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## Technical Evaluation Report

# 64. Traditional to Online Media in China and Korea: unfulfilled promise

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### Abstract

The governments of China and South Korea have supported the development of distance education both legislatively and financially. The use of traditional media for this purpose has been successful in both countries, though the evolution to Internet-based education has been only partially successful. This report describes this process in terms of uncritical application of western distance education technology and methodology in environments that are unsuitable for them. Until these issues are addressed, it is suggested Web-based educational approaches in South Korea and China will remain unreliable, and will fail to provide a complete service to students.

**Keywords:** Internet; TV; radio; online learning; accessibility; open and distance learning; China; South Korea

### Introduction

South Korea and China are two of Asia's most developed nations. In both nations the use of open and distance learning (ODL) methods has grown substantially in recent years. Toshiyuki, Kim and Lee (2000) found that despite a “history of cyber education in Korea [that] is relatively short, the country's commitment to it is strong” (p. 107). In Korea, ODL is marked by thriving Internet-based courses and a discernible movement away from print-based correspondence and TV-based courses. While this shift has been generally welcomed by ODL specialists, the unquestioning acceptance and misapplication of western distance education (DE) methods in both countries has resulted in problems for both learners and teachers.

The major user of DE methods in South Korea is the Korea National Open University (KNOU). From its inception (Kim, 1999), KNOU's primary mode of delivery has combined the printed textbook and other media including TV, radio, audio-cassettes, and video-conferencing. In 1996, a cable TV channel was added to KNOU's infrastructure; and the Open University Network (OUN) “has been providing programs of regular degree courses to KNOU students and non-degree lifelong education courses to the general public to meet the needs for higher education and retraining” (Kim, 1999, p. 14). The TV channel switched from cable to satellite in 1999 “in order to expand distance education services to those who live in remote areas where cables have not

been installed” (p. 14). These delivery methods require students to be available for face-to-face classes.

Such opportunities for teacher-student interaction suit Korean students, suggest Lee, Chun, Im and Heo (2003), whereas a major problem encountered in online education in Korea is the “lack of a support system to help students manage the learning process” (p. 6). Lee and colleagues stress the need for greater use and availability of support facilities for online DE in Korea, in order “to help students who are on their own in the distance education environment and suffer from difficulties managing the learning process” (p. 6).

In China, DE delivery has been based on uses of the broadcast media, primarily by the China Central Radio and TV University (CCRTVU). In the last decade, these traditional media have been challenged in China by the rise of Web-based course offerings. Chinese DE, as indicated by Zhang, Niu and Jiang (2002) “has evolved through three stages: correspondence-based education; broadcasting/ television-based education since the 1980s; and advanced distance learning based on information and Internet technologies since the 1990s” (p. 5). While the first two stages are well-established in China, Zhang and colleagues argue that “the third stage is still in the embryonic phase, but is experiencing rapid growth and development” (p. 5). As the current report indicates, this growth has not been without problems. Chinese experience with Web-based learning in particular indicates that, while the technology may work well in western ODL environments, many Chinese learners are ill-equipped for online study and instructors have been poorly trained in the technology's use.

The report examines the adoption of Internet-based DE methods in these two nations, and the problems that have accompanied it.

## **Evolution of Online Education in China**

Modern DE in China dates back to the end of the Cultural Revolution, and the formation of the CCRTVU, the largest open learning system in the world. The CCRTVU was established in 1979 to build “on earlier work of correspondence colleges and autonomous radio and television institutes in large cities” (Murphy & Yuen, 1998, p. 5). In the early 1980s, many CCRTVU students were either full-time or part-time employees released from their places of work with basic pay to study either at work or at designated study centres (Ma & Hawkrigde, 1995, p. 28). The University was under the auspices of the State Education Commission and the Ministry of Radio and Television, and its regional branches were under local government leadership. A US \$65 million loan to the CCRTVU by the World Bank allowed the University to equip TV stations and to train staff; and the installation of satellite facilities and ultra-high frequency transmitters allowed the University to expand its coverage in urban and rural areas.

In 1987, the CCRTVU curriculum had evolved to meet the “immediate national needs for middle-level expertise” by providing professional continuing education (Ma & Hawkrigde, 1995, p. 31). By 1991, about 5,000 hours of educational programming were being broadcast. Closely monitored by the State Education Commission and its provincial counterparts, the University's approach to DE was lauded as the education of large numbers of students at low cost. Chen, Wang and Chen (2007) found that improvements in TV technology have since lead to major developments in educational video broadcasting and video-conferencing, and that satellite broadcasting in China is a vital DE delivery method as well as “the largest information

*Motlik*

transmission medium” in the country (p. 42). Radio and TV at CCRTVU continues to play an important role in helping China achieve its long-term goals of education for the masses.

