



A bi-ethnographic study of the use of ChatGPT in dance teaching in Chinese and Thai higher education

Xu Ma, Tuomeiciren Heyang, Yuzhong Yao & Yu Xiao Ren

To cite this article: Xu Ma, Tuomeiciren Heyang, Yuzhong Yao & Yu Xiao Ren (03 Apr 2025): A bi-ethnographic study of the use of ChatGPT in dance teaching in Chinese and Thai higher education, *Research in Dance Education*, DOI: [10.1080/14647893.2025.2483725](https://doi.org/10.1080/14647893.2025.2483725)

To link to this article: <https://doi.org/10.1080/14647893.2025.2483725>



Published online: 03 Apr 2025.



Submit your article to this journal [↗](#)



Article views: 110



View related articles [↗](#)



View Crossmark data [↗](#)



A bi-ethnographic study of the use of ChatGPT in dance teaching in Chinese and Thai higher education

Xu Ma^a, Tuomeiciren Heyang^b, Yuzhong Yao^c and Yu Xiao Ren^d

^aSchool of Music and Dance, College of Chinese & ASEAN Arts, Chengdu University, Chengdu, China; ^bThe Arts International College of Krirk University, Bangkok, Thailand; ^cSchool of Computer Science of Lampang Inter-techl College, Lampang, Thailand; ^dThe Graduate School of Adamson University, Manila, Philippines

ABSTRACT

In the context of the increasing integration of generative artificial intelligence (AI) tools, such as ChatGPT, into higher dance education, this study examines the interaction patterns between dance educators and ChatGPT in educational institutions in China and Thailand, and their impact on the teaching and learning processes. As four dance educators in higher education, we reflect on the potential applications of AI in dance education, based on our own teaching practices. Particularly its role in constructing virtual teaching spaces and facilitating post-human educational interactions. Utilizing a bi-ethnographic approach, we collected and analyzed qualitative data on the interactions between dance educators and ChatGPT through field investigations. Combining bi-ethnographic dialogues, we explored in depth the application scenarios and impacts of ChatGPT in higher education settings. The findings indicate that, despite ongoing debates about the use of generative AI in higher education, it offers positive support for teaching and learning, especially in terms of interactions between human and non-human elements. This research reveals the innovative applications of generative AI in dance education; emphasizes the importance of exploring human-machine interactions in higher education; and provides new theoretical perspectives and practical pathways for the digital transformation of dance education.

ARTICLE HISTORY

Received 4 November 2024
Accepted 20 March 2025

KEYWORDS

AI; dance education; dual ethnography; higher education; ChatGPT

Introduction

Since OpenAI released a chatbot programme, ChatGPT, on 30 November 2022, the working mode of all walks of life in the world has been undergoing tremendous changes, and generative artificial intelligence like ChatGPT has completely changed the working mode of many industries (Y. Liu and Lin 2023). As four academics working at the intersection of dance and higher education, we have been pondering about the impact of generative AI like ChatGPT on dance education, and how this impact may persist. We pay particular attention to the adjustments being made in the higher education environment and the different ways dance is taught and learned in the context of generative AI entering all walks of life. In this paper, we relate our experience of using ChatGPT as

a medium of instruction in the teaching of dance courses in higher education, including the opportunities, challenges and limitations that may arise in the wider practice of higher education.

Due to the release of generative artificial intelligence, such as ChatGPT, ChatGPT is entering higher education at an alarming rate (Y. Zhang, You, and Wang 2024), and all walks of life. The traditional teaching mode of higher education has also been comprehensively impacted (Dempere et al. 2023). During the period between 2023 and 2024, there has been a significant surge in research examining the impact of generative artificial intelligence, such as ChatGPT, on higher education (Adeshola and Adepoju 2023; Jiang 2023; Zeb, Ullah, and Karim 2024). Early studies primarily focused on the challenges encountered during the initial integration of generative AI into higher education, as well as the discomfort experienced by students during its adoption (S. Wang 2023a). Concurrently, research has explored the application of AI in choreography and dance performance (K. Wang and Jiang 2023; Zeng 2024), delving into the potential difficulties of incorporating AI into dance education, that the body serves as the central teaching tool, both in the classroom and online settings. These studies have provided preliminary theoretical and practical support for the integration of AI and dance education (K. Wang 2024). However, our current understanding of how generative AI, like ChatGPT, might change teaching and learning in higher education in the long term is still limited (Shen 2023).

The bi-ethnographic approach used in this study also means that our identity and our cultural context are of great significance. These factors also support the methodological basis of this study and the formation of views.

Our four scholars met at a dance education seminar in August 2023. In the exchange, we found a common interest in internationalization, cross-cultural communication, and teaching design of dance education in higher education. Because of this common interest, we, four dance teachers in universities, have become friendly partners. This kind of equal, open and pleasant exchange is conducive to sincere communication and exchange among scholars (S. Liu et al. 2006). In a free exchange for this dance education seminar in August 2023, Ma Xu shared a video where she and her students were trying to use ChatGPT in class with He Yang Tuomei Tsiren. She said that her students found it very challenging and innovative to use ChatGPT to teach and learn dance lessons. This sparked a discussion among the four of us, and we felt the need to collaborate on an article that would delve deeper into the teaching and learning experience of using ChatGPT.

Along with the generative artificial intelligence of ChatGPT class, the rapid advancement of intelligent education in higher education is promoted. The existing literature reflects that many educators are not necessarily proficient in intelligent education and still often adopt traditional teaching practices. They simply apply such traditional teaching practices to intelligent education formats to varying degrees (Chen 2023). However, CHATGPT-like generative AI has found its way into teaching multiple disciplines in higher education and has also facilitated discussions on instructional design, student well-being, ethics, and more. It provides a good foundation for future higher education to create teaching and learning experiences that are likely to resonate well with teachers and learners (Z. Gao and Wang 2023; T. Wang, Song, and Jin 2024). However, among the numerous intelligent education available for teaching and learning, more attention needs

to be given to the teaching and learning of dance disciplines (Shi 2020). As four teachers from dance disciplines engaged in higher education, we became curious about ChatGPT and its role in our classrooms. Our background in dance first sparked our interest in ChatGPT. ChatGPT enables the rapid generation of dance ideas, and ChatGPT allows many people who might not otherwise participate in dance creation to participate in it for the first time. With this curiosity and subsequent exploration in mind, we decided to collaborate on this article, focusing on our teaching experience with ChatGPT in dance education in higher education and the question that inspired our thinking: How do we experience ChatGPT as a teaching tool?

ChatGPT is a new chatbot model developed by OpenAI, an American artificial intelligence research laboratory. Its biggest feature is that it can conduct dialogues by learning and understanding human language and constantly update its own database through its powerful algorithm ability to realize intelligent software that mimics human language organization. It can also engage in supernormal reasoning interactions based on questions posed by chat partners (T. Wu et al. 2023). At present, ChatGPT can not only carry out conversations but also complete writing, picture production, video production, etc., covering many areas of human work, study and life (Kalla et al. 2023). Within two months of ChatGPT's launch, monthly active users exceeded 100 million (Y. Liu 2023). Although ChatGPT is a relatively new large model of generative AI, it has rapidly risen around the world since its release in November 2022, especially in the past year or so; people have recognized that ChatGPT is being popularized and used in various fields around the world (Y. Zhang, You, and Wang 2024).

