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# Ethical Dilemmas and Countermeasures of University Teachers in the Application of Artificial Intelligence in Education

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**Abstract:** In recent years, society has gradually entered the era of intelligence, and artificial intelligence has affected all aspects of society. Among them, the integration of artificial intelligence and education has had an important impact on the field of education, but it also brings a series of ethical issues and risk challenges. If it is not restricted and standardized, it will violate the rights of various subjects in the field of artificial intelligence education. As an important place for the application of artificial intelligence, universities are facing new ethical challenges. This paper starts with university teachers, analyzes their ethical responsibilities and ethical dilemmas in artificial intelligence education, and puts forward corresponding measures. From the national level, we should promote the construction of relevant laws and regulations; From the technical level, the ethical consciousness and moral level of technical personnel should be improved; From the social level, we should improve the ethical consciousness of the public.

**Keywords:** University teachers; Educational application of artificial intelligence; Ethical dilemma

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## 1. Introduction

Since the 21st century, intelligent technology has continuously innovated and deepened, and promoted the optimization and upgrading of education and teaching environment. Many colleges and universities actively respond to national policies to promote the development of intelligent education in schools, and colleges and universities have become key places for the application of artificial intelligence in education. Therefore, this paper starts with college teachers, discusses what ethical problems and ethical risks college teachers will face in the context of artificial intelligence education, and proposes countermeasures to better achieve positive interaction between artificial intelligence and college teachers and promote the sustainable development of artificial intelligence education.

## 2. The ethical connotation of the educational application of artificial intelligence

The ethics of the application of artificial intelligence education can be understood as the moral relationship between the various subjects involved in artificial intelligence education and the rules that should be observed. Wang pointed out that "teacher + artificial intelligence" has become the new "subject" of teachers' teaching ethics, and discussed the essence of teachers' teaching ethics in the context of artificial intelligence education from a static and dynamic perspective<sup>[1]</sup>. Li Xiaoyan proposed that the application ethics of artificial intelligence in education belongs to the research category of educational ethics, and its research process should be conducted from the perspective of "human" to determine human behavior in the application of artificial intelligence<sup>[2]</sup>. Therefore, The ethics of the application of artificial intelligence in education can be interpreted as the moral relations and rules between people, people and technology involved in the application of artificial intelligence in the ecological environment of artificial intelligence education.

## 3. Ethical risks of college teachers in artificial intelligence education

### 3.1 Privacy breach

Educational data ethics is a rational review of the moral beliefs and behavioral norms that should be upheld in the generation, collection, storage, analysis and utilization of educational data. With the rapid progress of technology and its deep integration with education, people will have the unprecedented ability to observe teachers and learners in an all-round and in-depth way. First of all, from the step of data collection, teachers' educational background, educational qualification, teaching data, student evaluation and feedback, teaching interaction data and training and development data will be collected in the data network. Secondly, in the data storage stage, there will be the risk that data may be leaked or mined, and individuals will lose the ownership of their own data. Finally, the leaked data will be reused. Whether it is the privacy

of teachers or students, it will bring great harm. For teachers, data privacy breaches will affect the right to development, intellectual property rights, academic freedom and even physical and mental health and personal safety; Students' right to privacy, development and learning will also be infringed.

### **3.2 Algorithm bias**

At present, AI mainly learns and trains through machine learning and deep learning algorithms, and makes decisions and judgments based on historical data recorded in the past. It is precisely because of the judgment and decision based on historical data that artificial intelligence may cause the problem of algorithmic bias, for example, for students, the data of girls or other vulnerable groups will be labeled discriminatory, and the educational data of students with slower learning progress will be labeled discriminatory. From a teacher's perspective, there are also many algorithmic biases. For example, gender bias. Some algorithms will have gender bias when evaluating teachers. For example, male teachers and female teachers will be treated unfairly in the evaluation; In addition, the algorithm may discriminate based on the subject the teacher teaches, for example, the algorithm may value teachers in the natural sciences more than those in the humanities.

### **3.3 Technology dependence**

Artificial intelligence application and education can greatly reduce the burden on teachers, but if teachers gradually become dependent on technology, it will also raise ethical issues. For example, technology can help teachers automate grading and personalize student learning, but overuse can create a degree of dependence on teachers. Some teachers may fall into the "technology-only theory", believing that most problems in teaching can be solved by technology, which will lead to frequent "technology abuse"

### **3.4 Lack of subjectivity**

The combination of artificial intelligence and education has made great changes in the ecological environment of education, and the integration of virtual and reality has gradually deepened, forming a new digital space. In this digital space, as technology acts as an intermediary, the communication between teachers and students is easily alienated into the interaction between symbols, that is to say, under the influence of technology, teachers become a link in the process of technology application. Under this background, teachers will inevitably have doubts about their own identity and their own authority will be questioned, which will cause the ethical risk of lack of subjectivity. For example, it may cover up the personal ability, knowledge and personality of teachers and weaken the subjective initiative of teachers<sup>[3]</sup>.

## **4. Explore the path of risk avoidance**

In the face of the ethical risks caused by artificial intelligence education, in addition to the teachers themselves need to take responsibility and deal with it, the country, society and relevant technical personnel should take actions and jointly explore how to avoid risks.

### **4.1 Promoting the construction of relevant laws and regulations**

Although the research on artificial intelligence ethics has reached a general consensus and been applied to practice, the normative role of artificial intelligence ethics is still limited. The ethical level requires more internal moral constraints of individuals, and the moral bottom line and moral standards between individuals are also different, so in the field of artificial intelligence education, external legal constraints are also needed, which is a more coercive measure.

At present, artificial intelligence is still in the stage of weak artificial intelligence and does not have subjectivity, so it does not have the qualification of legal subject<sup>[4]</sup>. Based on Yu Yafeng's review of foreign researches on artificial intelligence law, this paper holds that the infringement of artificial intelligence must clarify the legal responsibility of the relevant subject. The subjects to be undertaken are designers and users, which in the field of education are developers of educational software or platform and universities or teachers. When infringement occurs, if it is due to the designer's design loophole or algorithm error, the designer shall be responsible for the infringement; If it is due to improper use by universities or teachers, then the universities or teachers will be responsible.

### **4.2 Raise public awareness of education ethics**

If a technology has a negative impact on education, hinders the progress of education, and even leads to the regression of education due to technological alienation, then we should examine the technology more; However, if the ethical rules restrict the development of education, then the educational ethics will become the fault party leading to the conflict, we must perfect or innovate the existing educational ethics. In short, the public should continue to learn, improve their ethical awareness, digital literacy, etc., so that they can achieve synchronous development with The Times.

### **4.3 Improve the ethical consciousness and moral level of technical personnel**

First, more education and publicity should be given to technical personnel to make them aware of the potential ethical issues and risks of AI technology. Secondly, they should be provided with a framework of ethical guidelines, including privacy protection, transparency and other principles and requirements, and technicians should consciously follow the ethical guidelines; Finally, a reward and incentive system

should be established to encourage technical personnel to participate in the research of avoiding ethical risks, so as to enhance their attention to ethical issues.

## 5. Conclusion

The application of artificial intelligence in education is for the good development of education. As the key personnel using technology, teachers will inevitably face a lot of ethical dilemmas and challenges, but teachers still need to continue to learn and progress, national policies continue to improve, and social moral level continues to improve. Only in this way can artificial intelligence and education achieve a better interaction.

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