How Interdisciplinary Integration Improves Journalism School Students' Creative Ability

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Abstract: The journalism and communication industry is experiencing unprecedented changes, and interdisciplinary integration has become a key factor in promoting the development of the industry. Relying on the national policy support for the development of media integration and the industry background of journalism education reform, the problems faced by journalism students in the cultivation of innovation ability are discussed in depth. Facing the challenge that the traditional journalism education model can hardly meet the needs of the new media era, the research method combining qualitative and quantitative is used to systematically analyze the role mechanism of interdisciplinary integration in improving the innovation ability of journalism students. The study shows that interdisciplinary integration can significantly enhance the innovation ability of journalism students, especially in promoting students' critical thinking, problem solving ability and ability to adapt to the changes of new media technology. In addition, it was found that interdisciplinary integration not only contributes to the enhancement of students' individual abilities, but also provides new ideas and motivation for the development of journalism education and the journalism industry.

1 Introduction

The ever-changing media environment is posing new challenges to journalism education. With the deep development of digitization and globalization, the journalism industry needs composite talents who have diversified skills, are able to switch freely between different platforms, and are
capable of innovative thinking. However, the traditional journalism teaching mode is often difficult to meet these needs, because it focuses too much on the separation of theoretical learning and skills training, while neglecting the integration of knowledge and the cultivation of innovation ability.

In the face of this challenge, journalism teaching in colleges and universities is in urgent need of reform. This is not only to adapt to the changes in the media environment, but also to cultivate journalism talents who can lead the future development of society. In this context, interdisciplinary integration has become an important direction for the reform of journalism education. By breaking the boundaries of traditional disciplines and combining journalism with other disciplines such as political science, sociology, information technology, etc., it can not only provide students with a broader vision of knowledge, but also stimulate their innovative thinking, thus enhancing their ability to solve complex problems. In addition, interdisciplinary integration also helps journalism students better adapt to the changing media ecology. In the current media environment, journalists not only have to report news, but also need to analyze data, design multimedia content, and even participate in the development and management of news products. These tasks require journalists to possess cross-disciplinary knowledge and skills, which are emphasized in interdisciplinary education.

Therefore, it is of great relevance to study how interdisciplinary integration can enhance the creative abilities of journalism school students. This can not only help journalism education institutions to reexamine and adjust the teaching content and methods, but also cultivate more excellent talents with innovative spirit and ability for the journalism industry. Under such an educational model, students will be able to better understand the social role of journalism, more effectively utilize technological means for reporting, and more importantly, they will be able to maintain their competitiveness in the ever-changing information environment and become true leaders of the information age.

In extant research, scholars generally agree that journalism education is facing unprecedented challenges and opportunities. With the deepening of media convergence, there is a growing demand for interdisciplinary knowledge and innovation ability in the journalism industry, which undoubtedly puts forward new requirements for the teaching mode of journalism schools (Wang, W., Chen, L., Wang, Yizhen, 2020). However, the existing journalism teaching system tends to focus on traditional professional skills training, and there is a relative lack of understanding and practice of interdisciplinary integration, which limits students' overall development and innovation ability (Ye Yuan-sheng, 2020).

This study aims to explore how to enhance journalism students' innovation ability through interdisciplinary integration strategies to cope with the rapid changes in the media environment. The research questions focus on: how to integrate more diversified disciplinary knowledge into journalism curriculum to stimulate students' innovative thinking? How to optimize teaching methods so that students can find the connection between theory and practice to achieve knowledge integration and innovation? In addition, how to build a teaching and learning environment that supports interdisciplinary collaboration in order to facilitate students' exchanges and collisions between different fields, thus giving rise to the possibility of journalistic innovation?

2 Current Situation and Challenges of the News and Communication Industry

2.1 Development trend of new media technology

The evolution of new media technology has rapidly influenced the news communication industry,
reshaping the mode of production and consumption of information. Technological innovation has not only given rise to diversified information carriers, such as microblogging, weibo, short videos, etc., but also greatly promoted the immediacy and interactivity of information dissemination. Such changes require journalism school students not only to have a solid professional foundation, but also to have an interdisciplinary vision and innovation ability.

The development trend of new media technology is reflected in the data-driven precision communication and the wide application of artificial intelligence. On the one hand, big data makes news production more personalized, and through in-depth analysis of user behavior, news organizations are able to provide customized information services. On the other hand, the intervention of AI, such as automatic writing and intelligent recommendation, is changing the production and distribution process of news, which requires journalism talents to have skills such as programming and data analysis to adapt to this change.

