



Exploring the Attitudes of Higher Vocational College Students toward Artificial Intelligence: a Case Study in China

Wenxi Wang

Guangdong Vocational College of Post and Telecom, No. 191 Zhongshan Avenue West, Tianhe District, Guangzhou City, Guangdong Province, China

1592772832@qq.com

Abstract. This paper investigates the attitudes of higher vocational college students in China towards artificial intelligence (AI). Through a semi-structured interview approach, 20 students from diverse majors were interviewed to delve into their understanding and attitudes (both positive and negative) towards AI. The study finds that students' comprehension of AI is closely tied to their academic majors, with AI majors possessing a comprehensive knowledge of AI technologies, concepts, and applications. In contrast, non-AI majors exhibit a relatively limited understanding. Despite this disparity, higher vocational college students generally hold a positive attitude toward AI, recognising its ability to enhance convenience in daily life, improve efficiency in learning and work, and create new employment opportunities. However, some higher vocational college students also express uncertainty and concerns about AI's impact on their career development. This research provides valuable insights for higher vocational colleges to adjust their educational policies and enhance students' AI literacy in the AI era.

Keywords: Artificial Intelligence, Higher Vocational College, Attitude.

1 Introduction

Over recent years, Artificial intelligence (AI) has evolved considerably, becoming a pivotal force in the 21st century. Its integration across sectors such as healthcare, finance, manufacturing, transportation, and education has markedly enhanced productivity, efficiency and accuracy [1]. Concurrently, AI's rapid proliferation has significantly reshaped the job market, highlighting the importance of upskilling and reskilling, amidst rising concerns of job displacement [2].

As China prepares to integrate new college graduates into its workforce - 11.58 million in 2023 [3] - understanding the AI-driven employment landscape becomes crucial, especially for students from higher vocational colleges. Studies indicate a trend where advanced AI technology favours the hiring of graduates with bachelor's degrees or higher, potentially marginalising higher vocational college students [4].

© The Author(s) 2024

C. Lin et al. (eds.), *Proceedings of the 2024 9th International Conference on Modern Management, Education and Social Sciences (MMET 2024)*, Advances in Social Science, Education and Humanities Research 880, https://doi.org/10.2991/978-2-38476-309-2_73

Higher vocational education, tailored for specific job roles, emphasises practical skills and industries and alignment with enterprises [5; 6]. In the AI era, higher vocational colleges should adapt curricula to foster AI literacy and broaden career prospects for students considering their employment paths [7]. In order to help students adapt to this new technology, some higher vocational colleges have begun to provide students with AI-related learning resources. However, it is unclear whether the approach of these higher vocational colleges is likely to help students; another uncertainty surrounds the attitude these students will have toward the learning resources provided by higher vocational colleges for AI. This is pivotal, as attitudes towards AI significantly influence its acceptance and integration [8]. Understanding students' attitudes toward AI is essential for aligning higher vocational education with AI advancements [9].

Despite these dynamics, the attitudes of higher vocational students toward AI remain understudied. With the ongoing dramatic changes in the job market that artificial intelligence is generating, it is necessary for us to conduct a deeper analysis and thoughtful elaboration of the opportunities, risks and issues that this phenomenon brings to students in higher vocational colleges. Therefore, this paper addresses this gap by exploring the attitudes of higher vocational college students towards AI in China, elucidating the implications for education policy and workforce integration in an AI-centric era.

The research question is: what are the attitudes of Chinese higher vocational college students toward artificial intelligence? Additionally, there are three research directions:

1. Students' understanding of AI: This dimension examines the level of knowledge and awareness that students have about AI, including their familiarity with AI technologies, concepts, and applications.
2. Students' positive attitudes toward AI: This dimension explores the optimistic perspectives that students hold regarding AI, involving their perceptions of the benefits and opportunities that AI presents.
3. Students' negative attitudes toward AI: This dimension addresses the concerns, fears, and scepticism students may have about AI.

