UDC 378:070.42 (477) DOI: https://doi.org/10.24919/2308-4634.2024.300086

> Zhu Fangzhou, Postgraduate Student of the Pedagogy and Innovative Education Department, Institute of Law, Psychology and Innovative Education, Lviv Polytechnic National University Oksana Isayeva, Doctor of Sciences (Pedagogy), Professor of the Pedagogy and Innovative Education Department, Institute of Law, Psychology and Innovative Education, Lviv Polytechnic National University, Professor of the Latin and Foreign Languages Department, Lviv Danylo Halytskiy National Medical University

COMPETENCY FRAMEWORK OF BACHELORS IN THE FIELD OF NEWS AND COMMUNICATION FROM THE PERSPECTIVE OF ARTIFICIAL INTELLIGENCE

The article deals with the issue of technology application in special education and the development of artificial intelligence technology or its presentation in journalism education. With the rapid iterative development of artificial intelligence (AI) technology, nations worldwide are elevating it to a national strategy, guiding industrial development, technological iteration, and talent cultivation. This problem especially concerns future journalists.

Relevance of the article involves a holistic study of the significance of media production models in the era of artificial intelligence. This study aims to explore a competency framework for undergraduate talents in the field of news and communication from the perspective of artificial intelligence, addressing questions related to the changing landscape of media technologies and their impact on talent development. Through this research, an attempt will be made to devise a talent competency framework that aligns with global industry development trends, contributing to talent cultivation that meets the needs of both the nation and enterprises.

The emergence of intelligent technologies as writing robots poses new requirements for journalists in the field of news and communication. Higher education institutions face challenges in developing news and communication talents. Whether it's the emergence of new communication platforms or the transformation of communication models, future journalists are required to make adjustments and adapt in terms of their abilities and thinking.

Correspondingly, reforms and innovations in journalism education are needed. Against this backdrop, the reform and development of journalism education in China require continuous attention and exploration. From the perspective of artificial intelligence, the dynamic convergence of media technologies has been a frontier topic in the field of journalism and communication studies, opening up new avenues for journalism education.

Keywords: future journalists; journalism and communication talent cultivation; media production; competency framework; artificial intelligence.

Fig. 1. Tabl. 3. Ref. 15.

 Чжу Фанчжоу, аспірантка кафедри педагогіки та інноваційної освіти Інститут права, психології та інноваційної освіти Національного університету "Львівська політехніка"
Оксана Ісаєва, доктор педагогічних наук, професор кафедри педагогіки та інноваційної освіти Інститут права, психології та інноваційної освіти Інститут права, психології та інноваційної освіти Національного університету "Львівська політехніка", професор кафедри латинської та іноземних мов Львівського національного медичного університету імені Данила Галицького

РАМКА КОМПЕТЕНТНОСТЕЙ БАКАЛАВРІВ У СФЕРІ НОВИН ТА КОМУНІКАЦІЇ З ПОЗИЦІЇ ШТУЧНОГО ІНТЕЛЕКТУ

Стаття присвячена питанню застосування технологій у професійній освіті та розвитку технології штучного інтелекту або його використання в журналістській освіті. Зі стрімким ітеративним розвитком итучного інтелекту (ШІ) технологічну ітерацію та розвиток талантів по всьому світу відносять до національної стратегії, спрямовуючи промисловий розвиток. Особливо ця проблема стосується майбутніх журналістів.

Актуальність статті передбачає цілісне дослідження значущості моделей медіапродукції в епоху штучного інтелекту.

Це дослідження має на меті вивчити рамку компетентностей для студентів у галузі новин і комунікацій з точки зору штучного інтелекту, розглядаючи питання, пов'язані з різкими змінами у галузі медіа-технологій та їх впливом на розвиток майбутніх талантів студентів. За допомогою цього дослідження буде зроблено спробу розробити рамку

© Z. Fangzhou, O. Isayeva, 2024

компетентностей майбутніх журналістів, яка відповідає глобальним тенденціям розвитку промисловості, сприяючи розвитку талантів, що відповідає потребам як нації, так і підприємств.