However, traditional journalism education tends to focus on the theory and practice of traditional media, with a relative lag in the understanding and application of emerging technologies. Therefore, journalism schools should embrace interdisciplinary integration, incorporate knowledge from the fields of computer science, data science and artificial intelligence into the curriculum, and cultivate journalism innovators with composite abilities. Through courses such as “Data Journalism” and “AI and Journalism Ethics”, students can master the core values of journalism while improving their ability to survive and develop in the digital age.

In this process, it cannot be ignored that technological progress is not everything. Over-reliance on technology may lead to a lack of humanistic care, and the authenticity and fairness of news may be challenged. Therefore, the goal of interdisciplinary integration should be to find a balance between technology and humanities, and to cultivate a new generation of journalists who understand both technology and journalism, and who can innovate and adhere to professional ethics.

2.2 Limitations of traditional journalism education model

When exploring how interdisciplinary integration can enhance the innovation ability of journalism students, the inherent limitations of the traditional journalism education model cannot be ignored. This model tends to overemphasize professional segmentation, resulting in students being too homogeneous in their knowledge structure and lacking in-depth understanding of other fields, thus limiting their ability to cope with complex issues in the context of media convergence. It is reflected in the following aspects:

First, the fragmentation of the curriculum system hinders the cultivation of innovative thinking. Traditional journalism education tends to divide the curriculum into strictly specialized modules such as journalism, advertising, public relations, etc. This division makes it difficult for students to form an interdisciplinary perspective in the learning process, which is not conducive to their ability to dig out novel reporting perspectives and communication strategies in the era of information explosion.

Secondly, the practical part is not connected with the theoretical teaching. Journalism education often focuses too much on theory teaching and neglects the close connection with practical work. In the fast-changing media environment, students lack sufficient opportunities to practice the application of new technologies and tools, which to a certain extent weakens their innovative ability and adaptability.

Furthermore, there is insufficient diversity in the faculty. Journalism school faculty members are
mostly from the journalism industry, and they may have limited understanding of emerging digital
technologies, data analytics and other fields, and are unable to provide comprehensive teaching
guidance. In this case, students may miss the opportunity to learn and master these critical skills.

Finally, the lagging nature of the evaluation system. The traditional evaluation method focuses
on the assessment of theoretical knowledge and neglects the assessment of students’ innovative
thinking, critical thinking and interdisciplinary problem-solving skills. This evaluation system is not
conducive to stimulating students’ potential in journalism innovation.

In order to break these limitations, journalism education should actively introduce the concept of
interdisciplinary integration, integrate knowledge from different fields, strengthen practical teaching,
cultivate diversified skills of the teaching staff, as well as reform the evaluation system, so as to
better adapt to the challenges of media convergence and stimulate students' innovative ability.

2.3 The necessity and urgency of disciplinary integration

It is particularly prominent in the rapid development of the news and communication industry.
With the rapid change of science and technology, the media environment has undergone radical
changes, and the traditional journalism education model can no longer meet the demand for
journalism talents in the new era. As revealed by the reform of journalism teaching in the context of
media convergence (Wang, W., Chen, L., Wang, Yizhen, 2020), it is crucial to keep abreast of the
times with teaching concepts and composite talent cultivation strategies.

Interdisciplinary integration can break the barriers between disciplines and stimulate the
innovative thinking of journalism students. In the study of sports journalism curriculum (Ye
Yuanxiang, 2020), this paper finds that the combination of journalism and communication and sports
humanities and sociology not only enriches the knowledge system, but also responds to the changes
in the media ecosystem. This interdisciplinary education model emphasizes practical courses, and
through alternate internships, it broadens the practical platform for students, enabling them to better
adapt to the needs of the international news communication market.

The reform of journalism education in the era of media convergence (Zhao Wenxin, 2017)
emphasizes the transformation of the philosophy of schooling, faculty, curriculum and other aspects.
Interdisciplinary integration helps to build a more comprehensive curriculum system and enhance
the professionalism and interdisciplinarity of journalism talents. It requires the faculty not only to
have a deep journalism background, but also to master professional knowledge in related fields in
order to guide students to explore and innovate in practice.

In addition, the concept of moral education in the new era (Ni Shaowang, 2019) also advocates
interdisciplinary integration to improve the effectiveness of moral education. Journalism education
can draw on this concept by integrating elements from other disciplines into the curriculum design
to cultivate students' critical thinking and sense of social responsibility, thus playing a key role in
journalism innovation.