During the last decade, however, the use of the traditional media at CCRTVU has been challenged by the promise of Internet-based technologies emerging in other parts of the world. Carr-Chellmann and Zhang (2000) described government statements as indicating that China “is prepared to leverage this history of distance education to reach a broader audience through the internet” (p. 304). They cited a speech by Wei Yu, Vice Minister of China's Ministry of Education, stating that “the prevailing fashion across the world is to apply multimedia technology and computer networking system in distance education and to implement individualized self-learning associated with interactive group discussion” (p. 305). The vice minister recommended a three-stage approach for the uptake of Internet-based learning. The first was to develop educational technologies emphasising multimedia and promoting its use in schools; the next was to broaden the public’s knowledge about networking systems; and the third was to develop modern DE approaches “to build and provide tremendous online resources, so as to satisfy the ever-growing needs for lifetime learning in the society” (p. 305).

Wang (2005) states that since 1998, “the Chinese Ministry of Education has approved of 68 institutions of higher learning experimenting with Web-based education in China” (p. 1), and that 1.373 million students were registered in Web-based institutions by the end of 2002. Wang adds that “[t]he Chinese Ministry of Education attaches great importance to the development of online education, which is deemed important for achieving the lifelong educational mission of the country” (p. 2). While Chinese policy-makers have commonly extolled the advantages of advanced, western technologies, however, their sentiments seem starkly disconnected from the country's economic realities. In China, many students live in poor and isolated rural areas where Internet-based learning is unavailable to them. Yet the use of Internet and Web-based methods in China is increasing nonetheless.

There are positive aspects to China's move towards expanded online learning opportunities. Zhang, Niu and Jiang (2002) have argued that Web-based education “has provided a new path to people desiring access to higher education, and is thereby seen as contributing to the government's goal of popularizing higher education among its vast population,” and that online learning “has increased and extended the use of the educational resources developed by conventional universities” (p. 11). The move to online instruction has resulted in quality educational resources being shared by staff and students, and in increased educational services for campus-based learners. Web-based education “has provided new ways of thinking and new methods of teaching and learning,” (p. 11) and has led to a concerted move away from teacher-centred instruction to a more learner-centred style. In this environment, “students have more autonomy in their own learning, and teachers play a more significant role as facilitators” (Zhang et al., 2002, p. 11). Wang (2005), however, finds that many students lack the “autonomous learning qualities needed for self-directed learning [which has] resulted in their ineffective use of learner support services available to them” (p. 6).

Zhang and colleagues (2002) have reported other problems in China’s move to Internet-based education. They note a “shortage of online instructional resources and duplication of online programs” (p. 13), and state that many of the “44 conventional universities offer similar specialties and course offerings, each requiring substantial investments in course research and development” (p. 13). The result, they suggest, is a “duplication of resource materials produced by these universities, thereby creating unnecessary waste in terms of human and financial resources” (p. 13). They also note problems in the management of online learning support centres

*Motlik*

across China, and the need “to establish and maintain constructive and mutually beneficial relationships between partner institutions to ensure effective learning and student support” (p. 13). Lack of teacher training is another major impediment to online learning. Without proper training, “it is hard to expect teachers to produce top quality online learning materials and provide top quality learning support to students” (p. 13). Zhang and colleagues conclude that the lack of graduates from online institutes raises credibility and quality concerns about Chinese online education generally.

In order to overcome such problems, Reiser and Gagne (1983), as cited by Zhang and Hung (2007), indicated that “the selection of the teaching and learning media should be executed in line with the learning context” (p. 4). Wichit (1997), cited in the same source, wrote that the major factors to be taken into account in the design of course delivery methods include the availability of adequately developed technology, and their suitability for both teachers and learners. The selection of the Internet and Web-based media in China has not conspicuously fulfilled these criteria. Zheng, Ouyang and Rui (2002) described lack of Internet access as one of the major hurdles to online learning in China, and that “people in the inner lands have fewer chances to access the latest technology than do people from coastal cities and provinces” (p. 91). These writers mention that the cost of equipping learning centres with computers in order to accommodate learners in China is prohibitive. Chen, Wang and Chen (2007) argue that these problems have continued to the present day, and that Internet-based schools in China lack sufficient knowledge of DE standards and procedures, enroll students who lack DE learning skills, and suffer from a lack of experience in e-learning methodology.

## **Evolution of Online Education in Korea**

The evolution from TV to online DE methods in South Korea has followed a similar path to that of China. As Korea’s ICT infrastructure has developed and the Internet has become more widespread, Internet-based teaching and learning has moved into mainstream education. Toshiyuki, Kim and Lee (2000) recalled that “the Korea Educational Reform Committee proposed the implementation and operation of cyber universities as a new higher education model in August 1996 [and since then] most universities in Korea have begun to run cyber classes in various ways” (p. 107). By 1999, “700 courses were offered by pilot cyber universities [with] 50,000 registered students” (p. 108). Cost-effectiveness has been a constant issue, however. Jung (2000) noted that at KNOU “the average cost per student in a 16-week Web-based course for 30 students is US \$434, whereas a typical 16-week distance education TV course for 1,000 students costs US \$80 per student” (p. 9).