Поява інтелектуальних технологій як роботів-письменників висуває нові вимоги до журналістів у сфері новин і комунікацій. Тому перед закладами вищої освіти постають виклики в розвитку студентських талантів у галузі новин і комунікації. Майбутні журналісти повинні вносити корективи й адаптуватися відповідно до власних здібностей та мислення, незважаючи на появу нових комунікаційних платформ чи трансформації комунікаційних моделей.

Отож, реформи та інновації в журналістській освіті є важливими й актуальними. На цьому тлі реформа і розвиток журналістської освіти в Китаї потребують постійної уваги та досліджень. З точки зору штучного інтелекту, динамічна конвергенція медіатехнологій є нагальною темою в галузі журналістики та комунікаційних досліджень, відкриваючи нові шляхи для журналістської освіти.

Ключові слова: майбутні журналісти; виховання талантів у сфері журналістики та комунікації; медіапродукція; рамка компетентностей; штучний інтелект.

ntroduction. In 1987 American scholar Robert K. Yin published the first paper on artificial intelligence and education focusing on the application of technology in special education [13]. Since then, foreign scholars have mainly focused on the research and development of artificial intelligence technology or its application in education, such as the use of natural language processing and dialogue modeling technology to generate intelligent essay scoring systems [1], applicable to automated essay scoring in higher education and assisting students in learning.

From 2017 to 2023, artificial intelligence (AI) has been mentioned in the annual reports of the State Council of China for three consecutive years. With the development and application of information technology and the internet, various new media platforms such as social media have emerged, leading to significant changes in the ways information is produced and disseminated. The information dissemination landscape has undergone a major transformation, presenting a new face to the media ecology. In this context, the rapidly changing media industry naturally imposes new requirements on the talent cultivation in journalism education at universities [12]. Whether in terms of news production methods, dissemination means, or development models, the thinking and abilities of journalists need continuous development and adjustment to dynamically adapt to the development of the times.

This article focuses on analyzing the paradigm shift in traditional news business under AI technology and its impact on the reconstruction of news production models. Additionally, it explores the shift in the professional value of journalists and the future trends of humanmachine collaboration in this context.

Review of publications. In 2013, research on media production models in the era of artificial intelligence (AI) began to emerge overseas. In recent years, national scholars have also conducted in-depth studies on this topic in the context of China's situation. Scholars as Yu Guoming have focused their research on media changes, the advantages and limitations of VR news, robot writing, and knowledge payment [14]. Similarly, Luan Yimei and others have begun studying the impact of AI on journalism and communication education, particularly analyzing the changes and strategies in courses such as journalism theory, history, and practice after integrating AI elements [7]. Lei Yuejie has analyzed the strategies for the development of journalism education under the backdrop of AI, emphasizing the importance of participatory journalism in teaching and research [6]. Pan Xiaoting proposed breaking down disciplinary barriers, cultivating learners' perspectives in humanities and social sciences, introducing courses in computer technology and smart media technology, and strengthening the recruitment and training of smart media-oriented faculty [8]. While academia is delving deeper into the application of AI technology in journalism and communication education, the focus remains primarily on conceptual updates and strategies to address apparent issues. Further exploration is needed on how AI technology can be integrated into journalism classrooms and the reform and construction of talent training systems for AI-driven journalism and communication majors.

Research Method

1. Literature Review Methodology

This study employs a literature review methodology, categorizing sources into two main types: the first type includes publicly available monographs, journal articles, and theses from both domestic and international sources. The second type encompasses industry or companypublished reports related to the topic. A comprehensive and systematic analysis of these two types of literature sources allows for a thorough understanding of the development of news communication in the context of artificial intelligence in China. This, in turn, provides guidance for practical aspects of talent development.