Therefore, subject integration is not only a strategy to meet the challenges of the news and
communication industry, but also a catalyst to enhance students' innovation ability. By integrating
resources and reforming teaching modes, journalism schools are able to produce future journalism
practitioners with comprehensive abilities, who will tell the world's stories with innovative
perspectives and methods in the rapidly changing media environment.
3 Theory framework construction

3.1 Theoretical discussion of interdisciplinary integration

It is particularly important to study how interdisciplinary integration can stimulate the innovation ability of journalism students. Innovation, as a key force driving social progress, has increasingly become the core demand of journalism education. Interdisciplinary integration is not only a kind of educational conceptual innovation, but also a practical strategy aimed at breaking the traditional disciplinary boundaries and cultivating journalism talents with comprehensive perspectives and in-depth insights.

First of all, interdisciplinary integration encourages the intersection of journalism with information technology, social sciences, art and design, and other fields, and promotes the diversification of knowledge. This intermingling enables students to master novel skills such as data mining and visual narratives, enhancing their competitiveness in the digital media era. For example, by learning programming and data analysis, students can better understand and process big data, innovate news reporting methods, and realize the precision and intelligence of news production.

Secondly, integrated education emphasizes problem orientation rather than discipline orientation, and cultivates students' critical thinking and problem solving skills. When facing complex news topics, such as environmental reporting and social justice, students can analyze them from multiple perspectives, apply tools and theories from different disciplines, and propose more innovative solutions.

Finally, the learning environment of interdisciplinary cooperation can stimulate students' innovative spirit. The interactive process of team projects, in which students from different disciplinary backgrounds work together and collide ideas, is itself a hotbed of innovation, breeding diverse journalistic products and insightful perspectives.

In this theoretical exploration, this paper should not overlook the role of educators. Teachers need to have an interdisciplinary vision, update their teaching methods, and guide their students to navigate through multiple knowledge systems so as to cultivate innovative journalism talents in practice to adapt to the era of media convergence. The theoretical framework of interdisciplinary integration provides a potential innovative path for journalism education, which not only broadens students' knowledge boundaries, but also stimulates their innovative potential and injects new vitality into the journalism industry.

3.2 Conceptual Definition and Components of Innovative Ability

Innovative ability is not an isolated concept in journalism school education, it is a comprehensive ability that is interwoven by multiple constituent elements shown in Table 1. Knowledge accumulation is the cornerstone of innovation, and interdisciplinary integrated education enables students to draw on the wisdom of multiple fields and form a diversified knowledge structure. Critical thinking is the engine of innovation, encouraging students to be unconventional, to dare to question, and to inquire deeply. Problem identification, on the other hand, stems from interdisciplinary perspectives and helps students identify unique problems and seek innovative answers in complex media environments.

Collaboration and adaptability are especially important in the context of media convergence. In interdisciplinary teams, journalism students can collaborate with students from different professional backgrounds and collide with new sparks of ideas. Meanwhile, the ability to quickly
adapt to new technologies and platforms enables them to remain competitive in the media industry. Finally, the spirit of innovation is the source of motivation that drives students to keep exploring and experimenting, which encourages them to dare to challenge the routine and to learn and grow in practice.

To summarize, interdisciplinary integration not only enriches the knowledge system of journalism school students, but also cultivates their innovative thinking and practical ability, which is crucial for cultivating innovative journalism talents who can adapt to media changes and lead future trends. This viewpoint is put forward to emphasize the core position of interdisciplinary education in enhancing innovation ability, not simply superimposing disciplinary knowledge, but stimulating students' innovation potential through in-depth integration and injecting new vitality into journalism education.

Table 1: Components of Innovative Capability

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Knowledge Building</td>
<td>Knowledge based on a wide range of subjects provides the basis for innovative thinking. Interdisciplinary learning broadens perspectives and stimulates new ways of thinking.</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>They are able to analyze problems independently, challenge preconceptions, and interpret information in depth.</td>
</tr>
<tr>
<td>Problem identification</td>
<td>They can identify problems from different disciplinary perspectives, understand the nature of problems, and propose novel solutions to them.</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Collaborate across disciplines in a diverse team, integrating expertise from different fields to innovate together.</td>
</tr>
<tr>
<td>Adaptability</td>
<td>Adapt quickly to new environments, respond flexibly to change, and apply knowledge from different disciplines to new situations</td>
</tr>
<tr>
<td>Creative spirit</td>
<td>Actively explore and experiment, not afraid of failure, and continue to seek breakthroughs.</td>
</tr>
</tbody>
</table>

3.3 Relationship Model of Interdisciplinary Integration and the Enhancement of Students' Creative Ability

In constructing the relationship model between interdisciplinary integration and the improvement of students' innovation ability, this paper firstly recognizes that journalism is no longer limited to the traditional field of information dissemination, but is intertwined and blended with many disciplines such as science and technology, social sciences, arts and so on. This integration not only broadens students' knowledge horizons, but also provides them with a broad soil for innovative thinking.

