

Application and Innovation of Computer Graphics Design Courses in Journalism Education under the Context of Media Convergence

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Abstract. With the deep development of media convergence, journalism education faces new challenges and opportunities. Computer graphics design plays an increasingly important role in news gathering, editing, and dissemination. This paper aims to explore the current application of computer graphics design in journalism education under the context of media convergence and proposes innovative strategies to meet the talent development needs of the multimedia era.

Keywords: Media Convergence, Journalism Education, Computer Graphics Design.

1. Introduction

Media convergence refers to the deep integration of traditional media with emerging media across aspects such as content, channels, platforms, and management. In this context, journalism education must keep pace with industry developments to cultivate news professionals equipped with multimedia skills. Graphics and image processing technology, as a vital tool in news dissemination, plays a particularly crucial role in the application and innovation within journalism education. [1].

2. Media Convergence and Journalism Education

2.1. Overview of Media Convergence

The concept and practice of media convergence are deepening globally, involving a combination and synergy across multiple levels. First, let's analyze the characteristics, including technological convergence, content convergence, channel convergence, and industrial convergence. Technological convergence serves as the foundation of media convergence. The development of digital and internet technologies enables traditional media, such as newspapers, television, and radio, to disseminate content through online platforms, achieving multi-platform distribution. This convergence demands that journalism education not only teaches traditional news theories but also covers the application of digital technologies. Content convergence means that the boundaries between different media forms are becoming increasingly blurred. For instance, news websites provide not only text reports but also videos, audio, and interactive charts. Journalism education needs to cultivate students' ability to produce cross-media content, allowing them to effectively disseminate information across different platforms. With the advancement of internet and mobile communication technologies, the channels for information dissemination have become more diversified. Journalism education must focus on the characteristics and operation of these new channels, teaching students how to leverage multiple channels for news dissemination. The convergence of media industries has led to diversified operations among media organizations. Journalism education needs to pay attention to these industrial changes, fostering students' understanding of the media landscape and how to identify career opportunities within a cross-industry environment.

From a formal perspective, analyzing the context of media convergence reveals that the journalism industry showcases various forms, including cross-media operations, multimedia integration, and personalized customization. The cross-media operation form demands that journalists can switch flexibly between different media. Journalism education needs to train students in this area through practical projects. Integrating diverse media content requires students to master multimedia

production skills, and journalism education should offer relevant technical training. The production of personalized content requires students to understand user behaviors and preferences, so journalism education should include courses on data analysis and user research.

2.2. The impact of media convergence on journalism education

Media integration has profoundly impacted journalism education, reflected in several aspects.

Firstly, the educational content demands diversification in teacher skills and rapid curriculum updates. Journalism education no longer confines itself to traditional reporting and editing; it must also include new media skills. This shift necessitates a more comprehensive curriculum to meet the industry's demand for versatile professionals. As new media technologies evolve, journalism courses require continual updates. This condition demands that university educators possess foresight, allowing them to incorporate new technologies and theories into their teaching.

Secondly, the requirement for practical teaching methods is increasing, prompting interdisciplinary course structures. Practical training's significance in journalism education is becoming more evident. Through hands-on experience, students can translate theoretical knowledge into practical skills, essential for their career growth. Media integration necessitates collaboration between journalism and other fields, such as computer science and design. This interdisciplinary teaching model enriches students' knowledge base and enhances their innovative capabilities.

Furthermore, it is crucial to integrate an analysis of students' career development. As educators, one must perceive the shifting roles and refined job directions within the current journalism industry. Continuous technological advancements have diversified the role of journalists. Journalism education needs to foster students' adaptability, enabling them to thrive in various work environments. Media convergence presents broader employment opportunities for students. Journalism education should focus on industry changes and provide diversified career planning guidance.

3. The current status of graphic image processing technology in journalism education.

3.1. Technical Overview

"Computer Graphic Design" refers to the use of software for image processing, layout design, and information visualization. In journalism education, it typically involves the following technologies: image processing software, such as Adobe Photoshop, for photo editing, color correction, and special effects creation. Layout design software, like Adobe InDesign, is used for designing and formatting newspapers, magazines, and brochures. Infographic creation utilizes software like Adobe Illustrator for designing and producing charts and graphics. These technologies provide students with a rich set of design tools, making journalistic works more visually appealing.