2. Grounded Theory Methodology

Grounded Theory is a research method jointly developed by scholars Glaser and Strauss at Columbia University. It is based on careful observation of everyday real-life situations and the understanding of events by those being observed. While Grounded Theory may not be entirely objective, it holds significant importance for understanding human behavior and forming new theories [4]. Since its inception, it has gained attention due to its relatively scientific operational procedures and methodological emphasis on practicality [11]. In this study, focusing on the case of talent development practices in higher education institutions, literature and interview materials are used as grounded materials. The Grounded

Theory methodology is employed to identify the constituent elements of the competency framework for undergraduate talents in the field of news communication.

1. Research Design

1.1. Research Methodology

The development of artificial intelligence (AI) technology is reshaping the landscape of news and media. By analyzing and summarizing recruitment information released by various types of media organizations and companies, the new requirements for talents in the field of journalism and communication are clarified. Universities serve as the cradle for talent cultivation, and the significance of education lies in nurturing students into professionals in relevant fields, maximizing their value when integrated into society. Therefore, the research adopts the Grounded Theory research method to explore specific cases, aiming to answer the core research question, "What is the competence framework for undergraduate talents in the field of journalism and communication?"

1.2. Case Selection

The principles for case selection are as follows: 1. Typicality of case samples. Typicality requires that the selected case samples have comprehensiveness and representativeness while also reflecting the individuality and uniqueness of each case [2]. The chosen cases should comprehensively reflect the knowledge structure of undergraduate talents in the field of journalism and communication, highlighting their respective emphases and characteristics. 2. Case samples with a good reputation, indicating that the talents cultivated in the field of journalism and communication from these cases are widely recognized in terms of certification, mobility, and other aspects. This study selects the journalism schools of key universities in China: Huazhong University of Science and Technology, Fudan University, and Renmin University of China.

1.3. Data Collection

The data analyzed using the grounded theory method can come from primary sources such as interview materials, as well as secondary sources like literature reports, policy documents, and website reports [15]. For the three target cases in this study, public information was searched online. Simultaneously, relevant personnel from domestic cases were surveyed and interviewed. The collected and organized textual data for the three cases serve as grounded materials to reflect the framework of competencies. Publicly available information on the internet includes literature related to the research topic, official website introductions, and training programs.

Case	Interviewee	Othe Materials	Notes
School of Journalism and Communication,		1 official website introduction, 1	Grounded case
Huazhong University of Science and Tech-		training program, 5 CNKI database	
nology		papers	
School of Journalism, Fudan University	Dean Yin	1 official website introduction, 1	Grounded case
	Minghua	training program, 4 CNKI database	
		papers	
School of Journalism, Renmin University of		1 official website introduction, 1	Grounded case
China		training program, 5 CNKI database	
		papers	

2. Case Overview

A major is a discipline category divided based on social division of labor, economic and social development needs, as well as the development and classification of disciplines. Courses are the core elements of talent cultivation and the most direct variables influencing student development. In this paper, we use the results of knowledge module division to analyze the professional connotation construction of course content.

2.1. School of Journalism and Communication, Huazhong University of Science and Technology [5].

The School of Journalism and Communication at Huazhong University of Science and Technology is a new type of college based on humanities and social sciences, incorporating the cross-disciplinary fields of humanities and social sciences, computer information technology, and artificial intelligence. The school adheres to the principle of "strengthening the intersection of humanities and technology, and winning with compound characteristics". It takes a new approach to education, emphasizing the combination of journalism and communication studies with the integration of communication culture and communication technology. The school advocates for students to develop comprehensively in a unique atmosphere that integrates disciplines such as literature, science, engineering, and art. The goal is to cultivate high-quality, fully multimedia and compound talents in journalism and communication who not only have a solid foundation in humanities and social sciences but also can master modern communication tools.

(1) Program Objective

This is a program that aims to teach students to be professional talents in journalism who can adapt themselves to the age of media convergence. Students are prepared for various sections of news production across multiple media platforms, including news reporting, writing, editing, commentary, photography, and media business management. They will also be competent for the jobs in the departments of publicity, project planning, product development or work as secretaries in the party and governmental enterprises and companies. For those who have interest in academic, the program also provides them with a firm grounding for further education, which will lead them to research and educational work related to news communication.