Innovation stems from in-depth understanding and cross-application of different knowledge fields, M1 indicates the degree of intersection between disciplines, and M2 indicates the degree of students' mastery of multidisciplinary knowledge. The theoretical model can be expressed as:

\[ I = f (M1, M2) \]

where I represents students' innovation ability and f is a nonlinear function reflecting the positive influence of interdisciplinary integration on students' innovation ability. When the boundaries of disciplines are blurred and students are able to flexibly utilize knowledge from different fields, their
innovation ability will be significantly enhanced. Taking media convergence as an example, journalism students not only need to master the basic skills of news writing, but also need to understand technical knowledge such as data science, programming languages, and visual design. The growth of M1, such as offering interdisciplinary courses and encouraging interdisciplinary collaborative projects, can push students to step out of the traditional frameworks and try out new ways of expression. Meanwhile, M2 enhancements, such as strengthening technical training and improving students' multifaceted knowledge literacy, will directly contribute to I enhancement.

However, it is worth noting that excessive interdisciplinary integration may lead to insufficient depth of students' expertise in a particular field, thus affecting their ability to innovate in a specific area (In). Therefore, it is crucial to balance breadth and depth:

\[ I_n = g(D, W) \]

where D represents the depth of specialized knowledge, W represents the breadth of interdisciplinary knowledge, and g is likewise a nonlinear function revealing the dynamic equilibrium between depth and breadth. Ideal educational strategies should ensure the depth of basic knowledge while moderately expanding the width of knowledge to stimulate students' comprehensive innovation ability.

Through the above model, it can be clearly seen that interdisciplinary integration is not only an inevitable trend in journalism education, but also the key to enhance students' innovation ability. In practice, this paper needs to carefully design the curriculum system and encourage interdisciplinary cooperation in order to cultivate innovative journalism talents who can adapt to the new era of media.

4 Empirical Analysis

4.1 Research design and data collection

The stage is particularly important when exploring the topic of how interdisciplinary integration enhances the innovation ability of journalism school students. In order to deeply understand the impact of the interweaving of different disciplines on journalism's innovative thinking, this paper needs to construct a comprehensive research framework, which aims to reveal how multiple knowledge structures shape students' innovative ability and problem-solving strategies.

First, the research design should encompass multifaceted data sources including, but not limited to, classroom observations, learning outcomes analyses, student program assessments, and in-depth interviews. Classroom observations can reveal how students interact and integrate knowledge in an interdisciplinary setting, while learning outcomes analysis can quantify the effect of such integration on students' actual skill enhancement. By analyzing students' projects in the integration course, this paper can directly assess their progress in creative thinking and problem solving. In addition, in-depth interviews provide valuable first-hand information for understanding students' intrinsic cognitive changes, revealing how they make connections across disciplines and apply them to journalism practice.

The data collection process needed to ensure diversity and representativeness by selecting a sample of students from different grades, backgrounds and interests to ensure the generalizability of the results. In addition, a mixed-methods study that combines quantitative and qualitative data helps provide a more three-dimensional perspective. Quantitative methods, such as questionnaires, can
systematically measure the change in students' creativity before and after an interdisciplinary program; while qualitative methods, such as case studies and content analysis, can reveal the reasons and processes behind such changes.

Next, this paper can construct the following table to show the key elements of research design.

<table>
<thead>
<tr>
<th>Element</th>
<th>Describe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Selection</td>
<td>Diversity, including grade level, background, and interests</td>
</tr>
<tr>
<td>Data Sources</td>
<td>Classroom observations, learning outcomes, program assessments, in-depth interviews</td>
</tr>
<tr>
<td>Research Methodology</td>
<td>Quantitative (questionnaires) and qualitative (case studies, content analysis)</td>
</tr>
<tr>
<td>Focus of Analysis</td>
<td>Creative change, knowledge integration, problem solving strategies</td>
</tr>
</tbody>
</table>

Through such a research design, this paper can not only quantify the impact of interdisciplinary integration on journalism innovation, but also explore the dynamic mechanism of this process in depth, so as to provide strong empirical support for journalism education reform.