2 Literature Review

Studies have delved into university students' attitudes toward AI and its potential impact on their future careers [9; 10]. These studies reveal a dichotomous attitude among students towards AI. On the one hand, students recognise AI's convenience in daily life and its promising future prospects [11], for instance, university students from nine dental universities in Turkey indicated a general lack of in-depth knowledge about AI among students, yet a willingness to learn more and an optimistic outlook on its potential to positively influence their future dental careers. Similarly, Mousavi et al. (2023) conducted a systematic review of 38 studies involving healthcare college students, noting predominantly positive attitudes toward AI's role in clinical professions and its future utility [12].

Conversely, apprehension arises when considering AI's impact on personal professional development and career trajectories. Sit et al. (2020) explored this through a survey at 19 UK medical schools; they found substantial apprehension among medical

students regarding the use of AI in future practice [13]. Furthermore, nearly half of these university students expressed uncertainty about pursuing careers in their current fields of study due to the influence of AI. Another systematic review by Mousavi et al. (2023) highlighted that 24% of students perceive AI as a potential threat to the medical field, fostering a negative attitude towards it [12]. These findings underscore the mixed emotions AI evokes in students, ranging from optimism to concern and uncertainty.

Moreover, the current cohort of college students, predominantly from Generation Z (born in the late 1990s to early 2000s), exhibit unique characteristics in this context [10]. Known for their tech-savviness and open-mindedness, this generation has introduced novel behaviours and new ideas to the workplace. As they continue to transition into adulthood and the workforce during the Fourth Industrial Revolution, their interaction with AI, a key emerging technology, is poised to have profound and varied impacts [14]. This demographic is particularly significant as they represent the new wave of professionals in an AI-integrated world.

Nevertheless, some studies reveal a superficial understanding of AI among college students, with limited opportunities for AI training in the classroom at universities [9; 14; 15]. Additionally, some university teachers possess minimal AI knowledge and, consequently, face challenges in integrating AI-related skills into their teaching practice [16]. In fact, the attitude of college students towards the application of AI and the impact of this technology on the employment of college students should be paid attention to, especially those in higher vocational colleges.

Higher vocational education differs fundamentally from general higher education, due to its training goals, curriculum design, student demographics, and vocational orientation [5]. These institutions primarily recruit students interested in acquiring specific vocational skills. This kind of college mainly trains technical and vocational skills to fulfil the needs of the social market so that students can directly enter the workplace after graduation [6]. In terms of curriculum setting, higher vocational colleges focus more on practical applications, including technical training, practical operation and professional literacy courses, emphasising their connection with industry [5]. This approach blends academic and practice-based skills, preparing students for real workforce entry [17].

However, the swift advancement of technologies like AI poses new challenges. The automation of tasks in various fields can occur abruptly, potentially rendering certain job-specific skills obsolete [4]. Students from higher vocational colleges, whose curricula are heavily specialised, may struggle to adapt to this rapidly evolving technological landscape, facing employment difficulties as a result. Consequently, the job market demands increasingly higher levels of versatility and skill diversity from higher vocational college graduates [18]. This scenario places heightened employment pressures and job challenges on vocational college students compared to their counterparts from general colleges or universities.

Despite the profound implications of AI for the job market, existing research predominantly focuses on students from general higher education, with the attitudes of higher vocational college students often overlooked. This study, therefore, seeks to bridge the research gap by investigating higher vocational college students' attitudes towards AI.

3 Methodology

3.1 Context

This study is conducted to gain insights into the attitudes of students from a higher vocational college in China towards AI; this is important because China is rapidly emerging in the development and application of AI technologies, significantly impacting the future labour market and educational systems. The uniqueness of higher vocational colleges lies in their close alignment with industry needs, emphasising practical abilities and skill development to swiftly adapt to the unpredictable job market. Particularly in China, higher vocational colleges not only emphasise the learning of theoretical knowledge but also place a greater focus on the cultivation of practical skills and opportunities for enterprise internships, ensuring students can directly contribute to the industry upon graduation, especially in high-tech fields like AI. The chosen institution for this study is located in Guangdong Province, a forefront of economic and technological advancement in China. The college is renowned for its specialised education in information and communication technologies, providing an ideal case for this study.

3.2 Participants

Table 1. Interviewees' demographic information.