The program requires students to learn about Marxist views of journalism, systematically master theories in news communication, and get familiar with the characteristics of different media. They are expected to demonstrate the ability to practice multimedia techniques and gain an understanding of principles and methods of media business and management. The knowledge system they aquire must be deep in foundation, wide in scope, strong both practically and theoretically.

Huazhong University of Science and Technology outlines the competency requirements for undergraduate talent development across three dimensions: knowledge, skills, and attitude. In the knowledge dimension, students are expected to study Marxist news views, systematically grasp the theories of journalism and communication, and have a comprehensive knowledge structure, including a familiarity with the communication characteristics of various media. In the skills dimension, students should be capable of applying integrated media communication technologies to disseminate news. They are encouraged to establish the characteristics of integrated media reporting and understand the principles and methods of managing media. In the attitude dimension, students are expected to develop into advanced journalism and communication professionals with an applied and compound orientation, adapting to the needs of the media convergence era.

(2) Curriculum Plan

The curriculum plan of the School of Journalism and Information Communication at Huazhong University of Science and Technology comprises four main components. The General Education Courses include practical teaching elements and reflect an interdisciplinary knowledge structure, covering topics such as Artificial Intelligence and Science, Introduction to New Media, and Media Convergence Introduction. The professional courses are divided into two parts: the core courses, which form the main part of the journalism major, including News Writing, In-depth Reporting, and News Editing; and the specialized courses, which provide students with additional knowledge, such as Integrated News Reporting, Data Journalism, Machine Learning, and News Recommendation Systems, Broadcasting, Television, and New Media Commentary.

2.2. Fudan University School of Journalism [3].

The School of Journalism at Fudan University, formerly known as the Department of Journalism, was founded in September 1929, making it the oldest institution for journalism and communication education in China. Additionally, the School of Journalism at Fudan University is the first school in China to be jointly established by a ministry and a university. The joint construction of journalism schools by ministries and universities is a policy implemented by the Chinese government, requiring central media, local party propaganda departments, and universities to collaborate in establishing journalism schools. This model bridges the gap between academia and industry, facilitating collaboration by establishing a flexible mechanism for mutual connection. It directly integrates high-quality media resources into the forefront of journalism education and transforms the traditional teaching of practical content in journalism education into a new training model that involves joint cultivation by the ministry, university, and media entities to produce versatile and practical talents.

(1) Program Objective

The journalism and communication programs at Fudan University, including majors in Journalism, Radio and Television, Advertising, and Communication, adhere to the training philosophy of mainstreaming, digitization, and internationalization. The goal is to cultivate well-rounded individuals who possess a broad foundation in humanities, social sciences, and natural sciences. Graduates are expected to have a comprehensive understanding of Marxist journalism theory, analyze news communication phenomena and issues, be familiar with China's news communication policies and regulations, understand media operation mechanisms and development trends, uphold high professional ideals and ethical standards, adapt to the requirements of economic and social development in the era of all-media, and be capable of undertaking roles in modern media organizations, new media enterprises, advertising and public relations companies, government institutions, and social organizations. They are envisioned as versatile, innovative, and applied talents in the field of news communication.

The talent cultivation requirements for undergraduate programs at Fudan University can be categorized into three dimensions: knowledge, skills, and attitudes. In the knowledge dimension, students are expected to have a broad foundation in humanities, social sciences, and natural sciences. They should be familiar with China's news communication policies and regulations, as well as media operation mechanisms and development trends. In the skills dimension, students are required to possess systematic news business capabilities, analyze news communication phenomena and issues using Marxist journalism theory. The attitude dimension emphasizes the development of a lofty professional ideal and a strong sense of professional ethics. Graduates should be capable of undertaking roles as versatile, innovative, and applied talents in the field of news communication.