When searching the literature, it can be noted that ChatGPT is relatively little explored in the field of instructional design. Kostikova et al. (2024) studied the use of ChatGPT for professional English curriculum development. Chang et al. (2024) also focused on ChatGPT, which they used to design the teaching of nursing courses to promote student learning. S. Wang (2023a) used ChatGPT in her teaching of mental health for college students and found the application value and potential risks. ChatGPT has been used and explored in many areas outside of educational settings, from enriching legal supervision and building a new generation of integrated legal platforms to drawing advertisements (Rodriguez-Sarmiento, Galpin, and Sanchez-Riaño 2024), facilitating marketing communications and optimizing search engines (Knuuttila 2024). Therefore, there is still much room for research exploring ChatGPT's potential to provide learning.

In this paper, we take a dual ethnographic approach to exploring our interactions with ChatGPT in teaching and consider this methodology as a form of 'reflection in action' in the light of Schon (2017). The 'prevalence' of ChatGPT around the world, its unknown impact may have on higher education, and the uncertainty of its future development remind us that we can only provide limited insights into ChatGPT's early entry into higher education. Although ChatGPT will be widely and deeply applied in the field of higher education in the future, relevant research results will be more and more abundant, and the depth of research can also touch the teaching design of every subject and course in higher education. However, in the early days of ChatGPT's entry into higher education, it is still vital that we express and share these experiences as a way to examine the process and reveal the teaching and learning that ChatGPT offers. We believe that despite its cross-cultural context and specific time orientation, this study has the potential to make a small contribution to the development of the body of knowledge for ChatGPT to

enter the field of higher education to carry out teaching and the future exploration of other practitioners in the field of education. The following sections provide an overview of the methodology employed in this research, including the theoretical framework and cultural context in which we are positioned.

The position of dual ethnographic methodology and multicultural orientation

The research method of dual ethnography is adopted in this paper. Biethnography, as a form of qualitative research, is a collaborative research methodology in which multiple researchers collaborate to engage in a dialogue about the different phenomena presented within a phenomenon, with each researcher's voice explicitly expressed. They work collaboratively to understand and interpret the significance of this phenomenon (Burleigh and Burm 2022). In the study of dual ethnography, researchers aim to engage in written dialogue through a play-like format, questioning and reconstructing existing ideas. The research method of dual ethnography is a critical dialogue between authors, transcending regional and cultural differences, exchanging their own subjectivity and experience with each other, and closely combining theoretical frameworks to complete the interpretation of specific phenomena (Lowe, Kiczowski, and Lu 2016). Through existing studies, we have found that in bi-ethnographic communication, explanations for specific phenomena are usually produced through the dialogue jointly constructed by researchers and through the continuous interweaving process (Runa and Martin 2021).

We shared online documents over four months from March to July 2024 and developed the body of our critical dialogue. During these four months, the four researchers wrote at least once a week in a document to share our teaching experience. During this time, if we find more teaching experiences or ideas, we will also write more. From the very beginning of our writing, each of us simply wrote in accordance with his own style of consciousness. After about two weeks, the four of us started asking each other questions. Of course, given that we are having some conversations at the beginning of our teaching experience, we have not assigned a particular focus, but rather more understanding and inclusiveness allow our conversations to expand in many directions. We also shared videos of ChatGPT classes with each other on WeChat to explore more potential that ChatGPT could bring to course teaching. Our exploration of using ChatGPT to teach courses included watching videos of each other's teaching experiences, following students' comments, and being honest and open about documenting your own teaching experiences. At the same time, when the four of us had a long conversation in our online document, we began to use 'Reflection in action' analysis, and to distil the key themes that emerged around the focused questions. Immediately afterwards, we edited our conversations around the key emerging themes that emerged. Last month, we reviewed the paper. Using shared documents, it took us about four weeks to expand these conversations into more textual material. Our purpose in expanding the additional textual material is to expand the specific ideas related to our own teaching experience, the learning experience of our students, and the cultural context in which we are located, and we have edited this expanded bi-ethnographic material into the dialogue text.

In the analysis process of this paper, we adopted narrative text and theory in parallel (Graesser, Singer, and Trabasso 1994). Refining narrative text, we present the key points

we need to discuss and form these meanings. As scholars such as Graesser, Singer, and Trabasso (1994) explain, ‘the parallel of narrative text and theory does not follow a particular approach. It relies on borrowing and reconfiguring concepts, creating methods, and creating new combinations, based on intellectual inferences, reference to cultural contexts, to produce theories.’ We also observe that advocate starting from an open and inclusive perspective, then narrowing the focus to specific themes and ideas, further refining the method and applying it extensively to case studies. This approach resonates with our own teaching methodology.

In the application of theory, we combine critical theory with a posthuman perspective. We accomplish this by drawing on the critical theory of intelligent education to support body movement in dance education while using posthumanist theory to guide our dialogue. This includes a critique of the inherent conservatism of humanism through the lens of posthumanism (Herbrechter et al. 2020).

Multicultural orientation is very important for us to focus on our experience conducting ethnography research (Stahl and Maznevski 2021). We are also aware of our cultural position in China and Thailand, the cultural differences brought by these two countries, and the differences in the education system (including dance education). At the same time, it is particularly noteworthy in this study that China and Thailand have different positions in formulating education policies and teaching practices due to their different cultural backgrounds (J. Gao 2021). In China, the development of education is strategically aligned with pragmatic objectives to support national construction efforts. A significant milestone in this direction was marked by the release of the Action Plan on AI Innovation in Universities in 2018, which has since catalyzed a substantial increase in the integration of AI technology within the education sector (T. Wang and Ren 2018). After the Chinese Ministry of Education launched the AI Empowered Education Action in 2024, the close integration of AI technology and teaching and learning in educational institutions was promoted (Su 2024). In Thailand, education focus on adaptive learning, a learner-centred approach that presents free, inclusive teaching characteristics, Thailand’s education policy focuses on encouragement, ethics, privacy and data protection when using educational technology (Muangmee et al. 2021). Although our dual ethnographic work does not deliberately seek to compare educational policies and teaching methods between China and Thailand, their unique cultural backgrounds inevitably influence and shape our teaching experience (Wei et al. 2022). In the dialogue shared below, we present the unique identities and cultural positioning of Chinese and Thai teachers. At the same time, it is necessary to acknowledge that we are four dance educators and researchers, and we aim to share, reflect, analyze, and question the use of ChatGPT in dance teaching and learning environments.

In conclusion, the four researchers employed a bi-ethnographic approach to engage in authentic and egalitarian dialogues, documenting our genuine teaching experiences and the questions raised by students. While it is acknowledged that completely eradicating personal biases is unattainable, significant efforts were made to uphold a neutral perspective throughout the dialogue and data collection phases. This approach was critical to preserving the validity, reliability, and overall credibility of the research findings. This approach allowed us to reflect on the potential applications of generative artificial intelligence in dance education, particularly its role in constructing virtual teaching spaces and facilitating post-human educational interactions, based on our own teaching

practices. We base this article on our own experience, so we do not need ethical permission to collect shared data. At the same time, we pay great attention to the ethical issues in our dialogues, and we strictly follow the requirements of the ‘Academic Ethics Manual of the Chengdu University of China’ to avoid mentioning the names or identifiable details of individuals other than our four authors.