Interviewees	Gender	Age	Major
Student 1 (S1)	male	22	Financial services and management
Student 2 (S2)	female	22	Financial services and management
Student 3 (S3)	male	21	Financial services and management
Student 4 (S4)	female	23	Business administration
Student 5 (S5)	male	21	Business administration
Student 6 (S6)	female	22	Marketing
Student 7 (S7)	female	21	Marketing
Student 8 (S8)	female	20	Mobile commerce
Student 9 (S9)	male	21	Mobile commerce
Student 10 (S10)	female	23	Modern logistics management
Student 11 (S11)	male	23	Modern communication technology
Student 12 (S12)	male	22	Modern communication technology
Student 13 (S13)	male	23	Modern communication technology
Student 14 (S14)	female	22	Software technology
Student 15 (S15)	female	22	Software technology
Student 16 (S16)	male	22	AI technology application
Student 17 (S17)	male	21	AI technology application
Student 18 (S18)	male	23	AI technology application
Student 19 (S19)	male	22	Modern mobile communication application
Student 20 (S20)	male	21	Modern mobile communication application

The study interviewed 20 students with a balanced gender ratio, consisting of 12 males and 8 females, aged between 20 and 23, coming from various professional backgrounds in their first to third years, including Financial services and management (3), Business

administration (2), Marketing (2), Mobile commerce (2), Modern logistics management (1), Modern communication technology (3), Software technology (2), AI technology application (3) and Modern mobile communication application (2). The data collection is shown in Table 1. Such a participant composition helps us to comprehensively understand the cognitive and attitudinal differences towards AI among higher vocational college students from different professional backgrounds.

3.3 Data Collection

Semi-structured interviews were used to capture the true views of higher vocational college students on AI technology. The interview questions corresponded to the research questions in this paper, and the reliability and validity of these questions were reviewed by experts. Before the formal interview, two students were invited to conduct a preliminary test on the interview questions to ensure their applicability. The interview questions were divided into three parts: higher vocational college students' understanding of AI, their positive attitude and negative attitude toward AI.

Under the premise of maintaining the ratio of male to female and the proportion of majors, 20 higher vocational college students from different majors were randomly selected and the informed consent form was distributed. The interviews were conducted in Chinese and recorded by the voice recorder.

3.4 Data Analysis

The recordings were transcribed into text and translated into English; an educational expert reviewed the content to ensure accuracy. Thematic analysis [19] was used to identify, analyse, and report patterns within the data. The analysis revealed three themes, which will be specifically analysed in the results section of this paper.

4 Results

4.1 Higher Vocational College Students' Understanding of AI

Higher vocational college students' understanding of AI varied significantly between those specialising in AI and those in other fields, reflecting a diverse range of knowledge and applications. The students majoring in AI posed a comprehensive and profound grasp of the subject and proved capable of utilising a relatively wide array of AI applications to solve problems. Their deep understanding enabled them to effectively employ these technologies in practical situations, highlighting their specialised education and training in the field.

In contrast, higher vocational college students not specialising in AI were limited in their awareness of AI to applications that were widely promoted and used in mainland China, such as Baidu's Ernie Bot, smartphone voice assistants, and facial recognition applications. These students had almost never received training specifically related to AI, and their courses rarely included education or practical teaching related to AI. Most

students were not confident about talking about AI. One of the students, who studied business administration (S4), said: "I don't know much about AI. I only used Baidu's Ernie Bot." Another student majoring in logistics management (S10) stated: "All I know about AI is just from online media." Moreover, most non-AI majors reflected a common phenomenon: "We did not learn AI in college classes, no teacher talked about it." However, there were exceptions where some teachers integrated AI applications into their curriculum, such as students in mobile commerce (S8 and S9) who were introduced to generation applications. As Student 8 introduced, "In mobile commerce courses, one of our teachers showed us how AI can be used to generate graphics and text, which was quite interesting."

Nearly all interviewees used AI applications to aid in academic assignments or work-related tasks, with Baidu's Ernie Bot or Chat GPT being the most commonly utilised software. One participant stated "Personally, I find Baidu's Ernie Bot very useful. I use it a lot now. It provides a comprehensive set of references and ideas that help me accomplish some tasks more efficiently." (S3) However, the interviews demonstrated that most of the participants had only used Baidu's Ernie Bot, a popular and free AI software in China, and did not know much about other AI tools.