(2) Curriculum Plan

The training program at Fudan University's School of Journalism includes three main components. General education courses cover interdisciplinary knowledge in

humanities and social sciences, such as modules on humanities history, philosophical wisdom, and critical thinking, as well as ecological environment and life care. The professional education is divided into two parts: one focusing on foundational courses, such as Introduction to Journalism and Introduction to Communication Studies, and the other on core professional courses, including News Interview and Writing, Laws and Ethics of News Communication, and Professional Reporting. The school also offers diversified development courses, allowing students to choose one of five directions like professional advancement or interdisciplinary development. This provides students with diverse options to supplement their knowledge and skills.

2.3. School of journalism and communication Renmin university of China [10].

China Renmin University's School of Journalism was established in 1955, making it the first higher education institution for journalism founded by the Communist Party of China in the newly established People's Republic of China. The discipline of journalism and communication at Renmin University of China was formed in 1958 by consolidating the academic resources of Beijing University, Renmin University of China, and Yanjing University. Over more than sixty years of development, it has become the cradle of journalists in the PRC, a key research center for Marxist journalism, the mainstay of journalism and communication education, a leader in education reform and innovation, and an important platform for global journalism education exchange and cooperation.

In 2007, the school started offering a major in Digital Communication, and in 2013, it officially established the Communication Studies major. In 2016, with a donation of 100 million RMB, it established the Future Communication School, a cross-disciplinary and crosscultural talent training zone, to reconstruct the education system for intelligent communication in journalism.

(1) Program Objective

The School of Journalism at Renmin University of China enrolls students in the major of Journalism and Communication with the aim of cultivating high-end, professional, integrated, and innovative talents in journalism and communication who can adapt to the changes in information dissemination and the demands of social development. While emphasizing a solid foundation, broad perspective, and integration, the discipline further distinguishes four majors with different focuses in undergraduate talent cultivation.

The Journalism major aims to train talents with a compound knowledge structure, comprehensive professional skills, and outstanding development potential in journalism and communication. Graduates are suitable for roles such as reporters and editors in various media organizations or working in propaganda and copywriting in government and enterprise institutions.

The requirements for undergraduate talent cultivation at Renmin University of China can be divided into three dimensions: knowledge, skills, and attitudes. In the knowledge dimension, students are required to systematically learn and master the basic theories of Marxism, adhere to seeking truth from facts and the mass line, apply Marxist theory to analyze and solve problems, and be familiar with the country's major policies. In the skills dimension, students should have profound cultural literacy, proficiency in written and oral professional expression, be skilled in using modern communication technology for journalism and communication activities, and have proficiency in at least one foreign language. In the attitude dimension, students are expected to possess excellent moral qualities, act as role models for the country, and contribute positively to society.

(2) Curriculum Plan

The training program at the School of Journalism at Renmin University of China comprises four parts. General education courses cover general knowledge in humanities and social sciences, such as courses in political theory and public foreign language. The professional education is divided into three parts. The first part includes core courses in the major, such as fundamentals of news practice and strategic communication. The second part consists of core professional courses, including news reporting and writing, news photography, and the application of digital communication technology. The third part offers personalized elective courses, such as algorithmic news, principles and applications of news visualization, and hosting in cross-media reporting. The school also provides innovative research and practice courses, as well as guidance for students' personal development, to offer better career guidance and selfidentity.

3. Research Process

The process of coding the data hierarchically is the most important step in grounded theory. This study adopts the hierarchical coding method of open coding, axial coding, and selective coding.

3.1. Open Coding

Through open coding, relevant conceptual elements related to undergraduate talents in the field of news and communication from the raw data are extracted. These concepts are then categorized and correspond to initial categories. In this research, the textual materials of the three cases were disassembled sentence by sentence. Irrelevant content was removed, and the relevant information was recorded in an Excel spreadsheet, forming 16 initial categories. Due to space constraints, only a partial process of open coding is presented in this section, as shown in the following Table 2.

