

# The Influence of Information Technology on College Education and Teaching

Xin Chang<sup>1,2,\*</sup>

<sup>1</sup>Jining Normal University, Inner Mongolia, China

<sup>2</sup>Philippine Christian University Center for International Education, Manila, 1004, Philippines

\* Corresponding author: Chang Xin(Email:taotao-09@163.com)

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**Abstract:** With the rapid development of modern science and network technology, information technology has been more and more used in college classrooms, and has had a profound impact on the teaching of various professional courses. Especially in the context that the epidemic has swept the world and students cannot enter offline physical classroom, information technology plays a vital role in teaching classroom.

**Keywords:** College education, Information technology, Teaching model.

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## 1. Introduction

With the development of the times, under the requirements of information technology and the training of talents in the new curriculum standard, the traditional classroom teaching mode in China has undergone tremendous changes, especially in the developed areas, education is becoming more and more networked, personalized, virtual and international. On April 13, 2018, China issued the Education Informatization 2.0 Action (hereinafter referred to as the Action), which is a key measure to fully stimulate the impact of information technology revolution and an effective way to accelerate the realization of education modernization. The Action mentioned that we should continue to promote the deep integration of information technology and education and teaching, and build a learning society where everyone can learn, learn everywhere, and learn from time to time. In February 2019, China Education Modernization 2035 was printed and distributed. It was mentioned in the article that we should accelerate the educational reform in the information age, build an intelligent campus, and build an integrated intelligent teaching, management and service platform as a whole. We should use modern technology to accelerate the reform of talent training mode and realize the organic combination of large-scale education and personalized training. In 2020, since the outbreak of the global COVID-19 epidemic, in response to the call of the country to "suspend classes and schools", information technology has been brought into full play in classroom teaching. Even many government agencies, enterprises and public institutions have turned offline work to online work, and information technology is quietly infiltrating into our study, work and life.

## 2. The Influence of Information Technology on College Education and Teaching

With the rapid development of Internet of Things technology, 5G technology, artificial intelligence, cloud computing and other technologies, as well as the requirements of the talent training program of the new curriculum standard, information technology has been widely used in college education and teaching, especially as a normal university, the

country has put forward higher requirements for talent training of normal students.

### 2.1. The Influence of Information Technology on Classroom Teaching Mode

With the requirements of the new curriculum standard, it can be seen that the requirements for teachers' teaching quality and teaching mode are gradually improving. Teachers are required not only to have profound professional knowledge, but also to have a novel classroom teaching mode that can attract students. In the traditional teaching mode, teachers are the main body, and teachers and students learn knowledge at the same time and space. The classroom teaching under the information technology can be realized at any time and anywhere without the limitation of time, space and region, and the content of learning can be selected and repeated at will; Get rid of the limitation of a single teacher, and hire experienced teachers or experts to give online lectures; Not limited by the class system, it can accommodate more students into the classroom; The whole staff can participate in the interactive link of question and answer to improve the students' participation and interaction in the classroom; Teachers can assign tasks such as preview content, homework, examination, attendance, homework correction and examination paper correction online; Students can be grouped according to their individual differences, hobbies and other aspects to learn, discuss and complete tasks, and finally display and report results to achieve targeted and accurate teaching.

### 2.2. The Influence of Information Technology on Classroom Teaching Environment

The information technology has changed the teaching mode in the college classroom from teacher oriented to student oriented and learning to promote teaching, thus improving the students' learning initiative, enthusiasm and learning efficiency. Respecting students' individual differences, providing personalized teaching environment, allowing students to have more space for independent learning, and further highlighting students' dominant position in classroom teaching. For example, when introducing the definition of limit in the classroom teaching of Advanced Mathematics, teachers can visually demonstrate the specific

situation of  $\lim_{n \rightarrow \infty} t$  when the variable  $n \rightarrow \infty$  is displayed through information technology. Students can think while watching, put forward problems, and then solve them through group discussion. Let students, as teaching subjects, fully immerse themselves in the teaching classroom environment to find problems, explore problems and solve problems, and draw conclusions.