4.2 Higher Vocational College Students' Positive Attitudes toward AI

Higher vocational college students generally held a positive attitude toward AI, acknowledging its significant benefits to both society and their personal lives. They appreciated AI's role in enhancing the convenience of social life through various applications such as smart homes, autonomous driving, and smart offices, which significantly improved living environments. In the words of one student majoring in Modern communication technology (S11): "We can see how AI was making our lives easier with things like smart homes and autonomous driving." Additionally, students highly valued AI's impact on increasing efficiency in learning and work, noting that it saved time and energy, thereby reducing the burden of human labour and making life more enjoyable. "AI really helped us in our studies and work. It allows us to solve problems faster and easier, which is great," remarked a student majoring in Modern communication technology (S13).

The students also emphasised the advantages of AI in enhancing problem-solving capabilities, providing quicker access to solutions, new ideas, and inspiration, with more accurate and organised outcomes. As Student 1 (majoring in Financial services and management) articulated, "AI really helped us think through problems and find solutions faster. It gave us new ideas and made things more organised." The development of AI was seen as a creator of new opportunities, paving new paths for individual career trajectories and entrepreneurial concepts, thus promoting personal and professional growth. Student 3 recommends that AI like Baidu's Ernie Bot can provide comprehensive employment guidance or advice on further studies tailored to each student's specific situation, "which is quite meaningful for me."

Furthermore, the students demonstrated a proactive attitude towards learning about AI, with many expressing a willingness to master more applications if given the oppor-

tunity. However, they also believed that the depth of learning should align with individual interests, professional needs, and career planning: "I'm eager to learn more about AI, but I think it's important to focus on areas that align with my interests and career goals."(S12)

In particular, students specialising in AI emphasised the technology's potentially huge impact on society and human life. Student 17, who majored in AI technology application, remarked: "I believe it's crucial for all higher vocational college students to delve deeply into AI knowledge to prepare for the future demands of a society increasingly driven by AI and to contribute to the country's technological development."

4.3 Higher Vocational College Students' Negative Attitudes toward Artificial Intelligence

Students' negative attitudes toward AI mainly revolved around concerns over its potential adverse effects. Most students believed that AI had made humans lazier and overly dependent on AI technology for problem-solving, which could negatively impact human innovation. For example, higher vocational college students might rely on AI applications like Baidu's Ernie Bot and plagiarise work from AI when completing assignments and graduation theses, thereby reducing their own opportunities for critical thinking and innovation. Student 9 recalled, "Some classmates would just use AI to generate assignments without really thinking about them, and then submit them to the teacher without much effort."

Additionally, some higher vocational college students acknowledged that AI's limitations could not be overlooked. They argued that AI could not fully replace human thinking and inspiration, serving only as an auxiliary tool. In areas such as customer service, personalised and specific treatment methods were considered more appropriate, whereas current AI services, like voice intelligent customer service and e-commerce intelligent customer service, could not perfectly replace human services. As student 6 (a marketing major) put it, "Although intelligent customer service can save a lot of manpower, I think people still prefer human customer service a little more." They also noted that AI's answers were not always accurate and may sometimes lead to program errors, causing misinformation. Reflecting on this, Student 4, who majored in business administration, remarked, "I feel like current AI technology isn't particularly perfect. Sometimes they give us wrong or false information, which could lead to mistakes in our decision-making."

Some higher vocational college students expressed concerns that the development of AI could lead to a reduction in certain job positions. They believed that AI would exacerbate future market competition, reduce their employment opportunities, and increase unemployment pressure. During the interviews, students in the fields of mobile commerce (S8 and S9) and computer science (S14 and S15) exhibited notably greater stress regarding this issue. Additionally, the widespread application of AI increased the risk of infringing on personal privacy and intellectual property rights across various professional domains. This risk is stated by student 8, who is majoring in mobile commerce, "I am particularly worried about copyright issues because the designs I create,

such as images or videos, could easily be stolen and utilised by artificial intelligence without anyone acknowledging me as the designer.”