Dialogue

The following conversations have been carefully constructed through our shared teaching experiences, ideas, narratives, and findings and have been edited. Although we would like to share more teaching experiences and stories from teaching, due to the word limit in this article, we had to set aside many of the stories we shared together and tried to preserve the most important points of our discussion in the dialogue below. We invite readers to join us as a third party in the conversation to hear our thoughts on teaching with ChatGPT, our small victories in teaching, and our frustrations with teaching using ChatGPT.

Ma Xu: Teaching dance courses in our university attaches great importance to practicability and actively follows the master-apprentice mode according to the traditional dance teaching mode. Therefore, cultivating students’ technical skills has become the mainstream of dance course design and teaching implementation. Ren Yuxiao (one of our four authors) and I teach ‘dance creativity’ to students at the university. In teaching this course, we are actively looking for ways to change to a more active dance teaching method that is more student-centred and can promote teacher-student interaction. Perhaps this is not ‘new’ outside of China, but it should be noted that the traditional ‘master-apprentice model’ of dance teaching in China is still dominant, so the teaching of skills is the focus. In January of 2023, my colleagues told me about an artificial intelligence called ‘ChatGPT’ that can communicate with people, create dance scripts, and generate pictures based on text instructions proposed by people. So, I discussed with Yuxiao Ren (one of our four authors) that we could try to use ChatGPT to give students innovative, exploratory, interactive teaching during the March to June 2023 ‘dance creativity’ course. We believe that, in the early days of the release of generative artificial intelligence, using ChatGPT for dance teaching in Chinese universities represents a relatively rare exploration within the context of Chinese higher education, which traditionally emphasizes the ‘mentor-apprentice model.’ We discovered that many students in our class were exploring the use of ChatGPT on their own and sent us a message on WeChat asking if we could teach them to use ChatGPT to create their own dance ideas as part of our ‘dance creativity’ course. I asked my students on WeChat, ‘Why would you want to learn to use ChatGPT?’ The answer given by the students was that learning to use ChatGPT would give us more creativity and speed up our creation when creating dances. Some students also said that learning to use ChatGPT gave them more interdisciplinary and cross-cultural creativity and collaboration, and they could create and practice dance with students from other disciplines.

Ren Yuxiao: I also saw that the students of the ‘Dance Creativity’ course sent me messages on WeChat, which also contained different ideas. Students wrote in their WeChat messages to me that learning to use ChatGPT would make it easier for them to find jobs because the current job market requires interdisciplinary skills. So, Ma Xu (one of our four authors) and I used ChatGPT to give students an interactive teaching session in May 2023 in a ‘Dance Creativity’ class to test the learning experience of ChatGPT. We taught the students how to formulate in the text for ChatGPT, and 30 students sent a prompt in their ChatGPT dialogue box: ChatGPT, can you write a 500-word Chinese creative dance text for me? My dance creative theme is ‘Gulin Lantern’, a traditional folk dance from Sichuan Province, China. In an instant, 30 students received a reply from ChatGPT on their own ChatGPT page, and because of the efficient operation of the large AI model, ChatGPT gave each of the 30 students a different character of the idea. When the students used it, many of them screamed loudly and excitedly. One of them cried excitedly, saying, ‘This is amazing. In 10 seconds, I completed an idea that I could not think of for six months before.’

He Yang: Yes, I fully understand what Ma Xu and Ren Yuxiao (two of our four authors) are saying about the excitement of students, and I congratulate you on the positive experience you have brought to students and the success you have achieved in teaching. I also understand the ‘master-apprentice model’ you are talking about, because I was once a Chinese folk dancer, and I once won the highest award of Chinese folk dance, the ‘Lotus Award’. In January 2023, I was hired by Thailand’s Kela University as a professor to teach students the ‘Dance creativity’ course. At that time, I was following the traditional mode of dance teaching and did not consider the use of ChatGPT in my course teaching. Moreover, I believed that the way I taught ‘Dance creativity’ was to focus on human creativity, and that dance creativity must be completed by people themselves and carried out from beginning to end. It now seems that I was too ‘traditional humanist’ at the time, and I ignored the fact that times change, things change, and so do our teaching methods. For me, I joined teaching with ChatGPT at a later stage. I have heard about the power of ChatGPT, and I first encountered it when Ma Xu (one of our four authors) shared a video of your class with us at our dance education seminar in August 2023. Later, inspired by your teaching experience using ChatGPT for a ‘Dance creativity’ course, I started looking for a way to incorporate ChatGPT into the practice of a ‘Dance creativity’ course I taught with Yao Yuzhong (one of our four authors) in Thailand. In January 2024, we tried it just once in our ‘Dance creativity’ class. Thai university students are looking forward to it, and we constantly have students asking us before class: ‘Teacher, do I need to prepare anything in advance? Do I need to download any software? Can I get an unexpected dance idea in less than a minute?’ I know that students are full of expectations and want to actively explore new things. This is also closely related to Thailand’s education, which encourages students to explore and is fully inclusive of students’ exploration and innovation. So, Yao Yuzhong and I decided that this would be our opportunity to incorporate ChatGPT into our ‘Dance creativity’ course practice. In the past, I would ask my students to give a TED talk on the social current affairs topic of dance and justice. TED Talks are challenging for dance students, who have less than 18 minutes (accompanied by PowerPoint slides and video materials) to present

their own ideas on complex social and current affairs topics, including dance and justice. However, this time, Yao Yuzhong and I decided to change the form of class from TED to students' on-site learning using ChatGPT and give speeches according to the results of on-site use. We thought perhaps such a practice might make this task more challenging.

Yao Yuzhong: Yes, as He Yang (one of our four authors) said, at the beginning of the Dance Creativity course, I saw that some of the students in our class were a little confused about what we were proposing. Some students were excited to use ChatGPT right away, while others said they had never touched it before. My sense is that they may be somewhat skeptical about using such a generative AI with novel elements in dance classes in higher education. Of course, this beginning also made He Yang (one of our four authors) feel a little frustrated and did not give us confidence. However, we actively encouraged the students by first teaching them to log on to ChatGPT, then asking ChatGPT questions, and then teaching them to generate images based on the creative text provided by ChatGPT. After the session, when the students got the creative text and pictures provided by ChatGPT, many of them were excited and applauded, just like your students in China, including the students who were confused at first. He Yang and I were very happy at that time and felt the confidence that the students gave us. Ma Xu (one of our four authors): Do you think students in China use ChatGPT a lot in their daily studies?

Ma Xu: Yes, I have seen our students often use ChatGPT in their studies after we taught them to use ChatGPT, as well as in creative academic paper writing and conversations about life and entertainment. At the same time, I understand the challenges that you and He Yang face in classroom teaching in Thailand, and I think it may be related to whether the students have learned how to use ChatGPT in dance learning in higher education properly. For me, it was the enthusiasm with which students learned by using ChatGPT that motivated me to continue using it in my teaching. My college also set up the 'AIGC Dance Creative Teaching Lab' in April 2024, which greatly encourages my future teaching plans. During 'Dance Creativity' this semester, Ren Yuxiao (one of our four authors) also instructed our students to make a one-minute dance video and posted it on China's Douyin platform, where it got a lot of 'likes'.

