enhancing post-production quality. Computer technology provides convenience for editors and promotes the development of television programs. In program production and broadcasting, computer technology can enable remote editing and facilitate audio-visual transmission and sharing. Media convergence itself involves numerous advanced technological means, which can effectively integrate television news with electronic devices such as computers and mobile phones, expanding public access to social information, increasing means for information retrieval, and improving the timeliness of information dissemination.

5.3 Innovating the Office Mode of Television Production Management

Imperfect work mechanisms constitute a major problem in operations, such as flawed evaluation and reward methods, incentive and constraint mechanisms, and a lack of innovative thinking among relevant staff. Additionally, some leaders consider economic and administrative management as primary tasks, lacking a sense of responsibility and enthusiasm for television production innovation. Furthermore, there is no investment return or profit. For example, investing

hundreds of millions annually in website construction is no longer profitable—a very realistic problem. Especially under current television business conditions, investing funds without returns is unsustainable. There are also issues regarding unclear understanding of laws related to new media operations. As practitioners in the traditional media field, there is still confusion about what the fundamentals of Chinese television are, what crises we face, and what dilemmas confront us. During the process of media convergence, how we should proceed and the choice of path are key issues requiring continued exploration [9].

5.4 Conceptual Innovation and Comprehensive Quality Improvement

First, cognition is fundamental. Management personnel need to transform their mindset, not blindly executing previous project plans or rejecting new things. They must embrace innovative thinking, yet not completely abandon past concepts, proceeding from reality and implementing through exploration. This can be gradually introduced through lectures and other methods to disseminate relevant knowledge and achieve ideological transformation. Second, the overall quality of all personnel must be improved, regularly inviting experts to conduct training on new materials and designs to broaden horizons and stimulate creativity. Finally, a practical reward and punishment mechanism can be established to enhance employee motivation while penalizing those who are not down-to-earth.

5.5 Organizational Structure Innovation and Work System Improvement

In the era of converged media, with the rapid development of television news program quality and advanced information technology, innovation in news production is the most powerful force driving television news reform and a key system for improving the television news industry structure. Therefore, the television news production process requires innovation. The author recommends improving corporate supervision mechanisms to safeguard staff rights and interests, perfecting the organizational structure of individual projects to conduct television production with optimal cost-effectiveness, and refining television production work mechanisms to enhance the combat effectiveness of production teams. Improved mechanisms should facilitate work direction, such as conducting extensive, multi-level education and training for relevant staff.

5.6 Technological Innovation and Diversified Development

Technological innovation refers not only to innovations in technology used during television production but also to innovations in management. Television production technology innovation involves companies adopting, referencing, or independently developing new technologies, processes, and production models to

enhance the technical content of television production and improve market competitiveness. Product determination can be based on market or client demands, which then determines the technology, working backward to figure out how to integrate new technologies into production. Only by using new technologies in television production project management can program quality keep pace with social demands and maximum economic benefits be achieved. Moreover, only by mastering core technologies can enterprises secure a place in the market and lay the foundation for other innovations. Television production management technology innovation is key to the flawless execution of television production. For film and television companies, project management technology is one of the main factors determining program quality levels, with management techniques being the magic weapon for improving project efficiency. Modern people cannot live without the internet; with an open mindset, they should embrace rapidly developing information-related office software or tools, actively exploring to find or innovate office methods. In the information age, technological innovation can extend enterprise life; only through innovation can enterprises stand firm through history.

In the process of television production, applying and innovating technology will enable it to move forward directionally in the era of media convergence. Of course, the public is the judge; only by undergoing the baptism of fierce competition can classics emerge. Practitioners in this industry need to take a long-term perspective, correctly view new media, learn from its strengths, and while changing mindsets, showcase the charm of this industry, allowing television to shine in the brand-new era of media convergence.

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