5 Discussion

5.1 Understanding of AI among Higher Vocational College Students

This investigation into the understanding of AI among higher vocational college students has uncovered a significant correlation between students' level of comprehension and their academic majors. On the one hand, students majoring in AI exhibit a comprehensive and in-depth understanding of AI technologies, concepts, and applications, indicating a high degree of AI knowledge. On the other hand, those not majoring in AI have a relatively restricted understanding. They typically encounter AI through social media and daily life applications such as Baidu's Ernie Bot, smartphone voice assistants, and face recognition technologies. Regrettably, these non-AI major students seldom receive specialised training or practical instruction related to AI within their curriculums. This clearly highlights the deficiency of AI education in higher vocational college curriculums for non-AI majors.

This finding is echoed in several studies. For example, Yüzbaşıoğlu (2021) pointed out that although most college students possess some knowledge of AI, their understanding of fundamental AI principles is limited [11]. Another study showed that among surveyed university students, a majority (51.69%) considered their understanding of AI as "average," and only a small minority (1.50%) regarded themselves as highly knowledgeable about AI [10]. Sit et al. (2020) further observed that while British medical students recognised the importance of AI, their comprehension and educational needs in this field remain unmet [13]. These phenomena not only reflect a deficit in AI education within general university education but also mirror the current situation in higher vocational colleges.

In light of these observations, it becomes evident that future higher education, including higher vocational colleges, must prioritise the enhanced integration of interdisciplinary AI knowledge. This is crucial for elevating the overall AI literacy among college students. By doing so, higher vocational colleges could bridge the gap in AI understanding between different majors and ensure that all students are better equipped to navigate the era of rapid technological advancement.

5.2 Positive Attitudes of Higher Vocational College Students towards AI

This study reveals that higher vocational college students generally hold positive attitudes towards AI, perceiving AI technologies as significantly enhancing convenience for society and individuals. Specifically, interviewed students praise AI applications in smart homes, autonomous driving, and intelligent offices, believing these technologies have dramatically improved living standards and work efficiency. In academic pursuits and professional endeavours, higher vocational college students utilise AI tools (such as Baidu Ernie Bot and Chat GPT) to assist in completing tasks; in this context, students view AI as a means to save time, reduce human workload, and make learning and work

more enjoyable and stress-free. Moreover, higher vocational college students recognise the positive impact of AI on personal career development, believing that AI advancements might create new job opportunities and entrepreneurial possibilities, fostering personal growth and professional advancement. Many higher vocational college students express a desire to learn more about AI applications and hope to integrate AI knowledge with their personal interests and career plans.

These positive attitudes reflect the younger generation of higher vocational college students' embrace and anticipation of emerging technologies, as well as their aspiration to leverage AI to enhance their competitiveness. This conclusion aligns with Jeffrey's (2020) research findings, which explored university students' perceptions of AI to understand how the younger generation views this nascent technology. His study showed that most university students strongly believe in AI's positive societal impact [14]. Another study also found that a majority of young adults (under 35 years old) hold optimistic attitudes towards AI, considering it a force for positive change and efficiency enhancement [20]. Yüzbaşıoğlu's (2021) research similarly highlights that most university students surveyed emphasised the inclusion of AI-related content in undergraduate education, mirroring the higher vocational college students' eagerness to learn more about AI applications [11]. Additionally, a survey of undergraduate students indicated that over half expressed a willingness to learn AI skills to facilitate deeper research and efficiency improvements in their majors [21]. These research outcomes suggest that both higher vocational college students and undergraduate students share positive attitudes towards the development of AI and are inclined to learn this technology to bolster their competitive edge.

5.3 Negative Attitudes of Higher Vocational College Students towards Artificial Intelligence

Despite the prevalent positive stance among higher vocational college students towards AI, their concerns cannot be overlooked. Firstly, participants widely expressed anxiety that AI might foster laziness and excessive technological dependence among humans, diminishing autonomous thinking and innovation capabilities. Particularly in academic assignments and thesis writing, participants noted how some students might resort to AI-assisted plagiarism, thereby compromising critical thinking and originality. Secondly, higher vocational college students acknowledge AI's limitations, believing that it cannot fully replace humans in certain domains, such as customer service, due to its lack of personalised care and creativity. Concurrently, the widespread application of AI technology has sparked concerns among higher vocational college students regarding personal privacy and intellectual property protection. Similarly, a study by Fotea et al., (2019) found that undergraduate students exhibit worries about AI's potentially negative impacts in the professional realm, including data and privacy protection [10]. These negative attitudes reflect the dialectical thinking of the younger generation of higher vocational college students when confronting this emerging technology.

