

# 2.1 Educational Technology in China

Commercialization	Education	Entertainment	Major Events of 2008	Policies and Implemented Laws	The High Technological Era
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## 2.1.1 Introduction

The very first use of educational technology in China happened in 1922 in the School of Agriculture of Jinling University. Team members from the college audio-visual programs used slides and films with oral explanations recorded on phonograph to teach people the scientific method for cotton-planting. Later on, after 1949, audio-visual education was developed in various schools at all levels. In 1960's, radio and television universities were funded in Beijing, Shanghai and Shenyang successively. After the implementation of reform and open to the outside world policies, educational technology was greatly developed.

Educational technology, to some extent, reflects the innovation of China's education. The leaders of the central government have been attaching importance to the technology in education. Modern distance education is one of the key projects which are aimed to develop education in China, in particular, for the rural areas.

## 2.1.2 Educational Technology on Campus

China began to develop the educational technology on campus since 1978. In 1997, the Ministry of Education selected 1000 schools as the experimental schools for modern educational technology. These schools are aimed to take good advantage of modern educational technology to reform the fundamental education. It turned out that the overall qualities of education in primary and secondary schools are very satisfied.

Nowadays, computer has become the supplementary teaching equipment for many schools in urban areas of China. Multi-media computers and campus network have been installed in most of the universities, colleges and high schools in big cities. The educational technology makes learning process more active and playful because of the colorful teaching slides combined with creative videos or sounds which can grab students' attention during class. Use of technology also brings convenience for teacher to prepare for their lessons. For high education institutions, teaching staff use both television textbooks and multi-media software to edit their lecture slides. According to CERNET, the Decision on Strengthening Educational Reform and Boosting Education of Overall Qualification emphasized that "Computer and information technology education should be spread in senior secondary schools and some qualified junior secondary and primary schools. All the higher education institutions and key secondary and primary schools will establish it step by step." Educational technology is also applied for vocational schools and adult educational schools. For instance, in vocational schools, teachers teach practical skills by demonstration through videos.

## 2.1.3 Educational Technology on Distance Education in China

### 2.1.3.1 History

The beginning of distance education in China is 1950's. By the end of 1970's, radio and television universities and colleges were very popular around the country. The boom of information technology in 1990's had promoted the development of distance education. Advanced ICT was put into use in distance education while traditional satellite education still played the important role.

Radio and television universities and colleges are considered as the earliest distance education universities to use ICT. (Before that, people used printed handouts and mailing the notes as the way of information delivery.) The main purposes of distance universities are to offer sub-degree programs and supply programs for vocational and technical education, service training, vocational training and continuing education. The tertiary level of teaching and management of the country's radio and television universities are conducted under the overall planning, 468 specialties including literature, economics, politics, law, science, engineering, medicine, agriculture, art, physical education and teacher training are established one after another. The radio and television education system consisting of the CRTVU, 44 provincial radio and television universities, 831 municipal-level radio and television universities and 1699 county-level branches, has formed through twenty years' efforts. According to the 1997 statistics, the total number of graduates of three-year radio and television colleges has reached 2,313,800 and the total enrollment has reached over 700,000. The total number of graduates of specialized secondary schools has reached over 1, 000, 000 and the total enrollment has reached over 400,000. The total number of all kinds of non- degree educational graduates has reached over 30 million. Practical- Skills training has been offered to millions of farmers. From 1996, the CRTVU has organized the education programs from sub-degree programs to degree programs and some experimental higher vocational education and admission of students on a trial basis. The progress of open education and modernization has been speeded up.

### 2.1.3.2 System of Satellite Education

Satellite education channel 1 started broadcasting programs on October 1, 1986. Year 1987 witness the establishment of China Education Television (CETV) and the second and third channels followed up in 1988 and 1994 responsible for transmitting educational programs. The contents include degree education of radio and television universities, continuing education after graduation, training and continuing education for teachers and principals, secondary specialties and vocational education, practical-skill training courses for peasants. Channel 1 broadcasts educational news and comprehensive educational programs. Channel 2 focuses on the courses of CRTVU. The programs of Channel 3 mainly for spreading the nine-year compulsory education are jointly run by the Ministry of Education and the government of Shandong Province. Beijing Educational Channel (channel 35) that covers the whole area was established by CETV in October, 1996.

Over 940 television stations, and reception and relay stations, 10,000 satellite stations and 66,000 video stations had been established in the Chinese educational system by the end of 1997.

Satellite communication technology presents its special advantages and vitality. Its use in education brings new vigor to education. It widens the teaching scale and contents of radio and television universities. It improves the development of training for secondary and primary teachers and of vocational education. It pushes forward the educational reform and economic and educational development of outlying regions. Our country is making efforts on transforming the educational satellite net to digital, interactive and Ku wave system with the development of information technology. The feedback system is coming into use by making full use of the net resources, Interactive teaching and transformed educational satellite net will play and important role in the country's distance education.

### Construction of Electronic Audio-visual Teaching Materials

Electronic teaching materials are a main part of modern teaching materials and also the key link of educational technology. They become more and more important with the use of high-tech in the field of education. The contents include basic education, higher education, vocational education and radio and TV education. The media include movies, projective films, slides, tape recorders, videos and laser disks, complementary teaching software and the written textbooks for these materials.

### 2.1.3.3 Modern Distance Education (see Modern Distance Education page)

### 2.1.3.4 Challenges Facing China's Distance Education Endeavors

1. There is the problem of access. Individual web-based study is still not possible for most people.
2. Internet access is expensive. Most Chinese citizens-particularly those who would most benefit from distance education, cannot afford it.
3. The lack of locally produced software.
4. Online centers are not yet efficiently managed.
5. Many DE teachers lack specific training.
6. A relatively small number of students actually graduate from distance education programs
7. China does suffer at the moment from a lack of infrastructure: inadequate bandwidth; inadequate access to computers; and inadequate software.

### 2.1.3.5 A Comparison of Chinese and Western Distance Education Initiatives

	Chinese Distance Education	Western Distance Education
<b>1. A Difference in the Literacy Base</b>	81.5% of China's citizens are literate	97% in Canada and the USA
<b>2. A Difference in the Number of Graduates</b>	The number of university students in China today is 4.5 million. This is only 0.27% of the country's population.	The total number of students registered in American universities is 10.9 million. This represents 3.82% of the entire population.
<b>3. A Difference in Available Programs</b>	In China study options are limited primarily to science, culture and technology. Tuition is free. Medical care is free. A reasonable job is fairly easy to find, and frequently offered upon graduation.	In North America, Europe and Australia, education is expensive, course and program selection is broad and the job prospects for are uncertain.
<b>4. Differences in Attitude and Personal Opportunities</b>	In China admission to a university has been a stressful and complex process which most candidates failed. Only last year, in 2002 were 60% of entrance examination candidates successful. Between 1949 and 1978 only 2,900,000 students graduated from full time universities and colleges.	In many western countries higher education is almost a basic right.
<b>5. Differences of Focus</b>	In China it is a major component of a national system.	Distance education in North America and Europe is primarily a tertiary level skills or academic based affair.
<b>6. The Role of Television</b>	In China television is, a major player in higher education	In western nations, ETV is an option for a minority.
<b>7. The Role of the Internet</b>	In China less than one percent of the population can access the Internet	In many western nations up to 70%
<b>8. Differences in National Goals</b>		In the west, there were as many national educational goals as there are educational systems.

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