Ren Yuxiao: Yes, I guided our students to make a one-minute short dance video in the Dance Creativity course that I taught with Ma Xu (one of our four authors). I instructed the students to first ask ChatGPT questions about creating dance ideas for 'Ke mu san' and then continue to give ChatGPT instructions on how to generate pictures based on the creative text provided by ChatGPT. After getting the pictures generated by ChatGPT, I instructed the students to use the function of 'Photo generation video' in the 'Clip' software to synthesize the pictures generated by ChatGPT into a short video and then set the background music of 'Ke mu san'. In this way, in a very short time, the students made a creative dance video by themselves. They selected one of the short dance videos they made and shared it on the Chinese platform TikTok, where members of the public

watched the dance video, interacted with the students, sent messages to the students, and participated in the students' online communities. This short video made our students famous in a way that Ma Xu and I had never planned, and it made us feel a little 'victory' in using ChatGPT for dance teaching. I honestly want our students to become 'popular.'. I mean, who doesn't get a thrill when a dance video posted by one of their students gets a 'like'? It can be seen that in my university, this kind of fast and efficient teaching of dance creativity is very valuable for teaching a subject like dance. However, it is hard work to keep our ability updated and developed in the same way as ChatGPT. After all, Ma Xu and I have not had formal training on how to use ChatGPT in higher education dance teaching. We are just constantly exploring our own skills.

He Yang: Yes, Yuzhong Yao and I (one of our four authors) are also using our own explorations of ChatGPT to guide our teaching. I thought students might like this innovative form of teaching, but when I talked to my colleagues, I got an unexpectedly different voice. Some of my colleagues felt that this was not really a 'serious' teaching activity and immediately raised concerns about the 'destruction of traditional culture', which is a very serious issue in Thailand's traditional culture preservation institutions. This made me a little nervous. Some students said to me, 'ChatGPT is so powerful and so creative. Why do we need to dance? We can change careers.' In my opinion, as ChatGPT begins to enter higher education, it is essential for teachers and students to use it accurately in teaching. This includes exploring how it can contribute to the development of the dance profession, identifying ways to avoid harming traditional culture, and addressing the ethical considerations surrounding the use of ChatGPT in higher education. There are still many problems that we need to continue to practice and do more critical research.

Ma Xu: Yes, I also think that there will be a lot of problems and ethics worthy of practice and critical research at the beginning of ChatGPT's entry into higher education. I also believe that there are many people who are 'confused' or 'hard to understand.' In May 2024, three months after the four of us started writing and sharing our teaching experiences weekly, Yuxiao Ren and I (one of our four authors) were teaching a course on 'Dance Creativity' when several students told us in class: 'ChatGPT generated dance ideas and videos so quickly, it seems we will have to lie flat in the future.' 'Lying flat' is not a positive phenomenon; 'Lying flat' is a current Internet buzzword in China, meaning that no matter what the other person does, you will not have any reaction or resistance, and your heart will not stir. In the face of the deep adjustment of industrial structure brought about by the emergence of generative artificial intelligence, such as ChatGPT, the development space of traditional industries is limited, and the competition for jobs in the dance industry is becoming more and more fierce, which ultimately reflects the work and life at the personal level, forming the phenomenon of 'Nei juan'. Therefore, the students' 'lying down' also expresses the students' concern about the employment pressure caused by the emergence of ChatGPT for dancers who only know traditional skills.

Yao Yuzhong: But Ma Xu, do you think the use of ChatGPT in teaching is just a stage, just a means to ‘Xi jing’ of students? Can ChatGPT limit our creativity as human beings or make us dependent on it?

Ma Xu: ChatGPT was obviously not developed for teaching purposes. So, we as educators need to remember that it is designed for other purposes, not that we must rely on it. In China, ChatGPT and other generative AI dance teaching are very popular; many university teachers, government officials, and entrepreneurs in the private sector use ChatGPT and other generative AI. After China’s ‘Two Sessions’ in March 2024, the governor of Sichuan Province, where I live, also went to the University of Electronic Science and Technology of China, which is attached to us, to attend the founding conference of the ‘Artificial Intelligence Institute’. We have seen recent news reports that some excellent comprehensive universities in China, such as Sichuan University, are gradually withdrawing traditional teaching majors such as dance performance, vocal music performance, and broadcasting and hosting. Therefore, I think the use of ChatGPT in teaching is not a short stage, not a ‘bait’ for students to ‘Xi jing’, but to promote the development of teaching, provide students with a variety of learning modes, and promote the opportunity for students to improve their learning ability. At the same time, in general, I see that in my ‘Dance Creativity’ course with Ren Yuxiao (one of our four authors), the students really enjoy the creative dance learning experience that ChatGPT brings. But, having said that, Yang He (one of our four authors), do you think it also has something to do with the cultural context of where we each work? How is the use of ChatGPT in education viewed and developed in China or Thailand more broadly?

He Yang: Of course, over the last 10 years, I have taught dance courses in many different cultural institutions of higher education, universities in China, universities in New Zealand, universities in the United States, universities in the United Kingdom, and universities in Thailand, where I am working now. I noticed that each place had a different understanding and approach to the use of technology in education, including the use of AI or, more specifically, which AI technologies to use. But to be clear, some of my experiences predate ChatGPT. Given that ChatGPT is now almost two years old and entering this period in higher education, where efforts are being made to adapt education to The Times, things have changed dramatically everywhere. In May 2024, Thailand’s Ministry of Higher Education, Science, Research and Innovation launched the ‘MHESI for AI’ policy and proposed to incorporate AI into university curricula to ensure that students and university staff understand AI and can use it effectively. I think until December 2022; it would be almost impossible to imagine teaching dance classes in a university setting via AI, like ChatGPT, which was not even considered. In the past, I used social media platforms like Douyin to teach dance classes and gained 200,000 fans. It can be seen that our teaching experience has been improving with the development of The Times. However, I have noticed that some students have raised concerns about increasing the difficulty of their employment because of the powerful function of

ChatGPT, and some teachers have raised concerns about affecting the protection of traditional culture because of the automatic generation of dance ideas by ChatGPT, which I fully understand. I also recognize the complexity surrounding ChatGPT's entry into higher education, which we have yet to fully understand, dissect, and establish, especially regarding ethics, intellectual property, and privacy concerns. I believe that before these issues are fully 'resolved,' we should continue to use ChatGPT seriously in curriculum teaching while actively exploring and critically studying its potential. We may not yet have fully experienced all the value ChatGPT can bring to the development of teaching.

The discussion that emerges from the aforementioned bi-ethnographic dialogue

From the above double ethnographic dialogue between our four authors, we began to reflect on what the teaching experiences we shared in our conversations with each other might reveal. By applying the thought process of narrative text and theory in parallel (Graesser, Singer, and Trabasso 1994), we explored in depth the concepts that resonate in our bi-ethnographic dialogues. We discussed in depth the following questions: What encounters does the use of ChatGPT in education bring us with posthuman education? What meaningful space and ethical issues might the changing educational agendas in China and Thailand raise for the use of ChatGPT in higher education? How will higher education benefit from the engagement of generative AI, such as ChatGPT, for higher education and wider learning? Conversations around these issues have gradually shaped and focused our discussions.