4.2 Analysis of the Impact of Interdisciplinary Curriculum

Interdisciplinary education is no longer just a blurring of disciplinary boundaries, but a catalyst for innovative thinking, which encourages students to step out of the traditional knowledge framework and integrate knowledge from different fields, thus stimulating potential innovation.

First, as stated in the literature [3], journalism education in the era of media convergence needs to cope with the challenges posed by the Internet, which requires journalism schools to introduce more diversified courses, such as data science, programming, design thinking, etc., in order to cultivate composite talents adapting to the changes in the media environment. This integration not only strengthens students' professional skills, but also broadens their horizons, enabling them to integrate technological elements in news reporting and innovate information delivery.

Secondly, the literature [2] emphasizes the importance of interdisciplinary curriculum in sports journalism, and it points out that by integrating journalism and communication and sports humanities and sociology, it is possible to build a knowledge system that is both theoretically solid and practically strong. This idea also applies to other areas of journalism, where interdisciplinary programs can help students understand the multifaceted contexts of news events and improve the depth and breadth of their reporting.

Finally, literature [1] mentions that journalism teaching in colleges and universities should keep pace with the times and improve the quality of the faculty while raising the standard of students' skills. Interdisciplinary curriculum is an effective way to realize this goal, which promotes teachers to update their teaching concepts, while stimulating students' initiative of self-learning and exploration, and promoting their innovation in practice.

In summary, interdisciplinary curriculum not only enriches the connotation of journalism, but also provides students with a broad space for innovation, which is the key to cultivating future leaders in the journalism industry. By building a dynamic and open curriculum system, journalism schools can better cope with the changes in the media environment and cultivate journalistic talents with innovative spirit and practical ability.
4.3 Effectiveness Assessment of Practical Teaching Activities

When discussing the topic of how interdisciplinary integration can improve the innovation ability of journalism students, the evaluation of the effect of practical teaching activities is of vital importance. Practical teaching is not purely technical training, but aims to stimulate students' innovative thinking and critical thinking. It not only requires students to master a diversified knowledge structure, but also to be able to apply it flexibly in practice to form unique insights and problem-solving ability.

First of all, practical teaching activities should build an open learning environment that encourages students to cross traditional disciplinary boundaries and explore the intersection of journalism and other fields. For example, combining data science, programming techniques and journalism enables students to process and interpret complex data to generate in-depth reports. Such interdisciplinary practical projects help break the mindset and cultivate students' sense of innovation.

Secondly, practical teaching activities should focus on the process rather than the result. By simulating the real journalistic workflow, students can learn in practice how to innovate under pressure, how to work as a team, and how to adapt and cope with the fast-changing media environment. Such an experience not only hones their professional skills, but also enhances their creativity and adaptability.

Further, a regular feedback and evaluation mechanism is a guarantee of the effectiveness of practical teaching activities. Evaluation by teachers and peers can help students understand their own strengths and weaknesses in innovative thinking and skills, so that they can make targeted improvements. At the same time, the introduction of industry experts' evaluation can provide feedback closer to the actual work, so that students' works and innovative ideas have more market value and social influence.

Finally, the criteria for measuring the effectiveness of practical teaching should not be limited to academic achievements, but should include students' innovative output, teamwork ability and sensitivity to social issues. By setting up activities such as innovative project competition and internship results demonstration, we can visually display the innovative results achieved by students in interdisciplinary integration, and further motivate them to continue exploring and innovating in the field of journalism.

In summary, practical teaching activities in the context of interdisciplinary integration, by creating an open learning atmosphere, emphasizing process learning, implementing an effective feedback mechanism and diversified evaluation standards, can significantly enhance the innovation ability of journalism students and lay a solid foundation for their future success in the media industry.

4.4 Exploring the role of school-enterprise cooperation model

In the innovative reform of journalism education, the school-enterprise cooperation model plays a crucial role, which not only strengthens the combination of theory and practice, but also promotes the integration of interdisciplinary knowledge, thus enhancing the innovative ability of students. School-enterprise cooperation can break down the barriers of traditional education and allow students to learn and grow in a real working environment, which is a vivid interpretation of the concept of “learning by doing”.

