# GUEST EDITORIAL

# E-learning in China

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## Abstract

**Purpose** – The purpose of this paper is to set the context for the papers in this Special Issue, which explore the state of e-learning in China. It introduces relevant topics such as the imbalanced development between the Eastern developed region and the Western undeveloped region and the fact that a large number of students who graduate from senior secondary schools cannot go to reputable universities, which drive the development of e-learning in China. With rapid economic development, China now has the ability to provide better infrastructure and other necessary conditions for schools and universities. E-learning is believed to be a promising approach since it offers students ways to interact with experienced teachers or professors. The Chinese government has initiated a number of national projects to set up or upgrade the infrastructure in schools, and a number of Chinese online schools and distance education colleges have been established to offer various e-learning programs.

**Design/methodology/approach** – This article introduces the case studies that comprise this special issue on e-learning in China.

**Findings** – The use of information and communication technologies in education is at different stages in China. This review presents a clear picture on the development of e-learning in China and the challenges it currently faces.

**Practical implications** – The paper summarizes the form of e-learning form China. This information is useful for policymakers, administrators and teachers.

**Originality/value** – The state of e-learning in China is under-represented in Western educational technology journals.

**Keywords** Distance learning, E-learning, China

**Paper type** General review

Because of the huge population and wide territory, Chinese education faces many challenges (Wang, 2007). One of the challenges with basic education is its imbalanced development between the Eastern developed region and the Western undeveloped region. Many schools in the developed region have very good facilities and teachers, and students can hence receive good education. However, in some rural areas of the undeveloped region, the school conditions are incredibly low and even there are no schools at all. Children have difficulties in getting good-quality education.

A similar problem exists in tertiary education as well. A large number of students who graduate from senior secondary schools cannot go to reputable universities, and a majority of universities, in both developed and undeveloped regions, commonly lack high-quality educational resources. There is a gap between the high demand for better education and limited educational resources available (Zhu *et al.*, 2003).

These challenges for Chinese educators and policy makers are to provide students with alternative modes of access to high-quality education. With rapid economic development, China now has the ability to provide better infrastructure and other necessary conditions for schools and universities. E-learning is believed to be a promising approach since it offers students ways to interact with experienced teachers or professors. The Chinese government has initiated a number of national projects to set up or upgrade the infrastructure in schools, and a number of Chinese online schools and distance education colleges have been established to offer various e-learning programs.

This special issue collects eight articles that describe various aspects of e-learning in China. These articles span a fairly wide spectrum of e-learning, ranging from a general overview (article 1) and teachers' perceptions (article 2) of e-learning in China, case studies of two distance education institutes (articles 3 and 4); to specific course design and evaluation (articles 6 and 7). The articles also cover the use of e-learning at different levels, ranging from basic education (article 8); tertiary education (article 7) to adult continuing education (article 6).

The first article in this special issue, "Distance education in China: the current state of e-learning", written by Chen, Chen and Wang, gives an overview of the current development of e-learning in China. They summarize three existing representation forms of e-learning:

(1) e-delivery;

(2) e-teaching; and

(3) e-education.

The aim of e-delivery is to increase the number of students who can get resources from the National Educational Resources Database and other institutes. The national "Modern Distance Education Project for Rural Primary and Secondary Schools" aims to equip all rural middle schools with computer classrooms, rural elementary schools with satellite receiving facilities and DVD players within five years. E-teaching is to help students learn at anytime anywhere by using emerging ICT. It is often added into classroom teaching to facilitate and supplement traditional teaching. E-education is now more used in degree programs for lifelong learning. It enables students to self-study with the assistance from teachers in distance. It helps to broaden the scale of higher education. An example of each e-learning form is described in this article.

The second article, "Teachers' conception of e-learning in Chinese higher education: a phenomenographic analysis", written by Zhao, McConnell and Jiang, examines the conception of teachers on e-learning and applications of e-learning in higher education. In this article, they report on the results of the interviews with Chinese higher education teachers who teach in conventional classrooms, and examine the ways these teachers think about e-learning and e-teaching, their beliefs about "e" practice, the ways they implement e-learning, and the problems they face when incorporating e-learning into their courses. They present findings in five categories:

(1) the centrality of the lecture;

(2) online co-operative learning;

(3) network learning;

(4) student learning; and

(5) infrastructure and access.

They find that lecturing is still the central method in Chinese higher education and is unlikely to be superseded by any other method in the near future, and most teachers believe that e-learning is to deliver packaged learning materials to masses of off-campus students. Obviously many teachers' conception on e-learning is at a low level.