The starting point for integrating ChatGPT into our curriculum and exploring it in different ways is the work of the 'posthumanist theorist', as well as a number of educational scholars who have been exploring posthumanist perspectives on intelligent education (Biswas Mellamphy 2021; Dube et al. 2023; Nath and Manna 2023). We will discuss three areas of interest. First discussion: We use ChatGPT in teaching to explore an encounter with posthuman education. Second discussion: We dissect how generative AI, like ChatGPT, can create meaningful spaces for teaching and learning in higher education settings. Third discussion: As we move into reflections on discipline-specific contributions to dance, what can generative AI like ChatGPT offer for body expression in the teaching of dance in higher education? In these discussions, we argue that dance as a learning form of physical expression and generative AI like ChatGPT can be a platform and medium to explore new teaching and learning methods. At the same time, we also highlight what the discipline of dance may 'lose' when teaching dance through digital technology.

From the beginning of this discussion, all four of us acknowledged that our attempts to bring generative AI like ChatGPT into higher education and to integrate ChatGPT into our curriculum were not moves that everyone might be comfortable with or interested in. However, we must also acknowledge that ChatGPT's release in November 2022 ushered in an era of AI and higher education peers (Xu and Duan 2024), and the possibilities and opportunities contained in the teaching experience we explored and shared were beneficial.

Exploring ChatGPT's encounter with post human education

Our four teachers brought ChatGPT into our teaching and learning activities, which also caused some teachers and students to have human-computer symbiosis anxiety. This kind of human-machine symbiosis anxiety is actually not uncommon, and there have been different 'human-machine symbiosis anxiety' in the past two decades (Hudlicka 2003). It is only with the advent of generative artificial intelligence such as ChatGPT and its powerful functions that we can more closely observe that humans and artificial intelligence have become intimate and have perfect encounters in multiple fields. As explained by many scholars, the convenience brought by artificial intelligence to life (Cheng et al. 2023), and the creativity brought to work have quietly entered our lives and work (Zhao and Xing 2024; Zheng, Fan, and Jia 2024). In this encounter, we also see that post humanist thought provides a research perspective for these phenomena.

In reflecting on the experience of our four teachers using ChatGPT in their teaching, we may have moved away from the pure, traditional, master-apprentice model of teaching dance skills and were constantly looking for ways to extend dance teaching into the posthuman space. Posthumanist philosopher Rosi Braidotti (2016) articulates the idea that 'disagreeing' in a given mindset is essential to an ethics and inquiry that demands respect for the complexity of the real world in which we live. In such a view, ethical considerations include the exploration and understanding of non-human actors (including animals, sound, light, plants, objects, technology, etc.) (Xie and Wang 2024). Through our experience of teaching with ChatGPT, if we look at it from the perspective of, we may need to consider abandoning the previous traditional teaching model with humanism as the core, removing the centralization of the humanistic perspective and rethinking the teaching methods adapted to the contemporary era. We need to see ChatGPT as a beautiful encounter with teaching and learning.

Of course, the four of us teachers have also discovered through our discussions that by integrating ChatGPT into our teaching and learning activities, we can actively explore the expansion of dance teaching into the posthuman space. This includes the exploration, formation, development, and sharing of this teaching method, as well as examining the relationship between humans and both human and non-human elements. Many assumptions may be made about the future of teaching, but the relationship between human beings and the mode of teaching under the influence of humanism will also be challenged. As J. Li (2020) said, 'Teaching is closely related to one's beliefs, values, teaching goals, and relationship with students, and changes in teaching methods and teaching methods may break traditional teaching and trigger emotional reactions.' We also found that a person's environment has a lot to do with how he or she may view the use of AI in teaching practices and that different regional higher education environments may hold different views (Peng 2022). As Ma Xu and Ren Yuxiao mentioned in this article, their college has established the AIGC Dance Creative Teaching Laboratory. In contrast, colleagues of He Yang and Yao Yuzhong felt that it was not a 'serious' teaching activity and raised concerns about the destruction of traditional culture.

The role that generative AI, like ChatGPT, might play in higher education still needs to be critically explored. N. Zhang (2017) suggested that educators and education researchers should consider the inclusiveness and valuable space that teaching reform can bring to teachers' teaching and students' learning. With the above perspectives in

mind, we explore the different teaching and learning experiences that ChatGPT may bring to teachers and students in China and Thailand, which are related to the spatial and social constructs that ChatGPT may create.

Multi-cultural considerations in virtual space production and social construction provided by ChatGPT for teaching and learning

The virtual space production created by ChatGPT is also the main point of our discussion. ChatGPT provides a new powerful virtual space for creativity and production (B. Liu and Cui 2023). In the conversation for this article, Ma Xu said that the students in his class said that ‘when creating dance, learning to use ChatGPT can better provide us with ideas and speed up our creation.’ Ren Yuxiao mentioned that in a ‘dance creativity’ course in May 2023, he and Ma Xu had their 30 students receive responses from ChatGPT on their own individual pages. Due to the efficient functioning of the AI model, ChatGPT provided each student with distinct ideas, each with its own unique characteristics. He Yang also highlighted in the conversation for this article that he and Yao Yuzhong changed TED to students using ChatGPT live in the ‘dance creativity’ course in January 2024 and gave talks based on the results of live use. These ‘ideas’ obtained on ChatGPT’s platform, as well as the presentation of results based on the ‘ideas’ received from ChatGPT, are a kind of virtual space production (X. Zhou 2022). Also, in teaching and learning, students actively carry out ‘virtual space production practice’ in the process of virtual space production. Virtual space production practice is an extension of virtual space production, which refers to the practical activities of social production in a virtual environment (Cao and Fan 2023). As Yao Yuzhong mentioned in the previous dialogue, the students asked ChatGPT questions and then gave instructions to ChatGPT to produce pictures according to the creative text provided by ChatGPT. After receiving the creative text and pictures provided by ChatGPT, many students shouted excitedly. This virtual space production practice surprised the students in Thailand, and they also experienced the empowerment and happiness brought by ‘virtual space production practice’ for learning. Ren Yuxiao also shared in the previous conversation that the students asked ChatGPT to provide creative text and generate pictures, and then synthesized them into short videos with the ‘cutting’ software and matched them with suitable background music and got a creative short dance video of ‘Ke mu san’. The students shared the short video of the creative ‘Ke mu san’ dance on China’s Tiktok platform, where members of the public sent messages, interacted, liked and participated in the students’ online communities. Through these teaching and learning experiences, it can be seen that the above Chinese and Thai students’ practice of using ChatGPT in their learning is driven by digital technology and virtual reality technology, so that their interests have become digital creativity and transformed into digital cultural resources. Virtual space production is carried out in the practice of virtual space (Cao and Fan 2023).

Although our experiences with ChatGPT in universities in China and Thailand are different, we both agree that ChatGPT provides a virtual space for students to be creative and productive. However, such ‘virtual space production’ does not always make everyone feel so good, and it also presents different expressions in multiple cultures. Su (2024, 121–123) once said: ‘Technological development needs to conform to social construction, and multi-culture makes the use and development of artificial intelligence

influenced by social and cultural factors.’ In the conversation, He Yang mentioned that his Thai colleagues felt that this was not a really ‘serious’ teaching activity and raised concerns about the destruction of traditional culture.