Specifically, enterprises provide students with opportunities to get in touch with cutting-edge
media technology and practices, such as media convergence, data analysis, content innovation, etc., which are difficult to be fully covered by classroom theory. For example, in cooperative projects with new media companies, students are able to learn how to combine programming, data science and journalism to create interactive news reports, an interdisciplinary skill that is highly valued in the current media industry. In addition, the professional guidance of enterprise mentors can help students keep abreast of the industry dynamics and enhance their professionalism.

Meanwhile, practical teaching under the school-enterprise cooperation model encourages the cultivation of innovative thinking. In the process of solving practical problems, students need to synthesize the knowledge of different disciplines, and this kind of interdisciplinary problem solving can stimulate their innovative potential. In this way, students in the School of Journalism not only master diverse skills, but also learn how to find new solutions in a complex information environment, thus improving their innovative ability.

In order to quantitatively assess the impact of school-enterprise cooperation on students' innovation ability, the following table can be designed.

Table 3: The impact of school-enterprise cooperation on the improvement of students' innovation ability

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Before Cooperation</th>
<th>After cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interdisciplinary skill acquisition</td>
<td>$x_1$</td>
<td>$x_1 + \Delta x_1$</td>
</tr>
<tr>
<td>Innovative Program Participation</td>
<td>$y_1$</td>
<td>$y_1 + \Delta y_1$</td>
</tr>
<tr>
<td>Number of innovations</td>
<td>$z_1$</td>
<td>$z_1 + \Delta z_1$</td>
</tr>
</tbody>
</table>

Where $\Delta x_1$, $\Delta y_1$ and $\Delta z_1$ represent the improvement of students' interdisciplinary skills, participation in innovation projects and the number of innovation achievements after the cooperation, respectively. By comparing the changes before and after the cooperation, this paper can visualize the positive impact of school-enterprise cooperation on students' innovation ability.

In summary, the school-enterprise cooperation model has strongly promoted the cultivation of journalism school students' innovation ability by providing a practice platform, promoting interdisciplinary integration and stimulating innovative thinking, which is crucial for coping with the rapid changes in the media industry.

5 Application Case Analysis

5.1 Practice and Innovation of Data Journalism

Data journalism, as an emerging field that integrates journalism, statistics, and computer science, provides a new perspective and tools for traditional journalism, thus promoting the depth and breadth of news coverage.
In this era of information explosion, data has become an integral part of news reporting. By introducing data mining, analytics and visualization techniques into journalism courses, students are not only able to master basic newsgathering skills, but also learn how to process and interpret large amounts of data in order to reveal hidden stories. This interdisciplinary teaching model encourages students to think outside the conventional framework and utilize quantitative methods to explore and explain complex real-world issues, thus enhancing their creative and critical thinking.

For example, a successful data journalism project may involve collecting and cleansing a large amount of socio-economic data, then applying a statistical model \( y = \beta_0 + \beta_1x_1 + \varepsilon \) to identify trends and patterns, and finally presenting the results to the public through interactive visualization tools. This process not only honed students' data analysis skills, but also developed their narrative skills, enabling them to tell the stories behind the data in an engaging way.

It is worth noting that this kind of integrated education does not mean weakening the core values of traditional journalism, but rather emphasizes expanding the boundaries of students' knowledge while preserving journalistic ethics and professionalism. As such, a diverse faculty is crucial, and needs to include professionals who are both journalism and technology savvy in order to guide students in integrating knowledge from different disciplines in their practice.

In short, the practice and innovation of data journalism is a vivid embodiment of interdisciplinary integration in journalism education, which promotes the updating of teaching content, promotes the enhancement of students' innovation ability, and delivers new talents with multidisciplinary literacy to the journalism industry.

5.2 Application of Artificial Intelligence in Journalism Ethics

In the context of interdisciplinary integration of journalism education, the application of Artificial Intelligence (AI) technology provides a new perspective for the teaching of journalism ethics. AI is not only a technological innovation, but also a catalyst for the ethical challenges of the journalism industry, which requires this paper to strengthen the understanding of ethical issues and coping strategies in education. This paper will explore how AI plays a role in journalism ethics as a way to stimulate students' innovative thinking.

First, the widespread use of AI in newsgathering and distribution has sparked ethical discussions about data privacy and information authenticity. Journalism students should understand that while AI algorithms can efficiently process large amounts of information, they can also lead to the amplification of bias or invasion of privacy. Through case studies, this paper can shed light on these potential issues and allow students to think about how to set moral boundaries and develop ethical guidelines in practice.

