On Cultivating Students’ E-Learning Ability in Big Data Era

Wei FAN

Xi’an Fanyi University, Taiyigong County, Chang’an District, Xi’an, Shaanxi, China

Fanweijack003@163.com

Keywords: Big Data, E-learning, Autonomous Learning, Information Processing Capability, Collaborative Learning.

Abstract. With the advent of Big Data era, to learn through modern educational technology is a must for human beings. However, under the influence of the traditional teaching, learners are not comfortable with the new learning environment. This paper analyzes the characteristics of e-learning culture, and then points out the abilities that learners should have in the information age.

Introduction

In Big Data era, with the popularity of the Internet as well as the in-depth integration of information technology and education, MOOC, Micro-course, and Flipped Classroom have become the focus in the education field. It is a basic skill for human beings to learn through information technology. Under the guidance of the advanced education philosophy, the modern educational technology is the application of information technology in education. The integration of modern information technology and education not only gives a new connotation to education, but also brings unprecedented challenges to the traditional education model and learning model. The popularization of information technology in education field will lead to the change of teaching contents, teaching means, teaching methods, teaching model and learning model, and ultimately lead to the change of education philosophy, education model and even the whole education system.

The continuous popularization of the Internet and the sharing of the educational resources provide learners with convenient learning opportunities and abundant learning resources, and also leave learners at a loss in front of the sea of information. In the era of “Internet” plus “education”, traditional learning methods and strategies are obviously not fit to the new learning environment. The modern educational technology has changed the traditional model of knowledge diffusion. Therefore, the learning model should be changed accordingly. Away from their teachers’ and parents’ monitoring, some learners are addicted to online games and virtual world, and others are lost in the ocean of information in the process of online learning. As a result, many parents and teachers have raised great doubt about the wide application of modern technology in education, which has caused the fear of online learning. At present, many colleges and universities constantly upgrade the hardware and software equipment. However, it is more urgent to change their traditional learning methods, and to improve the adaptability of students in the modern educational technology environment. Along with Chinese education entering a period of diversification, informationization, and digitalization, it is the requirement of the times, and also the trend of the development of higher education that learners should change their traditional receptive style into autonomous learning style.

The Features of Learning Culture during the Internet plus Era

Openness. The openness of learning environment is mainly reflected in the openness of learning objects, learning time and space, learning content, learning process, and learning assessment. Modern education technology breaks the limitations of the traditional teaching style. Learners are not restricted to certain space and time, and they could learn anywhere via the Internet and other modern education technology. All the resources on the network are open to learners, and learners can choose the corresponding learning resources according to their own needs. Online learning
resources are changing constantly, which is beneficial to the learners to master the latest research achievements and up-to-date knowledge. The vivid presentation of online learning resources is very different from the static presentation of the traditional teaching materials. It is presented to the online learners by text, graphics, audio, animation, video and other different forms, which greatly stimulates learners’ interest.

**Autonomy.** In the Internet age, the open learning resources further liberated people’s learning behavior. Learners changed from the passive recipients of knowledge into the active constructor of knowledge. Learners can study independently. This phenomenon is called “self-organizing learning” by an Indian education scientist. Autonomous learning becomes the main means of learning. Learners can choose time, place, learning content, learning model, and are allowed to learn at their pace. If teacher’s explanation is not completely understood, learners can decide whether to watch the video repeatedly, whether to participate in BBS discussion and online assessment, and whether to continue learning or not.

**Richness.** In the 21st century, with the rapid development of science and technology, the Internet, providing abundant information resources to mankind, has become the world’s largest carrier of information. Vast amounts of information resources provide learners with great convenience. They can search information they need through the network. When learners are able to use the network skillfully, online resources become a know-it-all super-consultant.

**Interactivity.** Interactivity refers to the multidirectional interaction with the learners as the center, which is not only a simple dialogue between man and machine, but also between teachers and learners, instant and non-instant interaction between learners. In the information age, in many cases, teachers and learners, instant and non-instant interaction between learners. In the information age, in many cases, teachers and learners, instant and non-instant interaction between learners. In the information age, in many cases, teachers and learners, even learners themselves are separated from each other. In virtual network space people more often feel isolated. Furthermore, learner's knowledge construction is based on communication with others. Therefore, good interaction is a necessary condition for effective e-learning, which is even more important than the interaction in traditional classroom. Learners can interact with each other instantly through BBS, online chat rooms, etc. In addition, they can also communicate with each other through the microblog, email.

**Cultivation of E-learning Ability**

**Autonomous Learning.** The information age requires students to have four abilities, namely, learning to know, learning to be, learning to live together and learning to be. Learning to know is the basis. Contemporary illiterate does not refer to someone who has not learned to read or write. Instead, it refers to someone who does not know how to learn. Autonomous learning, which is the main means of learning for learners, is particularly important in the information age. It requires learners not only to determine learning goals, learning contents and etc by themselves, but also to control themselves and monitor themselves. The ability of learning autonomously will directly determine the success or failure of online learning.

**Information Processing.** Ability Information processing ability refers to the ability to collect, analyze and select information. In the information age, learner is no longer a person who only accepts information passively, but should be a person who knows how to efficiently retrieve, accurately analyze and select information. Learners are transformed from the passive recipients of traditional knowledge to the active constructors of knowledge, while the teachers are transformed into the promoters of learners’ learning. Thus, the ability of individuals to obtain information and process information will determine whether he or she will be successful in his or her future career.

**Conclusion**

Cloud computing, the Internet of things and big data are giant booster of the current education revolution. In the Big Data era, the deep integration of the Internet and education brings great challenge to the education field. Learners’ learning model has become a kind of self-organizing
behavior. The role of teachers and teaching institutions has changed, and learners must make some adjustments in terms of learning model and etc., in order to make the modern educational technology truly helpful to the learners, finally to realize the deep integration of educational technology and learners’ lifelong learning.

References


