

## Chapter 9

# The Implementation of Modern Information Technologies in Educational Fields

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### ABSTRACT

*As known to all, we are living in an information society today. Learners can acquire knowledge, skill, and ability by participating in teaching, training and learning systems. As the basis of teaching, training, and learning system, the management system is significantly important in the management of online materials and intercommunion between students and teachers. In order to construct more effective systems of management, virtual organizations should be considered with latticed structure, which can easily adapt to external environment changing and may even inspire more innovations in the fields of education.*

### INTRODUCTION

As for modern education, a mass of information technologies have been put into practice (Aleksandrov, Proletarsky, Ke, & Neusypin, 2012; Kovalenko, 2012). In Japan, for those who accept engineering professional education at Tokyo, Osaka and Kioto universities, vast of high information technologies have been applied. In view of the applying of high educational technologies in USA, numerous of universities can be listed, such as University of Illinois at Urbana-Champaign, University of Pennsylvania, Purdue University, University of Texas, Stanford University, University of California, Massachusetts Institute

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of Technology, Carnegie Mellon University, Georgia Institute of Technology and etc. With the rapid and booming development in China, new information educational technologies have also been actively suggested to apply in schools, colleges and universities during training, teaching and learning process.

## **INFORMATION TECHNOLOGY AND INFORMATION SOCIETY**

Information technology has become the main pillar of economic development. In terms of the GDP development, information industry comes first. What's more, telecommunication has also become one of main methods to increase the efficiency of production and to strengthen competitive power at home, even in the world.

The development of infrastructure serves to the development of information technology. Above all, we cannot emphasize the importance of infrastructure improvement in the fields of education and science too much. For example, in China redistribution of state revenue and national resources is going on, which makes a benefit to the progress of science and education.

During the struggle for international top ranking, it is also highly required to develop information technology and to build information society. Moreover, the development level of information infrastructure and information technology is one of the most important evaluation indicators.

Information society make it possible for every company, department and unit of society to access to information sources and share their achievements on internet. It should be noted that the exchanging process of information must be guaranteed by laws and regulations in order to keep the technical secret of own country, company and organizations. Therefore, new criteria should be established to assess the development level of society.

Using computers, mobile phones as well as immobile phones, a large number of people all over the world can get access to the internet. Due to technology integration and convergence, such as telecommuting computer, audio-visual technology etc., uniform integrated informational systems have been far and wide applied and popularized in every aspect of society.

Information society gives rise to unitive world economic system, unitive informational living space, global informational infrastructure and global legislation laws (Gorelov, 2007; Knyagin, Meshkov, & Utolin, 2016). In information society, activities of economy and business are being carried out with the help of information communicative mediums. By utilizing high-technology, virtual economic and financial systems can be established. Moreover, an interrelation exists between the virtual economic and financial systems and the actual-physical economic as well as financial systems, namely, an interactive relation.

## **Development of Russian Educational Complex**

The key problem of socioeconomic development of Russian Federation in contemporary conditions is the low competitiveness of major industries. To some extent, the reason is that the organs of state power and government, organizations and citizens are not fully and not effectively used the opportunities provided by the information society.

One of the most important sectors of the economy is education. Therefore, innovation of contemporary organizational and economic processes in the field of education has been strongly required. Hence, there is a need for organization forms and management methods to develop Russian educational complex

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