



Online Matching Method of News Communication Innovative Teaching Mode Driven by Artificial Intelligence

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Abstract. In order to improve the quality of training news communication talents, optimize the teaching mode of news communication innovation, combine with artificial intelligence technology, innovate the content of news communication, deeply analyze the types of students' learning characteristics, and match the different students' online learning content and methods according to the teaching content and the training needs of professional talents, so as to improve the teaching effect of news communication innovation, and provide a mixed teaching mode of online and offline news communication that can be discussed or criticized.

Keywords: Artificial intelligence · News communication · Innovative teaching · Online matching

1 Introduction

Artificial intelligence, also known as intelligent machinery and machine intelligence, refers to the intelligence displayed by machines made by human beings. Generally, artificial intelligence refers to the technology of presenting human intelligence through ordinary computer programs. The research of artificial intelligence is highly technical and professional, each branch of the field is in-depth and different, so it involves a wide range [1]. With the extensive application of artificial intelligence, the current teaching mode has been greatly changed. In the teaching process of news communication innovation, it emphasizes the combination of online teaching and offline teaching, so as to realize the complementary advantages and deep dialogue between the two teaching forms, so as to make up for the many shortcomings faced by the single offline teaching [2]. At present, a large number of tools have been applied to artificial intelligence, including search, mathematical optimization, logic deduction and so on. In the news communication innovation teaching mode online is also gradually exploring [3]. For

journalism and communication courses, the emphasis on the importance and urgency of mixed teaching is fundamentally determined by the current overall goal of training journalism and communication personnel [4, 5]. In order to cultivate high quality, all-media, compound, expert and outstanding journalism and communication talents and promote the curriculum construction, the teaching reform of journalism and communication courses has continued to explore new teaching concepts and models, while the massive Internet resources and technical support system in the new media era have pushed the construction of online and offline hybrid courses to the forefront of the teaching reform [6, 7]. Based on this, combined with artificial intelligence - driven theory, the online matching method of news communication innovation teaching mode is studied.

2 News Communication Innovation Teaching Mode Online Matching Content Innovation

In the reform of journalism teaching, teachers' teaching content should match students' learning foundation and learning potential to meet the needs of the new situation [8, 9]. Teaching should focus on the students' nearest development area, provide students with appropriate difficult content, mobilize students' enthusiasm and bring into play their potential, go beyond their nearest development area and reach the level that can be achieved by overcoming their difficulties [10, 11]. The difficulty of teaching content should not be too simple or too abstruse. The depth of teaching content should meet the requirements of the students' nearest development area and match the nearest development area [12, 13]. The teaching content must have certain experience or the elementary knowledge to take the study cushion, also must have certain intelligence development as the foundation. Match the teaching content with the recent development area, pay attention to match the interest of knowledge with students' interest, match the content of knowledge with students' learning motivation, match the value of knowledge with students' needs [14, 15]. Teachers use language, sound, text, symbols, pictures, tables, animation, video and body movements and other information factors to convey knowledge or method information to the students' hearing and vision [16, 17]. Teaching combination surface is the field or interface that teachers and students contact or influence each other in information exchange or teaching function [18]. The information channel of the combination of teaching and learning mainly includes the channel that teachers transfer knowledge or method information to students, the channel that students transfer feedback information to teachers and the channel that students communicate with each other. In order to realize the information channel matching of teaching combination, the online matching content of news communication innovation teaching mode is optimized based on this. The specific content is shown in Table 1:

The greatest advantage of online journalism courses is that students can watch them over and over again, and can control the learning process according to their own learning progress. In teaching activities, teachers and students are the two basic components of the teaching system, which respectively assume the functions of teaching and learning [19]. Teaching and learning are not separate. We should attach importance to both teaching and learning [20]. Therefore, in the teaching process, we should make full use of the respective roles of teachers and students, rationally allocate teaching functions, assign the