The third article, "Moving from TV broadcasting to e-learning: contributions of distance education to teacher education in China", written by Gao and Zhang, provides an overview of the demand, capacity and challenges of teacher education in China. It also highlights the significant contributions of a distance teacher education university: China Central Radio and TV University (CCRTVU) in the last three decades. CCRTVU has offered new and innovative forms of professional development for millions of school teachers and principals, and accompanies new challenges. As a case study, this article analyzes its infrastructure and operational structure and its unique position to bridge teacher education institutions and integrate educational resources. Also, this article discusses challenges and issues of e-learning as a new form of distance education for promoting professional development of teachers and principals in remote rural schools.

The fourth article, "The development of the Distance Education College of East China Normal University: a case study", written by Ye, Su and Yan, presents a case of the development of a distance education college (DEC) in China. The DEC of East China Normal University (ECNU) was established in 2001. It has gone through three developmental stages:

(1) positioning;

(2) quality improving; and

(3) innovating.

In the positioning stage, the DEC decided to focus on teachers' continuing education, and developed a tentative quality-assuring system and relevant regulations to supervise its attached training centers. In the second stage, the quality-first policy was emphasized by enhancing training modes, resource building and service support. At the current stage, the DEC sets up an online educational association to help various local training centers carry out independent training. However, the development of the DEC meets some challenges in improving course resources, trainers' quality, and service support. Until now, there are 68 distance education colleges situated in universities and the number of student enrollment reached 0.84 million in 2004 (National Bureau of Statistics, 2005). The growth of each DEC is similar. This article takes the DEC in ECNU as a sample to illustrate the development of distance education colleges in China.

The fifth article, "Teacher training in China and a practical model: e-Training Community (eTC)", written by Yan, describes the general teacher training in China and

the current situation of conducting teacher training through the internet (called e-training in this article). This article analyzes the trends of and problems with e-training. It further proposes a practical cooperation model, eTC, to solve the problems and meet the challenges of local teacher training agencies (TTAs). As of now, three TTAs have joined the eTC and six additional TTAs are in the process of joining the eTC. The tentative result shows that by joining the eTC, a TTA can become more competent and the manager and tutors can become more professional within a short timeframe. It seems that the eTC is a practical model for implementing e-training as it combines the strength of universities and the local TTA together. Currently the DEC is piloting the eTC model. In the future there may be more professional institutions and TTAs follow this model to conduct e-training more effectively.

The sixth article, "The design of a web-based course for self-directed learning", written by Liu, describes the design and evaluation of a specific web-based course for in-service teacher training at the DEC of ECNU. This course is designed based on four dimensions:

(1) pedagogical;
(2) social;
(3) psychological; and
(4) technological (Wang, 2008).

The pedagogical design enables students to construct knowledge and achieve learning objectives. It focuses on the content design and the teaching strategies. The social design provides learner with a comfortable learning environment in which they can easily and conveniently communicate with others. The psychological design focuses on designing course content, learning activities based on learners' background and preferences to meet their individual needs. The technological design ensures the ease of use and attractiveness of the course. The evaluation results show the course design is sound and the built-in support tools are meaningful for students to construct knowledge. However, certain problems still exist in the course. This is one of the courses offered in the DEC, from which we can sense how web-based courses are developed in DECs.

The seventh article, "The use of e-learning in pre-service teacher education", written by Li, describes the integration of e-learning into a course for pre-service teacher education. The implementation of the course follows the blended learning approach, which involves four face-to-face sessions and more than ten online sessions. A CD-ROM and internet resources are provided for students to self-study. An e-learning platform is used for delivery of additional learning resources and instructions, interaction and online discussions, online assignment submission, and tracking of the learning process. A survey is conducted with the learners before and after the course. The survey results show that the e-learning approach used in the course is successful. A majority of students are satisfied with the course design and delivery, and they become more confident in integrating ICT into their future teaching after taking the course. Also, the learners are engaged in the learning process and they produce high-quality artifacts in the learning process.

The last paper, "K12 online school practice in China", written by Chen, Wang and Qiao, describes three developmental stages of K12 online schools for basic education

and their running modes. In the first four years after 1996, the growth of online schools was fast, and the concepts of e-learning and online school were formulated. In the following four-year adjusting stage, the number of online schools decreased remarkably as some investors and managers of over-emphasized on financial gains but ignored regularities and characteristics of web-based education. At the present steady stage, managers and teachers pay more attention to the educational role of online schools. They have developed better understanding and an improved model of cooperation. There are three modes of running K12 online schools in China. Some online schools are run by a consortium of the government, private enterprise, and a school; by a consortium of private enterprise and school; or by an enterprise or a school alone. Most online schools in China are supported by private enterprises. This article takes the Beijing No. 4 Online School as a sample to illustrate its online educational practice, the current status and practical level, the use of ICT, and its experience and lessons.

The collected articles in this special issue present various aspects of e-learning in China. We hope that this collection of articles would show a clear picture on the development of e-learning in China and challenges it faces.

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