Furthermore, higher vocational college students worried that AI's development may lead to the elimination of certain job positions, intensifying competition and unemploy-

ment risks in the future job market. In line with this sentiment, researchers have discovered that interviewed finance majors hold relatively pessimistic views about the job market, believing that AI poses a high risk of massive job losses in the financial sector [22]. These worries are borne out by a study showing that AI could either support or replace repetitive tasks like administrative work or data processing, posing a threat to low-skilled jobs [20]. The World Economic Forum's report indicates that over 4.7 million routine white-collar office jobs could be lost due to AI [20]. Additionally, research by Yang (2023) demonstrated that corporate digital transformation and the adoption of new technologies like AI significantly increase the proportion of employees with bachelor's degrees or above, promoting employment for high-skilled labour while inhibiting low-skilled labour [4].

These research findings underscore the need to address the negative attitudes of higher vocational college students towards potential job losses, as they may face more pressing pressures and challenges than undergraduate students. Consequently, while promoting AI education in higher vocational colleges, it is imperative to guide students in correctly perceiving AI's pros and cons, fostering their critical thinking, innovation capabilities, and resilience to future changes in the job market.

6 Limitations and Future Studies

This study does have its limitations, for example, the sample size is relatively small as it is limited to 20 higher vocational college students from one higher vocational college; this may limit the generality of the findings. In future research, the sample size can be increased and more quantitative data can be collected by including students from multiple higher vocational colleges in different regions, studying different majors. This may give us a fuller picture of higher vocational students' attitudes toward AI and a more accurate picture of their views.

7 Conclusion

This study systematically investigates the understanding and attitudes towards AI among 20 students from various majors in a higher vocational college in China, employing a semi-structured interview approach. The research reveals notable differences in students' perceptions of AI, particularly between those majoring in AI and those in non-AI fields. Higher vocational college students specialising in AI demonstrate a comprehensive and profound understanding of AI technologies, while non-AI majors primarily acquire limited knowledge through social media and daily life applications such as Baidu's Ernie Bot and smartphone voice assistants, with minimal exposure to dedicated AI coursework.

Overall, higher vocational college students hold positive attitudes towards AI, acknowledging its significant contributions to enhancing living and work efficiency in areas like smart homes, autonomous driving, and intelligent offices. However, they also express concerns regarding the potential negative impacts of AI, including the diminishment of human creativity, intensified job market competition, and privacy violations.

The study underscores the importance of strengthening interdisciplinary integration of AI education within higher vocational colleges to elevate students' AI literacy across the board, preparing them for the increasingly intelligent society.