As John et al. (2024, 85–92) describe it, ‘a reasonable technology is one that is endowed with appropriate behavior, cultural identity, etc. that the general public has understood, is socially constructed, and contains cultural elements.’ While focusing on inclusiveness and innovation, higher education in Thailand also pays attention to the protection of traditional culture, which is the appropriateness of social construction (Yun, Liu, and Liu 2013). Similarly, in Ma Xu’s narration, we also see that ChatGPT may be a ‘disaster’ for her and some of Ren Yu xiao’s students, because the power of ChatGPT makes some of their students feel that they can only choose to ‘lie flat’. As X. Wu (2024, 257–259) points out, ‘The correct use and ethics of artificial intelligence in education also need to think and adapt to social construction and cultural factors’. Ma Xu also shared in the previous text conversation that the educational environment in China, where she is located, is focused on practicality, which is linked to the ‘AI Innovation Action Plan for Universities’ launched by the Chinese Ministry of Education in 2018. It emphasizes the ability to serve the needs of the country (H. Li and Fan 2018). Some students of Ma Xu and Ren Yuxiao, after feeling the rapid creativity and generation function of ChatGPT, felt that their daily learning of traditional skills to show dance techniques could not match the rapid creativity of ChatGPT, and thought that they could not adapt to the needs of the current social employment market, so they chose to ‘lie flat’. The above manifestations in the teaching and learning experiences of Chinese and Thai teachers and students, no matter the anxiety of ‘not serious’ or the helplessness of ‘lying down’, all contain factors of social construction. Social construction factors also directly or indirectly influence their reflection on the use and treatment of ChatGPT, which confirms the personal factors and social construction in teaching and learning (Rao, Cheng, and Xu 2023). Perhaps there may be a wide range of similarities and differences in any educational environment, and we as educators may have to continually critically explore them.

While considering the virtual space production and social construction that ChatGPT may provide for teaching and learning, it is crucial to pay attention to issues of multiculturalism, digital literacy, privacy, and information security. We consider that different regions and higher education institutions around the world may have different considerations about the use of generative AI, such as ChatGPT, in formal higher education practices and what is or is not appropriate. However, as generative AI, such as ChatGPT, has gradually become more widespread, global higher education will continue to face challenges from generative AI technologies, values, and ethics in educational practices.

What dance can bring to the conversation about ChatGPT in a higher education setting?

The question of how to explore the discipline of dance in which we work and how to provide insights or challenges to the ‘pedagogical dialogue’ of using ChatGPT for dance education is a topic we need to explore. From the conversations of the above four teachers, it can be seen that ChatGPT is useful for generating the content needed in dance teaching, exploring dance creativity and participating in dance

concept design. These functions may make us as educators inclined to use generative artificial intelligence, such as ChatGPT, to support our teaching and learning. As Ma Xu said in the dialogue, the use of ChatGPT in teaching is not a short stage, not to be used as ‘Xi jing’ ‘bait’, but to promote the development of teaching, provide students with a variety of learning modes, and promote the opportunity to improve students’ learning ability. At the same time, it can also be seen that this need has become urgent through the release of China and Thailand in the education agenda mentioned by Ma Xu and He Yang in the dialogue (Kongthon 2023; T. Wang and Ren 2018).

When using generative artificial intelligence such as ChatGPT in dance education, we also need to consider that the teaching of dance creativity has changed from the original creativity of a single person to a learning scene involving human-machine interaction through artificial intelligence digital technology. As dance educators, we also see that the current artificial intelligence technology cannot fully achieve the human emotions and emotional details that can be expressed in creativity (Wan 2024). However, the challenge for us educators is adapting and transforming our traditional and inherent teaching practices. In our teaching practice, we aim not only to provide students with the essential content we want them to learn, but also to offer a comprehensive, inclusive, personalized, and creative learning experience that resonates with their needs and the social constructs they are part of.

The integration of ChatGPT into dance teaching exemplifies the convergence of artistic practice and posthuman thought, as highlighted by Tao and Chen (2023): ‘Artistic activities should be posthuman in practice because it brings our artistic practice to the field of continuous innovation and inclusiveness.’ Dance learning, like many disciplines, thrives on creativity, and adopting a posthuman perspective allows for transcending the limitations of humanism to embrace greater inclusivity. Furthermore, the application of generative AI tools, such as ChatGPT, in higher education presents valuable opportunities to inspire innovative ideas, enhance global communication, and promote multicultural exchange, fostering an environment of inclusiveness and collaboration.

Conclusion

The integration of generative AI, such as ChatGPT, into higher education represents a pivotal shift in teaching methodologies, offering opportunities to redefine traditional pedagogical boundaries and foster innovation. As demonstrated through the dual ethnographic exploration in dance education within China and Thailand, generative AI provides an avenue for expanding teaching concepts, tools, and models. However, its adoption necessitates a continuous process of inquiry, evaluation, and adaptation. Educators must remain vigilant in assessing the value and implications of these technologies while embracing the uncertainties and inclusivity inherent in their application. By fostering a positive interplay between human creativity and the capabilities of generative AI, higher education institutions can create a more dynamic, collaborative, and forward-thinking learning environment. This ongoing exploration will be critical in shaping educational practices and policies for an era marked by profound technological transformation.

Acknowledgments

I extend my heartfelt gratitude to Ruoxi Cui, a PhD candidate in the Dance Department at the University of Auckland, New Zealand, for her invaluable assistance in proofreading this manuscript. Her meticulous attention to detail and constructive feedback have greatly enhanced the quality of this work.

I am also deeply thankful to Dr. Yuzi Lin, Dean of the Arts International College of Krirk University in Thailand, for her unwavering support and encouragement throughout the course of this research. Her guidance has been instrumental in shaping this study.

Their contributions have been pivotal to the successful completion of this manuscript, and I am sincerely appreciative of their time and expertise.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This research was funded by the “Research on the Practical application of AIGC Artificial Intelligence in Art Education in China and Thailand” project of Thailand Research Center, Chengdu University, China, project number [SPRITS202415].

Foundation

This research was funded by the ‘Research on the Practical application of AIGC Artificial Intelligence in Art Education in China and Thailand’ project of Thailand Research Center, Chengdu University, China, project number [SPRITS202415].

GLOSSARY

Ke mu san (科目三)

China’s popular network words, originally part of the motor vehicle driving test, now refers to a silky little dance routine that makes you want to dance along. *Ke mu san* is also generally referred to as exaggerated, demonic, similar to local ‘modern disco’ actions.

Nei juan (内卷)

China’s network buzzwords Chinese college students used it to refer to irrational internal competition or ‘being willing’ to compete. It is now referred to as the phenomenon of peers competing for limited resources, resulting in the decline of individual ‘income effort ratio’. It is an ‘inflation’ of effort.

Xi jing (吸睛)

A Chinese internet buzzword describes something or an extremely attractive phenomenon that can quickly attract people’s attention.

Notes on contributors

Ma Xu (PhD) is an assistant researcher at the School of Music and Dance at the China-Asean College of Arts, Chengdu University, China, focusing on dance education and multiculturalism.