Table 1. Matching content of news communication innovation teaching model

Pattern structure	On the construction of innovative teaching mode of news communication		
Teaching	Teaching concept	Teaching design	Teaching objectives
Pattern elements	Flipped: flipped classroom	Live: live interaction	Practical training: practical training
Pattern principle	Students as the main body	Organic dialogue between online and offline	Strengthen the improvement of comprehensive quality
Mixed connotation	Teacher student interaction	Internal and external interaction	Interaction between knowledge and Practice
Mixed targets	Innovation of teaching form	Reconstruction of content system	Knowledge and ability integration
Mixed path	Learning process reengineering	Design of SPOC system	Theme practice plan
Interactive logic	To provide the overall guiding ideology for teaching design and teaching objectives	Provide support management scheme for teaching idea and teaching goal	To provide feedback and evaluation basis for teaching concept and teaching design

functions of support and guidance to teachers, and assign the functions of participation, conversation, reflection and transformation to students [21]. To achieve the best teaching effect, we should pay attention to the matching between the teacher's leading role and the student's leading role, neither neglecting the teacher's leading role nor neglecting the student's leading role. But must realize teacher's leading role and student's main body role matching.

3 Teaching Characteristics of News Communication Talents Driven by Artificial Intelligence

Any method of teaching and learning itself can not be considered as good or bad in isolation, the key lies in whether a certain way is in line with the specific education situation, education content, education object and so on, and obtain good education effect. Given sufficient time to study and appropriate teaching, almost all students can achieve mastery of almost all of the learning content [22]. Proper teaching, in fact, is the teaching that matches students' learning. Matching teachers' teaching methods with students' learning methods helps students to understand the knowledge most easily. Must realize teacher's teaching method and student's study method match. Teaching matching refers to the mutual adaptation, cooperation and coordination between the teaching of teachers and the learning of students [23]. It can optimize the teaching of teachers and

the learning of students. Teaching matching should be carried out from three aspects: teaching content, teaching mode and teaching method, that is, the matching of teaching content and students' nearest development area, the matching of teachers' leading role and students' main role, the matching of teaching method and learning method. In addition, attention should be paid to the matching of information channels and teaching aids with students' operation level [24].

AI -based online learning is more like a one-on-one learning process, unaffected by the environment and the progress of other students, allowing students to focus their attention more easily [25]. According to the actual situation of the students, the teacher makes a detailed study plan. The students use their spare time to finish the online study according to the study plan. Because the students are self-taught, so online learning management and monitoring is particularly important. Knowledge unit learning has been completed online, classroom online and offline is mainly to allow students to complete the comprehensive practice. The best difficulty and complexity of setting up practical projects is slightly higher than the comprehensive strength of online teaching courses in journalism and communication. Form a corresponding strategic structure around this key point, and then integrate the other elements into this key point to design a complete set of teaching matching strategies [26, 27]. According to this classification method, four types of teaching matching strategies can be summed up, which are: methodological teaching matching strategy, content-based teaching matching strategy, mode teaching matching strategy and task-based teaching matching strategy, as shown in Table 2.

Table 2. Teaching strategies of news communication

Teaching matching strategy	Feature description
Method type	Taking method as the center, the framework of teaching strategy is constructed. There are many teaching methods in the teaching process. According to these methods, teachers can choose the appropriate teaching content presentation and learning activities
Content type	The framework of teaching strategy is constructed with the teaching content as the center. This type of strategy is to organize teaching activities according to the attributes of teaching content and internal logical relations
Mode type	The teaching strategy is designed with the activity mode of teaching and learning between teachers and students as the center
Task based	Taking teaching task as the center, design teaching strategy on the basis of creating teaching situation

Because of the different definition of learning style, many different learning style models have been formed, and corresponding learning style measuring tools have been designed according to the models, in order to measure learners' learning style types more effectively [28]. From the four dimensions of information perception, input, processing and understanding, learning styles can be divided into four types: perceptual, visual and verbal, active and meditative. A learning style model is created to provide the basis for learning style analysis in the blended learning environment, as shown in Table 3.