References

1. Mei Xue, Xing Cao, Xu Feng, Bin Gu, and Yongjie Zhang. **2022**. Is College Education Less Necessary with AI? Evidence from Firm-Level Labor Structure Changes. *Journal of Management Information Systems*, 39(3), 865-905.
2. Keng L. Siau and Yizhi Ma. 2018. Artificial intelligence impacts on higher education. In Thirteenth Annual Midwest Association for Information Systems Conference (MWAIS 2018), At St. Louis, Missouri. Ministry of Education. Accurately help college graduates find employment, 14 July, **2015**.
http://www.moe.gov.cn/jyb_xwfb/xw_zt/moe_357/jjyzt_2022/2022_zt18/mtbd/202307/t20230714_1068906.html.
3. Yang Liu. **2023**. The employment effect of enterprise digital transformation: Empirical evidence from Chinese listed companies.
4. Spöttl, G. **2013**. Permeability between VET and higher education—a way of human resource development. *European Journal of Training and Development*, 37(5), 454-471.
5. Xu Ruohan. **2021**. Research on the structure, current situation and training countermeasures of vocational college students' professional literacy in the era of artificial intelligence.
6. Jinhua Ma. **2019**. The challenge and development of vocational education under the background of artificial intelligence. In 2019 5th International Conference on Humanities and Social Science Research (ICHSSR 2019) (pp. 522-525). Atlantis Press.
7. Astrid Schepman and Paul Rodway. **2020**. Initial validation of the general attitudes towards Artificial Intelligence Scale. *Computers in Human Behavior Reports*, 1, 100014.
8. Cristina Almaraz-López, Fernando Almaraz-Menéndez, and Carmen López-Esteban. **2023**. Comparative Study of the Attitudes and Perceptions of University Students in Business Administration and Management and in Education toward Artificial Intelligence. *Education Sciences*, 13(6), 609.
9. Silvia Fotea, Ioan Fotea and Emanuel Țundrea. **2019**. Artificial Intelligence In Education-Romanian Students' Attitudes Toward Artificial Intelligence And Its Impact On Their Career Development. In ICERI2019 Proceedings (pp. 9330-9338). IATED.
10. Emir Yüzbaşıoğlu. **2021**. Attitudes and perceptions of dental students towards artificial intelligence. *Journal of Dental Education*, 85(1), 60-68.
11. Seyyede F. Mousavi Baigi, Masoumeh Sarbaz, Kosar Ghaddaripouri, Maryam Ghaddaripouri, Atefah sadat Mousavi, and Khalil Kimiafar. **2023**. Attitudes, knowledge, and skills towards artificial intelligence among healthcare students: A systematic review. *Health Science Reports*, 6(3), e1138.
12. Cherry Sit, Rohit Srinivasan, Ashik Amlani, Keerthini Muthuswamy, Aishah Azam, Leonardo Monzon, and Daniel Poon. **2020**. Attitudes and perceptions of UK medical students towards artificial intelligence and radiology: a multicentre survey. *Insights into Imaging*, 11, 1-6.
13. Thomas Jeffrey. **2020**. Understanding College Student Perceptions of Artificial Intelligence. *Journal of Systemics, Cybernetics and Informatics*, 18(2), 8.
14. Daniel Pinto dos Santos, Daniel Giese, Sebastian Brodehl, Seung-Hun Chon, Wieland Staab, Robert Kleinert, David Maintz, and Bettina Baeßler. **2019**. Medical students' attitude towards artificial intelligence: a multicentre survey. *European Radiology*, 29, 1640-1646.

15. Ayoub Kafyulilo, Petra Fisser, and Joke Voogt. **2016**. Factors affecting teachers' continuation of technology use in teaching. *Education and Information Technologies*, 21, 1535-1554.
16. Egle Gedrimiene, Anni Silvola, Jouni Pursiainen, Jarmo Rusanen, and Hanni Muukkonen. **2020**. Learning analytics in education: Literature review and case examples from vocational education. *Scandinavian Journal of Educational Research*, 64(7), 1105-1119.
17. Feng Hui. **2020**. The impact of artificial intelligence on vocational education and counter-measures. In *Journal of Physics: Conference Series* (Vol. 1693, No. 1, p. 012124). IOP Publishing.
18. Virginia Braun and Victoria Clarke. **2006**. Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3, 77-101. <https://doi.org/10.1191/1478088706qp063oa>.
19. Abdul Rauf, Muhammad Ashfaq, Rashedul Hasan, and Md Abu Manju. **2021**. A comparative study on the impact of artificial intelligence on employment opportunities for university graduates in Germany and the Netherlands: AI opportunities and risks. *International Journal of Environment, Workplace and Employment*, 6(3), 185-204.
20. Yue Li and Yong-Jik Lee. **2024**. Exploring Korean University Students' Perceptions of Artificial Intelligence (AI) Education. *Journal of the Korea Academia-Industrial cooperation Society*, Korea Science25(3), 251-260.
21. C. Nie and Y. Zhang. **2019**. An empirical study on college students' expectations and attitudes towards the impact of artificial intelligence on employment. *Today's Science*, 4, 14.
22. Wang, T., Lund, B. D., Marengo, A., Pagano, A., Mannuru, N. R., Teel, Z. A., & Pange, J. **2023**. Exploring the potential impact of artificial intelligence (AI) on international students in higher education: Generative AI, chatbots, analytics, and international student success. *Applied Sciences*, 13(11), 6716.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