Tuomeiciren Heyang is part-time professor of the Arts International College of Krirk University in Thailand. His research interests include dance education; dance ethnography; and comparative dance.

Yao Yuzhong is the Associate Dean of the International Faculty at Kela University in Thailand, focusing on dance education and student well-being.

Yuxiao Ren is a trainee teacher at the School of Music and Dance at the China-Asean College of Arts, Chengdu University, China. He is also working on his PhD. He currently assists Ma Xu in teaching and designing the class, focusing on dance education and multiculturalism.

ORCID

Tuomeiciren Heyang  <http://orcid.org/0000-0001-6887-1505>

References

- Adeshola, I., and A. P. Adepoju. 2023. "The Opportunities and Challenges of ChatGPT in Education." *Interactive Learning Environments* 1–14. <https://doi.org/10.1080/10494820.2023.2253858>.
- Biswas Mellamphy, N. 2021. "Humans 'In the Loop'?: Human-Centrism, Posthumanism, and Ai." *Nature and Culture* 16 (1): 11–27. <https://doi.org/10.3167/nc.2021.160102>.
- Braidotti, R. 2016. "Posthuman Critical Theory." In *Critical Posthumanism and Planetary Futures*, edited by D. Banerji and M. R. Paranjape, 13–32. Springer India. https://doi.org/10.1007/978-81-322-3637-5_2.
- Burleigh, D., and S. Burm. 2022. "Doing Duoethnography: Addressing Essential Methodological Questions." *International Journal of Qualitative Methods* 21. <https://doi.org/10.1177/16094069221140876>.
- Cao, Q., and B. U. Fan. 2023. "Metaverse: Embodied Practice of Production-Consumption in Virtual Space." *Journal of Beijing University of Aeronautics and Astronautics Social Sciences Edition* 36 (4): 149–154.
- Chang, C.-Y., C.-L. Yang, H.-J. Jen, H. Ogata, and G.-H. Hwang. 2024. "Facilitating Nursing and Health Education by Incorporating ChatGPT into Learning Designs." *Educational Technology & Society* 27 (1): 215–230.
- Chen, Y. 2023. "Educational Reform in the ChatGPT/AIGC Era." *Journal of East China Normal University (Educational Sciences)* 41 (7): 103–116.
- Cheng, M., Y. Zhu, X. Zheng, and S. Huang. 2023. "From Large Space 'Entity' to Large Model 'Virtual': Conception of Future Urban Planning and Management in the Context of Artificial Intelligence." *Architecture & Culture* 8:102–105.
- Dempere, J., K. Modugu, A. Hesham, and L. K. Ramasamy. 2023. "The Impact of ChatGPT on Higher Education." *Frontiers in Education* 8:1206936. <https://doi.org/10.3389/feduc.2023.1206936>.
- Dube, B., S. Mahlomaholo, W. Setlalto, and B. Tarman. 2023. "Creating Sustainable Learning Environments in the Era of the Posthuman: Towards Borderless Curriculum." *Journal of Curriculum Studies Research* 5 (1), Article 1. i–x. <https://doi.org/10.46303/jcsr.2023.1>.
- Gao, J. 2021. *The Expression and Influence of the Differences in Chinese and Thai Educational Concepts in Thai Chinese Teaching*. Xi'an, China: Xi'an Shiyu University.
- Gao, Z., and J. Wang. 2023. "The Dangers and Opportunities of Writing Teaching in the Era of Artificial Intelligence." *Shanghai Education* 11:60–61.

- Graesser, A. C., M. Singer, and T. Trabasso. 1994. "Constructing Inferences During Narrative Text Comprehension." *Psychological Review* 101 (3): 371–395. <https://doi.org/10.1037//0033-295X.101.3.371>.
- Herbrechter, S., I. Callus, M. de Bruin-Molé, M. Grech, C. J. Müller, and M. Rossini. 2020. "Critical Posthumanism: An Overview." In *Palgrave Handbook of Critical Posthumanism*, edited by S. Herbrechter, I. Callus, M. Rossini, M. Grech, M. de Bruin-Molé, and C. J. Müller, 1–24. Springer International Publishing. <https://doi.org/10.1007/978-3-030-42681-1>.
- Hudlicka, E. 2003. "To Feel or Not to Feel: The Role of Affect in Human-Computer Interaction." *International Journal of Human-Computer Studies* 59 (1): 1–32. [https://doi.org/10.1016/S1071-5819\(03\)00047-8](https://doi.org/10.1016/S1071-5819(03)00047-8).
- Jiang, L. 2023. "AI-Driven Educational Reform: The Impact and Prospects of ChatGPT/GPT." *Journal of East China Normal University (Educational Sciences)* 7:143–150.
- John, A. H., M. D. Gregory, L. Chen, and Q. Sheng. 2024. "Learning Strategies: System Synthesis and Conceptual Modeling (Part I)." *Digital Education* 2:85–92. 85–92.
- Kalla, D., N. Smith, F. Samaah, and S. Kuraku. 2023. "Study and Analysis of Chat GPT and Its Impact on Different Fields of Study." SSRN Scholarly Paper 4402499. Social Science Research Network.
- Knuuttila, A. 2024. "The Potential Benefits and Challenges of Adopting AI-Tools Such as ChatGPT in Marketing Communications and Search Engine Optimization."
- Kongthong, A. 2023. "Medical Artificial Intelligence Research Landscape in Thailand: A Bibliometric Analysis." In 2023 18th International Joint Symposium on Artificial Intelligence and Natural Language Processing (ISAI-NLP), 1–6. <https://doi.org/10.1109/ISAI-NLP60301.2023.10354993>.
- Kostikova, I., L. Holubnycha, T. Besarab, O. Moshynska, T. Moroz, and I. Shamaieva. 2024. "ChatGPT for Professional English Course Development." *International Journal of Interactive Mobile Technologies* 18 (2): 68–81. <https://doi.org/10.3991/ijim.v18i02.46623>.
- Li, H., and L. Fan. 2018. "Possible" and "Impossible": A Further Discussion on the Educational Value of Artificial Intelligence Technology: Interpretation of the "Innovative Action Plan for Artificial Intelligence in Colleges and Universities." *Journal of Distance Education* 36 (5): 37–44.
- Li, J. 2020. "Change the Traditional Teaching Model and Build a Smart Learning Environment." *China Journal of Multimedia & Network Teaching* 6:206–208.
- Liu, B., and M. Cui. 2023. "Virtual Digital Man in the ChatGPT Era: The Intermediary of Quasi-Subject to Human Cognition and Behavior." *Journal of Southwest Minzu University (Humanities and Social Sciences Edition)* 11:126–132.
- Liu, S., T. Zhang, X. Zhou, and X. Yang. 2006. "On the Nature and Significance of Academic Exchange." *Science & Technology Association Forum* 8:7–8.
- Liu, Y. 2023. "ChatGPT, which Can Be Used for Writing Papers and Chatting, Has Become Very Popular, and These Art Majors are Even More Popular." *Study Abroad* Z1:68–70.
- Liu, Y., and Z. Lin. 2023. "Data Security Risks and Legal Governance of Generative Big Models." *Cyber Security and Data Governance* 42 (12).
- Lowe, R. J., M. Kiczowski, and X. Lu. 2016. "Native-Speakerism and the Complexity of Personal Experience: A Duoethnographic Study." *Cogent Education* 3 (1): 1264171. <https://doi.org/10.1080/2331186X.2016.1264171>.
- Muangmee, C., S. Kot, N. Meekaewkunchorn, N. Kassakorn, S. Tiranawatananun, and B. Khalid. 2021. "Students' Use Behavior Towards E-Learning Tools During COVID-19 Pandemics: Case Study of Higher Educational Institutions of Thailand." *International Journal of Evaluation & Research in Education* 10 (4): 1166–1175. <https://doi.org/10.11591/ijere.v10i4.21821>.
- Nath, R., and R. Manna. 2023. "From Posthumanism to Ethics of Artificial Intelligence." *AI & Society* 38 (1): 185–196. <https://doi.org/10.1007/s00146-021-01274-1>.
- Peng, J. 2022. "The Impact of New Generation Artificial Intelligence on Higher Education and Risk Prevention." *The Guide of Science & Education* 9:53–54.
- Rao, Y., C. Cheng, and S. Xu. 2023. "Systematic Thinking on the Construction of Skill-Based Society." *Journal of Vocational Education* 8:14–20.