3.2. Application domain

In journalism education, the application of "Computer Graphics Design" mainly covers areas such as news editing, data journalism, and multimedia reporting. Students utilize computer graphic design techniques for layout design and graphic arrangement of news articles. They convert data into intuitive infographics, enhancing the readability and persuasiveness of the news. Furthermore, integrating graphic design with other multimedia elements, such as video and audio, improves the overall impact of the news production.

3.3. Existing issues

However, there are some issues in the current application status. First, software updates happen rapidly, and educational content may not keep pace with technological advancements. With the swift progression of computer technology, various graphic and image processing software also undergo constant updates, necessitating ongoing updates to educational content to align with new technology.

Second, there's an emphasis on skills over theory; teaching often focuses on skills training while neglecting the education of graphic design theory. In actual teaching scenarios, some educators overly emphasize skill training and overlook explanations of graphic design principles, leading to students' insufficient understanding of design concepts. Additionally, practical teaching resources are lacking, with insufficient practical teaching materials, such as specialized software and hardware facilities. Due to limited teaching resources in schools, some students cannot access professional software and hardware, which hinders their practical skill development. Lastly, the evaluation system is inadequate; traditional assessment frameworks struggle to comprehensively evaluate students' graphic design capabilities. The current assessment system often prioritizes students' mastery of skills while neglecting evaluation of their innovative thinking and aesthetic abilities, which does not support their holistic development.

4. Innovative Strategies for Teaching the Course on Computer Graphics Design

4.1. Innovations in Teaching Content

Regularly update course content by incorporating the latest graphic design techniques and industry standards. For example, introduce emerging technologies such as AR/VR design and interactive charts into the curriculum to equip students with cutting-edge design skills. Additionally, enhance interdisciplinary integration by blending knowledge from journalism, design, and data science to enrich teaching materials. Moreover, utilize case studies, drawing on both classic and contemporary examples from the industry, to familiarize students with the practical applications of graphic design and stimulate their interest in learning.

4.2. Innovations in Teaching Methods

In terms of teaching method innovations, project-based learning can be utilized. By engaging students in real projects, they can learn through hands-on experience, thereby enhancing practical skills. For instance, designing a graphic report project on a current news event allows students to apply their knowledge throughout the entire process, from topic selection and planning to design and production. Additionally, the flipped classroom model can be adopted. Students can study online resources before class and use class time for discussions and practical exercises, thus improving their autonomous learning capabilities. Furthermore, hosting workshops and inviting industry experts for guidance and interaction can provide students with more learning opportunities.

4.3. Innovations in Evaluation Systems

In terms of innovation in evaluation systems, it is essential to prioritize process-oriented assessments that focus on student performance during the learning journey. This includes evaluating aspects such as participation, creative thinking, and teamwork. For instance, during project implementation, it is crucial to assess students based on their incremental achievements, encouraging them to unleash their creativity and continually optimize designs. Furthermore, employing a diverse set of evaluation criteria that incorporates skill assessments, theoretical tests, and project showcases provides a comprehensive evaluation of student learning outcomes. For example, organizing students to participate in industry design competitions allows the evaluation of their design abilities through competition results. At the same time, introducing industry feedback entails submitting student works to industry experts for review and obtaining feedback, which becomes an integral part of the evaluation process.

5. Conclusion

Media convergence poses both challenges and opportunities, prompting journalism education to find balance between the two.

Current challenges in education include a potential lack of new media experience among faculty. Solutions may involve bringing in industry professionals and training existing faculty members. Additionally, teaching resources require timely updates. Developing a curriculum that adapts to media convergence is complex, necessitating thorough market research and academic discussions among university educators.

Simultaneously, numerous opportunities await faculty to leverage. Media convergence stimulates innovation in teaching methods and content, driving new growth in journalism education. Interdisciplinary development fosters collaboration with other fields, enhancing academic research and disciplinary construction within journalism education.

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