Second, AI-driven automated news generation may blur the boundaries of responsibility between journalists and machines. In the classroom, this paper can simulate situations in which students can think about who should be responsible for correcting and apologizing when AI-generated news is wrong. Such a discussion would help develop their deep understanding of journalistic responsibility and transparency.

Further, the black-box nature of AI's decision-making poses new challenges to journalism ethics. Journalism education should emphasize the importance of interpretability and transparency, and encourage students to explore how ethical frameworks can be embedded in AI systems. By designing experimental projects, they can build ethically conscious AI models with their own hands, thus enhancing their ability to advocate ethical responsibility in technological development.

Finally, the rapid development of AI prompts the need for continuous updating of journalism
ethics education. Teachers should guide students to focus on the latest advances in AI and relate them to ethical principles, fostering their forward-thinking and creative abilities. Through regular seminars and workshops, students can interact with industry experts to discuss cutting-edge issues in AI ethics.

In summary, integrating AI into the teaching of journalism ethics can not only reveal the ethical dilemmas brought about by technological advances, but also stimulate students' potential for innovation in solving these problems, and cultivate leaders with comprehensive ethical literacy for the future journalism industry.

5.3 Case Studies of Interdisciplinary Programs

In the field of journalism education, interdisciplinary integration is regarded as a key strategy to stimulate students' creativity. Focusing on a case study of an interdisciplinary program aims to reveal how such integration can produce more innovative thinking journalism professionals in practice. First, this paper can observe that in the context of media convergence, journalism is no longer limited to traditional news writing and editing, but has expanded into a variety of fields such as data science, programming, and visual design. For example, a journalism school may initiate a project in which students work in teams to use data analytics tools (X) to dig out the deeper stories behind social phenomena, while combining programming techniques (Y) to construct interactive news reports, complemented by design thinking (Z) to enhance the visual representation of information. Such interdisciplinary projects not only require students to master a single skill, but also encourage them to cross professional boundaries and synthesize a variety of knowledge, thus enhancing their innovation ability in practice.

In the course of the project, students moved between different disciplines, learning how to combine statistical analysis with news narratives, writing code to realize dynamic information presentation, and understanding how design aesthetics can enhance the effect of information delivery. These experiences not only broadened students' intellectual horizons, but also honed their ability to find innovative solutions to complex problems. In addition, the teamwork model reinforces the spirit of collaboration and allows students to be inspired to innovate in a diverse collision of minds.

Notably, the role of teachers shifted to that of guides and coordinators in this process, encouraging students to explore independently and providing interdisciplinary guidance rather than transferring knowledge in the traditional sense. This shift in roles promotes teaching and learning and further stimulates an atmosphere of academic innovation.

In conclusion, the case study of the interdisciplinary program demonstrates that by integrating resources from different disciplines, journalism schools are able to build a dynamic learning environment that stimulates students' creative potential and delivers new journalism talents with comprehensive skills and innovative thinking to the media industry. This empirical analysis strongly argues for the important role of interdisciplinary integration in enhancing innovative journalism education.

6 Conclusion and Recommendations

6.1 Summary of the main findings of the study

Under the perspective of interdisciplinary fusion, the enhancement of journalism students'
innovation ability is a topic that needs to be dug deeper. The main findings of the study reveal that the evolution of the educational environment, especially the wave of media convergence, presents new challenges and opportunities for journalism education. First, this paper observes that traditional journalism curricula are overly specialized and tend to neglect cross-interaction with other fields, which limits the overall development of students (as described in Literature 3, the professional curricula of Chinese colleges and universities tend to be in-depth in a single discipline, while the United States pays more attention to a wide range of interdisciplinary studies).

Secondly, journalism in the new era requires not only solid journalistic expertise, but also in-depth understanding of multiple fields such as science and technology and social sciences in order to mine valuable content in the ocean of information (as mentioned in Literature 1, in the face of the ever-changing media environment, journalism education should cultivate composite talents). Furthermore, the importance of practical courses should not be ignored, which can help students transform theoretical knowledge into practical operation ability (Literature 3 points out that the practical aspects of Chinese colleges and universities need to be broadened, while American colleges and universities have a wider range of internship platforms).

In addition, the integration of moral education and journalism education has been shown to be effective in enhancing students' critical thinking and social responsibility (literature 4 suggests that the integration of ideological and political classes with moral education can enhance the effectiveness of moral education). Therefore, journalism schools should draw on these findings to adjust their curriculum structure, introduce more interdisciplinary elements, strengthen practical teaching, and integrate moral education into daily teaching as a way to stimulate students' creative potential.