- Rodriguez-Sarmiento, L. F., I. Galpin, and V. Sanchez-Riaño. 2024. "Mapping Brand Territories Using ChatGPT." In *Applied Informatics*, edited by H. Florez and M. Leon, 31–46. Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-46813-1_3.
- Runa, H. J., and R. Martin. 2021. "A Tale of Grappling: Performative Duoethnography as Expanded Methodological Thinking." *Reconceptualizing Educational Research Methodology* 12 (2). <https://doi.org/10.7577/term.4683>.
- Shen, X. 2023. "The Artificial Intelligence of New Generation and the Liberation Man-Philosophical Reflection on the ChatGPT Craze." *Gansu Theory Research* 3:72–81.
- Shi, H. 2020. "Dance and Body in the Context of Artificial Intelligence." *Dance* 2:54–61.
- Stahl, G. K., and M. L. Maznevski. 2021. "Unraveling the Effects of Cultural Diversity in Teams: A Retrospective of Research on Multicultural Work Groups and an Agenda for Future Research." *Journal of International Business Studies* 52 (1): 4–22. <https://doi.org/10.1057/s41267-020-00389-9>.
- Su, H. 2024. "Research on the Teaching of Information Technology Courses in Higher Vocational Colleges Empowered by Artificial Intelligence Technology." *Wencun Reading* 121–123.
- Tao, Y., and W. Chen. 2023. "Posthumanism and the Future of Art Philosophy: The Conflict and Integration of Tradition and Modernity." *Painting & Calligraphy Art* 6:30–34.
- Wan, Y. 2024. *Exploration of Artistic Creation from the Perspective of Artificial Intelligence*. Master. Yantai, China: Yantai University.
- Wang, K. 2024. *Feasibility Analysis of the Application of Artificial Intelligence Technology in College Sports Dance Teaching*, 181–183. Vol. 23. Science & Technology of Stationery & Sporting Goods.
- Wang, K., and F. Jiang. 2023. "Digital Dance Creation and Performance Under the Background of AI Technology." *Humanistic World* 8:52–58.
- Wang, S. 2023a. "The Technical Route, Security Risk and Prevention of ChatGPT's Intervention in Ideological and Political Education." *Shenzhen University Journal (Humanities & Social Sciences)* 40 (2): 153–160.
- Wang, T., and Y. Ren. 2018. "Talent Strategy in the Age of Artificial Intelligence: Interpretation of the 'Innovative Action Plan for Artificial Intelligence in Colleges and universities'." *Journal of Distance Education* 36 (5): 52–59.
- Wang, T., Z. Song, and Z. Jin. 2024. "From Disorder, Subversion to Reengineering." *Structural Transformation of Journalism Through Generative Artificial Intelligence Journal News Research* 15 (2): 7–9.
- Wang, W. 2023. "ChatGPT the Application Value, Potential Risks and Coping Strategies in College Students." *Mental Health Education Journal of Jinzhou Medical University* 21 (5): 78–83.
- Wei, J.-H., A. V. Lacaste, I. N. Rodliyah, H. T. Nguyen, and H.-H. Chuang. 2022. "Teachers' Multicultural Experience, Creative Teaching, and Cultural Intelligence: A Study of Four Asia-Pacific Countries." *Thinking Skills and Creativity* 46:101144. <https://doi.org/10.1016/j.tsc.2022.101144>.
- Wu, T., S. He, J. Liu, S. Sun, K. Liu, Q.-L. Han, and Y. Tang. 2023. "A Brief Overview of ChatGPT: The History, Status Quo and Potential Future Development." *IEEE/CAA Journal of Automatica Sinica* 10 (5): 1122–1136. <https://doi.org/10.1109/JAS.2023.123618>.
- Wu, X. 2024. "Research on Ethical Issues of Moral Enhancement of Artificial Intelligence." *Modern Business Trade Industry* 17:257–259.
- Xie, Y., and X. Wang. 2024. "The Ethical Risks of Artificial Intelligence Emotion and Their Countermeasures." *Studies in Ethics* 1:132–140.
- Xu, D., and X. Duan. 2024. "Artificial Intelligence Fluency: Challenges and Strategies for Higher Education: The Interpretation and Enlightenment of '2024 Educause Horizon Report: Teaching and Learning Edition'." *Open Education Research* 30 (3): 24–36.
- Yun, J., X. Liu, and Y. Liu. 2013. "Computational Modeling of a Social Phenomenon: Evolution of Cultural Identity and Cultural Territory." *Journal of Computer Research and Development* 12:2590–2602.
- Zeb, A., R. Ullah, and R. Karim. 2024. "Exploring the Role of ChatGPT in Higher Education: Opportunities, Challenges and Ethical Considerations." *The International Journal of*

- Information and Learning Technology* 41 (1): 99–111. <https://doi.org/10.1108/IJILT-04-2023-0046>.
- Zeng, D. 2024. “Artificial Intelligence Technology Empowers Research on Dance Performance Art.” *Hebei Pictorial* 14:160–162.
- Zhang, N. 2017. “Education Reform and Development from an International Perspective—A Review of ‘Overview of World Education Reform’.” *Journal of Kaili University* 35 (5): 185–186.
- Zhang, Y., J. You, and J. Wang. 2024. “ChatGPT Empowers Ideological and Political Education in Universities: How is it Possible, Changes in Connotation and Logical Evolution.” *Journal of Shandong Education Institute* 1:9–15.
- Zhao, M., and Y. Xing. 2024. “Study on the Development of Home Community-Based Elderly Care Service Enabled by Artificial Intelligence and Optimization Strategy of Its Ecosystem.” *Social Security Studies* 2:16–25.
- Zheng, Z., Q. Fan, and W. Jia. 2024. “The Triple Illusion and Solution of Artificial Intelligence Technology Empowering Teacher Development.” *China Educational Technology* 7:18–34.
- Zhou, X. 2022. “Research on the Production of Virtual Space of the Chinese Horror Game Paranormal HK.” Master, Lanzhou University.