3.2. Axis Coding

Through axis coding, we delve deeper into the meaning of competency elements and initial categories. We cluster and refine more abstract subcategories, further

COMPETENCY FRAMEWORK OF BACHELORS IN THE FIELD OF NEWS AND COMMUNICATION FROM THE PERSPECTIVE OF ARTIFICIAL INTELLIGENCE

Table 2. Example of Open Coding Partial Process

Typical Quotations	Initial Categories	
Moral and Ideological Qualities: Love the motherland, support the leadership of	Patriotism and Social	
the Communist Party of China, possess a scientific worldview, life outlook, and	Responsibility	
values; Patriotism and a sense of social responsibility.		
Cultural Qualities: Possess a certain level of literary and artistic cultivation,	Humanities and	
modern awareness, and the ability for international perspective, cross-cultural	Social Literacy	
communication, competition, and cooperation; Humanities and social literacy.		
Basic Competencies: Have strong expressive abilities, interpersonal skills, and the	Communication and	
ability to play a role in a team; Communication and teamwork.	Teamwork	

classifying and merging them into main categories that offer a clearer understanding of the competency framework for undergraduate talents in the field of news communication from the perspective of artificial intelligence. The results are shown in the table on the following page (Table 3).

Typical Examples	Initial Categories	Sub-categories	Main Categories
Having national feelings and a sense of respon-	Patriotism and Social	Professionalism	Attitudes
sibility;	Responsibility;		Dimensions
Ethical and safety issues in news communication;	Journalism and		
Be a role model for the country and a pillar of society	Communication Ethics		
	and Professional		
	Conduct;		
	Moral character.		
Use of News Equipment;	Modern Communication	Professional	Skill
Able to serve as a journalist and in publicity roles;	Technology;	Skills	dimension
Demonstrate academic exchange skills showcasing	Oral Expression;		
expertise;	Academic Research.		
English writing and application skills;	Foreign language	Basic Skills	
Innovative thinking, digital thinking;	application;		
Strong team communication and expression skills,	Creativity;		
as well as professional qualities;	Team collaboration.		
History of journalism and communication;	Theories of journalism	Core	Knowledge
Communication policies and regulations in China;	and communication;	Professional	dimension
In-depth reporting, news writing, and news editing;	Marxist view of		
Integrated media technology, artificial intelligence,	journalism;		
and science	Journalistic skills;		
	Media convergence.		
Philosophy, Anthropology;	Humanities and social	General	
Living environment, Computer Science;	sciences;	Education	
	Natural sciences.		

Table 3. Display of Axis Coding Results

This section associates the 16 initial categories obtained from open coding into 5 sub-categories, namely "Professional Attitude", "Professional Skills", "Basic Skills", "Professional Core", and "General Education". The "Professional Attitude" sub-category includes the initial categories of patriotism and social responsibility, ethics and professional integrity in journalism and communication, moral qualities, and cultural literacy. The "Basic Skills" sub-category comprises the initial categories of foreign language application, creativity, and teamwork. The "Professional Skills" sub-category encompasses modern communication technology, oral expression, and academic research skills. The "Professional Core" sub-category includes the initial categories of theories in journalism and communication, Marxist views on journalism, proficiency in journalism, and media integration. The "General Education" sub-category comprises the initial categories of humanities and social sciences and natural sciences.

3.3. Selective Coding

Through selective coding, we aim to identify the core categories of the competence framework for undergraduate talents in the field of journalism and communication, elucidate the storyline between categories, and subsequently distill a conceptual model. The connections between initial categories, sub-categories, and main

categories in this study can be explained as follows: within the components of the competence framework for undergraduate talents in journalism and communication, the "Attitude Dimension", "Skill Dimension", and "Knowledge Dimension" mutually influence each other, collectively contributing to the accomplishment of professional practices.

Firstly, the "Attitude Dimension" provides guidance on value-oriented thinking, offering a more comprehensive and diverse perspective for undergraduate talents in journalism education. It encompasses professional thinking that influences the ways knowledge and skills are applied.

Secondly, the "Knowledge Dimension" forms the theoretical foundation and experiential guidance for undergraduate talents in the field of artificial intelligence engaging in professional practices. It includes general education as the foundational knowledge and provides advanced knowledge for professional depth.

Finally, the "Skill Dimension" serves as a bridge connecting attitude, knowledge, and professional practices. It furnishes the practical operations and methodological skills required for undergraduate talents in journalism to engage in professional practices.