Table 3. Types of learning characteristics of journalism and communication talents

Theoretical basis	Types of learning styles	Learning style measurement tool
Theoretical basis	Assimilator Adaptive type composite Divergent type	Adult learning style scale (LSD)
Types of learning styles	Perceptual/intuitive Visual/verbal Active and meditative Sequential/integrated	Learning style index (CILS)
Learning style measurement tool	Introvert/extrovert Feeling/intuition Thinking/emotion Judgment/perception	MBT learning style scale (mbtd)
Perceptual learning style theory and cognitive learning style theory	Visual type. Auditory type. Kinesthetic type. Tactile. Group type. Personal type	Perceived learning style preference survey (plspq)

Although the knowledge and skills a student learns are limited by his own ability, the influence of the student's learning style on his academic performance cannot be ignored. Learning pattern matching based on the above features can further improve the matching accuracy.

4 Optimization of Teaching Mode Matching of News Communication

The teaching matching strategies are: methodological teaching matching strategy, content-based teaching matching strategy, mode teaching matching strategy and task-based teaching matching strategy. Teaching Matching Strategies for Different Learning Styles Based on Methodology and Content [29]. Method-based teaching matching strategy is designed from the perspective of learning tools, while content-based teaching strategy is designed from the perspective of learning resources [30]. At present, in the process of educational informatization, various means of informatization emerge in endlessly and develop faster and faster. Compared with the traditional methods, the designed

optimization method of news communication teaching mode matching will be applied to the information technology means of education. Eight kinds of technical means, such as courseware, video, micro class, simulation software, mind map, news communication online teaching course, MOOCS, mobile platform and so on, are selected and compared according to the applicability of each stage of the course, as shown in Table 4:

Table 4. Intensity of information teaching matching

Information means	Teaching link/matching strength	Content matching
Courseware	Preview before class (in class) lecture in class (strong) review after class (weak) practice training (weak)	Lecturing content (offline learning cooperating with teacher's explanation) preview content (online cooperating with teaching resources) summative content (online cooperating with teaching resources) operational content (online cooperating with theoretical guidance)
Online course	Preview before class (strong) lecture in class (weak) review after class (strong) practice training (weak)	Lecturing content (offline teaching with teacher's guidance) preview content (independent completion of knowledge points) summary content (independent completion of teaching summary) operational content (online theoretical guidance)
MOOC	Preview before class (strong) lecture in class (strong) review after class (strong) practical training (weak)	Lecturing content (offline teaching with teacher's guidance) preview content (independent completion of knowledge points) summary content (independent completion of teaching summary) operational content (online theoretical guidance)
Mobile platform	Preview before class (strong) lecture in class (strong) review after class (strong) practical training (weak)	Teaching content (online interaction means) preview content (online interaction means) summative content (online interaction means) operational content (online interaction means)

Through carding the characteristics of curriculum, different types of curriculum have been formed, and the teaching methods of these courses are also different. According to the characteristics of information technology means, according to the different types of courses to complete the matching and classification of these means, China's university financial media laboratory compared with foreign universities, although there is still a

certain gap, but has been groping forward. Based on this, a joint teaching innovation platform of news communication based on artificial intelligence is put forward, and a platform of innovation and practice communication is established. The platform is a practical teaching platform integrating production, learning and research, forming a relatively complete practical education and teaching system, and exploring the teaching matching mode of new media planning visual art design + news communication driven by artificial intelligence in practice. In combination with the theoretical logic and knowledge structure of traditional journalism and communication, integrate art design, visual communication, cross-media narrative and other practical teaching frameworks, and make full use of the cross-media practice creation module and audio-visual creation module to carry out the matching of news communication innovation teaching. The specific structure of the platform is shown in Fig. 1:

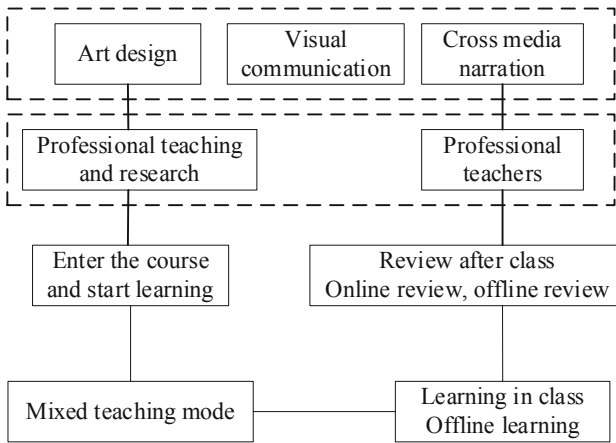


Fig. 1. Matching platform structure of news communication teaching

Based on the platform structure of Fig. 1, the online teaching of news communication specialty can improve the accuracy of teaching matching and guarantee the teaching quality. In the teaching process, the ability of media planning, for many major projects to create a unique cross-media products, enriched the content of the project, enhance the students' cross-media planning ability. Based on the characteristics of active learner and meditative learner, the teaching matching strategy designed in this study is divided into two dimensions: learning resources and learning tools, and different types of students are properly matched as shown in Tables 5, 6 and 7:

Based on the contents of Tables 5, 6 and 7, the online matching of teaching mode for students majoring in journalism and communication with different characteristics can be more accurate for teaching according to the learning characteristics of different students and improve the teaching quality.

Table 5. Online matching strategies for active/meditative students

	Active	Contemplative
Learning characteristics	Prefer to process information in an active experiment; like to study in a collective discussion way	Meditative learners like to think first and then do in the learning process, and tend to think independently before carrying out learning tasks, and summarize the acquired knowledge into their own problem-solving methods
Learn about sourcing	Providing practical learning resources	Provide sample activity results, activity task list and information retrieval tools
Learning tools	Task list of course discussion area, QQ group and Wechat group	Search engine, learning guide

Table 6. Perceptual/intuitive online matching strategies

	Perceptual	Intuitive
Learning characteristics	Perceptual learners like to learn facts, are willing to learn courses closely related to real life, have patience in dealing with detailed learning contents, and prefer to memorize declarative knowledge	Like theoretical knowledge: good at finding possibilities, willing to innovate, thinking jump; do not like repeated memory; good at learning new concepts, like abstract and mathematical reasoning knowledge
Learn about sourcing	Text video source	Cone map, concept map
Learning tools	Active task list web search engine	Web search engine, learning guide

Table 7. Sequential/integrated online matching strategies for students

	Sequential	Integrated
Learning characteristics	I am used to using linear steps to carry out learning. I like to learn conceptual knowledge step by step in the order of syllabus and content organization	Comprehensive learners have strong divergent thinking, their learning path has a certain jump, like to ball mill the relationship between things, through insight to learn and internalize new knowledge, this type of students are good at understanding the relationship between the knowledge points as a whole, and grasp the overall framework of the knowledge learned
Learn about sourcing	Color and font size chart and video resources for marking key concepts	Voice prompt audio resources
Learning tools	Simulation object, network search engine	QQ group, Wechat group, course discussion area

5 Conclusions

On-line matching of teaching means that teachers and students can adapt to each other, cooperate with each other and coordinate with each other in the process of teaching. Teaching matching should be carried out from three aspects: teaching content, teaching mode and teaching method, that is, the matching of teaching content and students' nearest development area, the matching of teachers' leading role and students' main role, the matching of teaching method and learning method. In addition, we should also pay attention to the matching of the information channel of the teaching combination surface and the matching of the teaching assistant equipment with the students' operation level.

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