Discussion on Key Technologies for Integrating Journal New Media Operation Platforms (Post-print)

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Abstract

The pace of technological advancement is accelerating, with smartphones and high-end computers entering millions of households in tandem with social development. In this context, new media technologies have emerged and, following preliminary development in recent years, have begun to take shape. This paper explores the key technologies for the integration of journal new media operation platforms.

Full Text

Discussion on Key Technologies for Integrating New Media Operation Platforms for Journals

Abstract: With the accelerating pace of technological discovery, smartphones and high-end computers have entered millions of households along with societal development. In this context, new media technology has emerged and, after years of preliminary development, has begun to take shape. This paper explores the key technologies for integrating new media operation platforms for journals.

Keywords: new media; content operation platform; content integration; triple-network convergence; new technology

In today's society, computer technology is advancing at an increasingly rapid pace, becoming more sophisticated and miniaturized, progressing at what can be described as breakneck speed. Simultaneously, network technology has grown increasingly powerful, making vast information accessible at our fingertips. Whether we seek information from wired or wireless networks, the internet serves as a magic mirror, providing us with everything we need. These developments have invisibly propelled the growth of multimedia technology, which has

profoundly transformed traditional image transmission systems, making them more sophisticated and enabling clearer delivery of images, data, and audio. Consequently, the television manufacturing industry has been revitalized, with new televisions being produced in large quantities. Through the application and development of these new technologies, modern televisions have overcome the limitations of traditional models, offering viewers a clearer perspective on the world.

The continuous evolution of new media technology has also led to increasingly high demands for video and audio quality among consumers. Electronics manufacturers have recognized this shift in user needs and have continuously innovated their products to meet the diversified demands of the modern market. As industries become increasingly specialized, user segments have also become more refined, with manufacturers offering different products for different customer categories. In this critical situation, technological innovation in new audio and video processing has become imperative. Without accelerated innovation, companies risk falling behind the wave of technological revolution and being eliminated by the times.

The rapid development of modern society has created diverse demands for media products among growing new media audiences. This creates a dual impact on production requirements. When production volume is small, the issues are not significant. However, once production scales up, the problems become magnified. The gap between demand and production expands, potentially leading to uncontrolled situations and triggering a cascade of problems that can cause producers to operate at a loss and suffer significant economic damage. In such scenarios, producers often resort to hiring large numbers of employees and purchasing equipment to address urgent needs, but this approach is clearly misguided. While it may provide temporary relief, the surplus equipment and personnel eventually become idle resources, resulting in severe social waste.

To address these challenges, we innovatively propose a new multimedia model. This model requires building a bridge between basic platforms and multi-service platforms to facilitate smooth communication between them. This approach benefits mutual exchange of experiences and information, promoting development on both sides and advancing new media overall. The model employs a star-shaped structure that effectively balances various aspects and promotes their coordinated development. At its core is a central program production platform where information can be shared and exchanged, fully leveraging the advantages of multimedia technology to promote mutual development. Through this platform, departments can utilize each other's production processes to save time and money, achieving true distributed resource sharing and remote collaborative operations—delivering optimal results with minimal cost and time while fully harnessing the power of new media technology. In this model, platforms can not only exchange information but also provide business support to each other, introducing newly developed products to accelerate industry progress.

1. Content Integration Platforms Determined by New Media Business Characteristics

Current content integration platforms are heavily influenced by the characteristics of new media businesses—in essence, they are largely determined by them. New media permeates every corner of our lives. In the television industry alone, we can categorize it into online web television, live broadcast television, mobile television, and in-vehicle television. As society continues to develop and new media technology departments become increasingly specialized, more divisions are created. If each department did not divide labor, a single department would have to complete all the work, multiplying the workload and creating inefficiencies. This would waste human and material resources while hindering successful completion of tasks.

New media cultural products are generally more comprehensive than traditional media products due to their broader application of technology. Because they are produced directly according to market demand, new media cultural products are more closely aligned with market needs and practical requirements. However, this also means they are inevitably subject to market value laws, exhibiting fluctuations similar to commodity value laws but with much greater amplitude—differences between peaks and troughs may reach several hundredfold. Therefore, simply buying equipment and hiring employees, or selling equipment and laying off staff, cannot truly resolve the contradiction between production capacity and market demand.

To ensure that all departments' information and technology can be shared on the platform, we must establish relevant systems to guarantee universal access to resources. Only through formal system establishment can this goal be truly achieved rather than remaining theoretical.

2. Analysis of Flexible Production Technology Models

Based on our series of experiments, we have preliminarily determined that a flexible production model should possess the following characteristics:

2.1 Production Models Across Different Regions

Given the current situation of division of labor and cooperation among different departments, we must consider production circumstances across different regions and determine how to arrange communication platforms so that departments in different locations can share information and technology in a timely manner. Only through such exchange can we achieve mutual success, and true development occurs only when all departments develop together. Our goal is to enable timely information exchange and sharing regardless of time or distance. To achieve this objective, we need to implement a BS multimedia system that publishes all department-shared information chronologically on the platform.

This approach facilitates management and aids in data retrieval, improving organizational clarity.

2.2 Application of Diversified Formats

Due to the continuous development of modern multimedia technology and the continuous improvement of multimedia division departments, the television industry is constantly evolving, with video programs changing rapidly. To achieve further development, we must accelerate multimedia technology innovation, particularly in video and audio processing technologies. How to make sound more stereoscopic and images clearer are questions worthy of our consideration.

2.3 Basic Methods for Video and Audio Processing

Regarding this aspect, traditional methods are already quite abundant. However, with the rapid development of multimedia technology, more and more cultural products are being produced through multimedia technology. Here we must mention another technology. If customers do not have special requirements, this single technology is sufficient for ordinary processing procedures, such as titles, special effects, and animations.

3. Application of Multimedia Technology in Daily Life

Multimedia technology permeates every corner of our lives. As an example, let us consider the widely known Beijing Olympic Games, whose successful hosting has been a source of pride. While we marvel at the ingenious design of the Bird's Nest, the multimedia system at the Beijing Olympics is also worthy of analysis. The video control center, located at the core of the venues, could control all video resources throughout the complex—nothing could escape its oversight.

4. Conclusion

Through this discussion, I hope everyone can gain a better understanding of multimedia technology, embrace it, and enable it to fulfill its proper value in our lives. I also hope that multimedia technology will continue to innovate and achieve greater development.

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