4. Results and Discussion

The rapid development of the digital society has expanded the concept of news communication from simple news and public opinion propaganda to the idea of "panmedia". The news and communication industry urgently needs versatile talents with interdisciplinary backgrounds. Universities need to cultivate news and communication professionals with extensive knowledge and professional expertise through interdisciplinary education. On one hand, the country is promoting the construction of the "New Liberal Arts" to support interdisciplinary training. The "Declaration on the Construction of the New Liberal Arts" proposes to "further break down the barriers between academic disciplines, promote deep communication between liberal arts disciplines, cross-fertilize liberal arts with science, engineering, agriculture, and medicine, integrate modern information technology into liberal arts education, and achieve self-renewal".

Competency-Based Education (CBE) in the 1960s is based on the needs of occupational positions to determine the competencies that students should possess. It uses these competencies as training objectives, transforming students' educational goals into specific skills, knowledge, and qualities. This approach aims to achieve educational objectives by allowing students to learn and master skills in practice, better adapting them to societal needs. In the 1980s, the United States advocated for Outcome-Based Education (OBE), which is a teaching model that centers around students' learning outcomes, breaking down students' stage-specific abilities in reverse. In this model, educational goals are formulated based on actual societal needs and the knowledge and skills students require [9]. Whether CBE or OBE, both emphasize using the occupational competencies required by job groups as the logical starting point for teaching activities.

The comprehensive penetration of artificial intelligence (AI) technology in the field of news communication is a phenomenon that has gained significant attention in recent years. Specific applications of AI in the media industry include machine-generated news writing and algorithmic content distribution. Studies indicate that the future development of the media industry is closely related to the introduction and application of AI technology. AI not only shapes the overall landscape of the media industry but also, at a micro level, reshapes the business chain of the media sector.

Through the study of talent cultivation cases in three top-tier national universities and the coding, organization, summarization of relevant materials, the initial

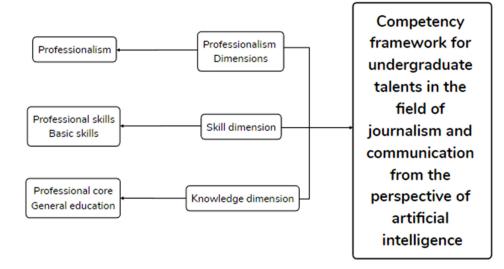


Figure 1. Conceptual Model of Competence Framework for Undergraduate Talents in Journalism

elements of the competence framework for undergraduate talents in the field of artificial intelligence were identified. These elements include the "Attitude Dimension", "Skill Dimension", and "Knowledge Dimension", and a conceptual model of the competence framework for undergraduate talents in journalism was constructed by connecting the storylines during selective coding, as illustrated in Figur 1.

This study reveals that the "Attitude Dimension", "Skill Dimension", and "Knowledge Dimension" are not parallel relationships; instead, they mutually influence each other, collectively contributing to the accomplishment of professional practices.

Conclusion and Implications

The rapid development of artificial intelligence technology has brought certain impacts to the news industry. Under artificial intelligence technology, automated news writing streamlines the news production process, enhancing the efficiency and accuracy of news creation. Personalized news delivery optimizes information distribution mechanisms. This necessitates journalists not only to possess professional abilities in objectively recording events and storytelling but also to have critical thinking skills, data literacy, and operational capabilities.

Certainly, algorithmic recommendation models are not the sole mode; there are also social recommendations and manual recommendations. While algorithms can replace some simple and repetitive mechanical tasks, creative work such as in-depth reporting, news commentary, and long-form narratives is challenging to be replaced by AI. Many phenomena indicate that although artificial intelligence is restructuring the professional roles of journalists, news practitioners still hold their unique value. Journalists can play a role in solving complex problems in human-machine collaboration. They can go beyond objective reporting to incorporate ethical standards, infuse emotions and responsibility – advantages that algorithms cannot achieve.