### **2.3. Journal style The Influence of Information Technology on Teaching System**

Recently, more and more colleges and universities have formulated relevant systems to clarify the flexibility of the school system. Students spend 3-8 years in school, and only need to complete the required credits for graduation within 8 years. During this period, students can learn the subjects they are interested in across majors and departments according to their own interests and hobbies, which fully reflects the precise teaching mode of taking students as the main body, respecting their individual differences, and teaching students in accordance with their aptitude. If information technology is not used in the implementation of the system, the huge workload is almost an insurmountable gap.

### **2.4. The influence of information technology on teachers' teaching workload**

In the traditional teaching classroom, teachers need to write on the blackboard, especially in science majors, and also involve many complex graphics, which will take up a lot of time and energy of teachers, without paying more attention to knowledge teaching and observing students' knowledge mastery. Teachers who use information technology to teach can spend more time on teaching difficult knowledge, classroom interaction and answering questions, which not only reduces teachers' teaching workload, but also improves the quality of classroom teaching, and students' understanding of knowledge points is more visual and intuitive.

### **2.5. The Influence of Information Technology on Student Management**

Information technology is a scientific and effective means of student teaching management. By means of information technology, teachers can carry out work on students' attendance, asking for leave, eliminating leave, comprehensive evaluation, file management, etc. Apartment management personnel can carry out health evaluation, equipment maintenance and other work on the dormitory. When the epidemic is sweeping the world, information technology plays a decisive role in student management. During the epidemic, students' daily health clocking, daily reports, psychological counseling, theme class group activities and even the acquisition of streaming information can be easily and accurately completed by means of information technology.

### **2.6. The Impact of Information Technology on Employment**

The employment of graduates is the top priority in the work of colleges and universities. "For whom to train people, what kind of people to train, and how to train people" is a question worthy of lifelong consideration for our educators. With the increasing number of college graduates and the impact of the global epidemic, the employment pressure of graduates

continues to increase. How to effectively solve the prominent employment contradiction is particularly important. The employment work under the information technology has greatly eased the current employment pressure of colleges and universities and diluted the employment panic of students. Colleges and universities actively expand employment channels, release online job fairs, carry out online job fairs, conduct online psychological counseling and employment guidance, etc., so that students can obtain timely and effective employment information and guidance without leaving home. In the final online interview and contract signing, the role of information technology can't be denied.

## **3. Disadvantages of Information Technology in the Application of Higher Education and Teaching**

### **3.1. Teachers are short of information technology knowledge and backward in information technology means**

In the process of information technology teaching, some teachers, especially the older teachers, have not mastered the basic skills of information technology due to the lack of information technology knowledge, which leads to the exclusion of the application of information technology in education and teaching. They can't effectively integrate information technology with teaching methods and content, which greatly reduces the teaching effect and quality.

### **3.2. The goal of information technology education for teachers is not clear, and the connotation of information technology education is not understood deeply**

The college classroom under information technology requires teachers to design the teaching content of this lesson, including situation design, structure design, activity design, homework design, etc. Teachers often fail to integrate teaching content and information technology classroom deeply because of unclear information technology education objectives and poor understanding of information technology education connotation.

### **3.3. Information technology class may encounter hacker intrusion**

Where there is a network, there will be hackers. It can be said that hackers and the network coexist. The main job of hackers is to crack and dig. Their constant digging and exploration has promoted the continuous progress of the Internet field. Of course, there is also a risk of being "hacked" in the information technology classroom. In the early morning of November 2, a netizen sent a paper claiming that her mother is a teacher with many years of teaching experience because of the epidemic, Launching online teaching for students at home, hackers invaded the classroom and attacked and abused their mother in life, which caused serious damage to the classroom order and caused serious psychological shadow, even life threat to teachers.

## **4. Conclusion**

The application and promotion of information technology in college education and teaching has become an inevitable trend. Only by correctly understanding the role of modern

information technology in classroom teaching and making it properly applied to teaching, can we truly play the role of information technology in classroom teaching and better serve our education and teaching. Especially in the current context of the epidemic, most of the education and teaching work in colleges and universities need to be carried out by means of information technology, and have achieved certain results and accumulated certain experience, but there are also inevitable problems, which requires our educators to learn and master modern information technology, think hard, and build well in the future education and teaching process, Fully apply information technology to classroom teaching flexibly, build an efficient teaching classroom dominated by students, give students enough space for personalized development, so as to stimulate students' interest in learning and improve the quality of classroom teaching.

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