In summary, interdisciplinary integration is not only the trend of journalism education reform, but also the key to cultivate journalism talents with innovative spirit and comprehensive ability. Educators need to be innovative and adjust their teaching strategies to adapt to the rapidly changing media environment, so as to ensure that journalism students can play a key role in their future careers.

6.2 Suggestions for Educational Reform of Journalism Schools

In the discussion of educational reform in journalism schools, this paper must recognize the importance of interdisciplinary integration in enhancing students' creative abilities. This viewpoint is based on the diversity and complexity of today's media environment, which requires journalism talents to be not only proficient in the basic principles of journalism, but also have a broad knowledge horizon and flexible thinking ability. As pointed out by Wang Wenwen and others, college education should keep pace with the times and cultivate composite talents to meet the needs of the new era.

Interdisciplinary integration education can break the boundaries of traditional disciplines and stimulate students' innovative thinking. For example, integrating elements of information technology, data analysis, and social sciences into journalism courses can help students understand the changes in media technology and master data-driven journalism skills, while enhancing their insight into social phenomena. Rather than weakening professionalism, this model of integrated education strengthens the practical and comprehensive nature of journalism. As Yip Yuen-sang reveals in his comparison of the curriculum of sports journalism programs in China and the United States, interdisciplinary courses can build a more comprehensive body of knowledge.

In order to achieve this goal, suggestions for educational reform include: first, updating the
curriculum and introducing more interdisciplinary course modules to encourage students to explore and learn in different fields; second, upgrading the comprehensive quality of the teaching staff, who should have a multidisciplinary background in order to guide students to deeper learning in cross-disciplinary subjects; and third, establishing a practice platform in close cooperation with the industry, so as to allow students to apply in real-life environments the interdisciplinary knowledge to enhance their innovation ability.

In addition, drawing on Zhao Wenxin's research, this paper needs to focus on educational funding to ensure that there are sufficient resources to support the construction and maintenance of converged media labs and to carry out innovative projects. At the same time, the evaluation mechanism should be reformed to focus on the assessment of students' comprehensive ability and innovative achievements, rather than being limited to the mastery of traditional knowledge.

In summary, interdisciplinary convergence education is the key to the innovation of journalism schools, which can cultivate journalism talents who are adapted to the era of media convergence and have the spirit of innovation. Educational reform should be centered on this core concept and adjust teaching strategies and resource allocation in an all-round way, with a view to cultivating more competitive professionals in the future media field.

6.3 Implications for the development of the news industry

In the midst of the rapid changes in the journalism industry, interdisciplinary integration has proved to be a key element in stimulating students' innovative ability. This concept not only requires journalism teaching to keep abreast of the times, but also emphasizes the nurturing of innovative thinking in a diversified knowledge structure. Standing in this perspective, this paper can draw the following conclusions:

First of all, journalism should not be confined to the traditional framework, but should actively embrace the nutrients of other disciplines, such as technology, social sciences, arts and so on, in order to broaden students' horizons. This interdisciplinary integration helps to cultivate journalism practitioners with comprehensive abilities who are able to adapt to the multifaceted tasks in the integrated media environment, such as data analysis, visual design, and new media operation.

Secondly, innovative practical teaching is a direct way to enhance students' innovative ability. As mentioned earlier, universities should establish a mechanism of close cooperation with the industry and provide a rich practical platform for students to exercise and apply interdisciplinary knowledge in real projects, so as to closely integrate theory and practice (I=P+A, where I stands for innovation, P stands for practice, and A stands for application).

Furthermore, the diversity and specialization of the teaching team is an important guarantee to promote interdisciplinary integration. Teachers not only need to have a deep journalism background, but also have expertise in other fields, in order to guide students to cross disciplinary boundaries, in-depth thinking and innovative exploration (T=N+D, where T stands for teachers, N stands for journalism expertise, and D stands for diversified background).

Finally, journalism education should pay attention to the changing needs of society and make timely adjustments to the curriculum to ensure that what students learn is in sync with the development of the industry. This not only means increasing the number of courses related to new technologies and trends, but also includes the reconstruction of traditional courses to make them more inclusive and forward-looking.

In summary, interdisciplinary integration is not only an innovative strategy for journalism education, but also a powerful engine for the development of the journalism industry. It encourages
students to step out of their comfort zones and respond to challenges with multi-perspective and all-encompassing thinking, injecting a continuous innovative momentum into the future of journalism.

References