Therefore, the current undergraduate talent development framework in the field of journalism and communication should not be neglected. It should neither excessively focus on cultivating intelligent communication skills nor overlook the immersion of traditional professional practices and theoretical literacy. Journalism and communication education need to strive to find and cultivate teaching models that better align with technological iterations and current news activities. Some universities have already made practical efforts towards educational transformation. In order to promote the development of undergraduate talents in journalism and communication in the era of artificial intelligence, it is essential to promptly summarize the experiences of transforming intelligent communication education. By integrating their own characteristics and strengths, universities can reasonably adapt the transformation of talent development in journalism and communication under the overarching influence of artificial intelligence, thus enhancing the quality of undergraduate journalism and communication education.

REFERENCES

1. Beseiso, M., Alzubi, A.O. & Rashaideh, H.A. (2021). A Novel Automated Essay Scoring Approach for Reliable Higher Educational Assessments. *Journal of Computing in Higher Education*. No. 3 (3). pp. 1–20. Available at: https:// link.springer.com/article/10.1007/s12528-021-09283-1 [in English].

2. Duan, Z. (2018). On Typicality and Representativeness of Research on Educational Cases. *Journal of Teaching and Management*. No. 16. pp. 1–3. [in English].

3. Fudan University. Fudan University Undergraduate Teaching and Training Program for Journalism and Communication. 2022. Available at: https://jwc.fudan.edu.cn/0a/4f/c253 27a461391/page.htm [in English].

4. Glaser, B.G. & Strauss, A.L. (1967). The discovery of grounded theory: Strategies for qualitative research. New York: Aldine. 115 p. [in English].

5. Huazhong University of Science and Technology. *School of Journalism and Information Communication 2020 Under-graduate Professional Training Plan.* 2020. Available at: https://sjic.hust.edu.cn/info/1231/11696.htm [in English].

6. Lei, Y., Tian, C. (2018). Challenges and Changes: Development Trends in Journalism Research and Education. *News and Writing*. No. 3. pp. 30–33. [in English].

7. Luan, Y. & Zhang, X. (2018). The Reform of Journalism and Communication Education Driven by Artificial Intelligence. *News and Writing*. No. 5. pp. 43–49. [in English].

8. Pan, X. The Future Is Here: What Kind of Journalism and Communication Talents Are Needed in the Smart Media Era. *Chinese Editors Journal.* 2018. No. 09. pp. 45–50. [in English].

9. Qin, X.J. (2022). Research on the Three Platforms, Six Links Practical Teaching Model in Broadcasting and Television Majors in Higher Vocational Colleges. *Educational Theory and Practice*. No. 42 (24). pp. 54–57. [in English].

10. Renmin University of China. Undergraduate training program for 2021 at the School of Journalism. 2021. Available at: http://jcr.ruc.edu.cn/docs/2021-09/f005a773caac4a42a88a8b9 d1a9ff390.pdf [in English].

11. Suddaby, R. (2006). From the editors: What grounded theory is not. *Academy of Management Journal*. No. 49 (4). pp. 633–642. [in English].

12. Yang, Y. & Ma, K. (2021). Exploration of ideological and political construction of Marxist journalism perspective: Based on the perspective of cultivating outstanding journalism talents. *Today's Massmedia*. No. 8. pp. 140–143. [in English].

13. Yin, R.K. & Moore, G.B. (1987). The Use of Advanced Technologies in Special Education: Prospects from Robotics, Artificial Intelligence, and Computer Simulation. *Journal of Learning Disabilities*. No. 1. pp. 60–63. [in English].

14. Yu, G. (2017). The Major Trends in the Future Evolution of Media and VR, Robot Writing, and Knowledge Payment. *Education and Communication Research*. No. 4. pp. 95–96. [in English].

15. Zhang, N. & Cai, G. (2021). Study on the Bidirectional Governance Path of State-owned Capital Investment Operating Companies: Exploratory Analysis Usino Grounded Theory Based on Governance Practices in shanghai & Shenzhen. *Management world*. No. 37 (1). pp. 108–127. [in English].

Стаття надійшла до редакції 16.02.2024