In 2001, Lee indicated that quality of Web-based instruction in Korea was hindered by failure to account for learning style, and that to improve, its educators and administrators must stop “treating all learners uniformly” (p. 131) and start “taking dissimilar adaptation styles of learners into account” (p. 131). Lassche (2000) criticised Korea’s move to Web-based learning as a “leap before you look” decision. He suggested that government initiatives such as the *Brain Korea 21* project and the *Virtual Education Trial Project* have led to universities “competing with each other to implement information technologies (IT) in order to qualify for much-needed funding,” and that Korea has “introduced network technologies without much support from empirical findings” (p. 57). Because adequate funding is not forthcoming prior to IT implementation, there has been little chance “that *a priori* research, being self-funded, would be conducted” (p. 57). Misko, Choi, Hong and Lee (2004) have predicted that the scarcity of operational regulations for Korean cyber-universities will result in ongoing difficulties. They state that “the criteria for establishing an online university [and] arrangements for managing academic affairs . . . continue

*Motlik*

to be based on factors inherited from the regulatory policy of the traditional offline classroom educational institutes” (p. 56). The design of buildings and credit hours, the selection of teachers, and the structure of the academic year for cyber-universities are all based on conventional educational models. As early as 1996, Cuban, cited by Lassche (2000), suggested that a fundamental problem with Internet-based learning lies in the misleading way that “techno-reformers” argue the reasons for its failure.

“To techno-reformers the answer is simple: Teachers lack the access, knowledge, and skills to use these machines properly. When teachers are thus blamed, solutions also become obvious: Provide teachers with sufficient computer hardware and software, technical assistance in using the machines, and better preparation programs. Technology-leaning policymakers, corporate leaders, and other influential non-educators, with their access to media, have framed both the problem and the solution. Teachers...remain voiceless in setting the reform agenda.” (p. 60)

Criticising the “top-down administration of the procedure,” Lassche (2000) also indicated that “teachers and students alike need to share in developing and maintaining a vision for any proposed changes in education, such as the use of network technology” (p. 67). Simultaneously, Kim (1999) argued that excessively rigid curricular design, with “no formal mechanism to identify specific learner needs of adult students” (p. 12), has hampered Web-based teaching and learning in Korea. He also indicated the need for improvements in the assessment of online learning so that it would “reflect the relevance of education” (p. 15), and that the existing system of feedback to students was too slow, with students insufficiently involved in the educational process: “students’ culture of passive involvement in discussion is . . . an important reason for the inactivity in the online group discussions” (p. 15).

For Web-based learning to be effective in Korea, a number of developments are needed according to Jung (2002), including:

- A “regular system to monitor and evaluate the development and implementation of online education”
- More feedback opportunities, especially for adult learners in just-in-time training courses
- Organised sessions to facilitate self-directed learning are necessary to help learners develop and strengthen competencies in managing the independent learning process
- Continuous development programmes for online staff which focus on educational effectiveness
- More attention to instructional design factors such as flexible course structure, quick and frequent feedback, visual layouts, and multiple zones of content knowledge. (Jung, 2002, pp. 28-29)

Leem and Lim (2007) have concluded that the state of online learning in Korea has not changed appreciably to this day. Reporting a study of 201 Korean Universities, they find that 85 per cent have investigated implementing e-learning possibilities, but that teachers and students alike lack adequate support systems and opportunities for active participation in e-learning programmes. Today, most large Korean universities and colleges remain technically ill-equipped for online learning, and lack the funding and policies needed for its development. This study also reveals a general lack of much-needed contact between schools and industry.

In view of the disappointing history of online learning in Korea, it is timely to recall Lee's warning (2001) against adopting an overly optimistic attitude towards Internet-based learning,

and remember that “innovations throughout the educational history did not last very long and resulted in mere bandwagons” (p. 122).

## Conclusions

The DE experiences of South Korea and China share many similarities. Both countries have seen their distance education initiatives grow from correspondence-based education to teaching and learning through uses of radio and television, and to current investment in Internet-based education. Cyber-universities have expanded rapidly in Korea, and conventional universities have also begun to offer online instruction. By 2005, more than three million students in China were registered in online courses (Wang, 2005).

In both countries, however, the move to Web-based education has been characterised by problems readily identified with an unthinking application of inappropriate western models in the Asian environment. Korean educational institutions have rushed to implement online learning in order to qualify for government funding, with an attitude which appears to disregard the students, the teachers, and the need for both to be equipped with skills to handle online learning and interaction processes. Teachers and students have also been left out of the decision-making process - two of the main stakeholders in the educational setting ignored – and top-down administrative decisions regarding Web-based instruction have resulted in flawed applications.

In China, the switch to Internet-based learning has contradicted the CCRTVU's evident, long-standing success with the traditional media of radio and television. The CCRTVU model has been shown to be cost-effective with an expanded reach throughout the nation. The Chinese government, however, in its pursuit of education opportunities for all its citizens, has decided that the “prevailing fashion across the world is to apply multimedia technology and computer networking system in distance education” (Carr-Chellmann & Zhang, 2000, p. 305), and that this must also be the right path for China. As in South Korea, this decision has failed to yield reliable educational services. Students lack the learning skills for participation in online courses; teacher training and online resources are lacking; Internet facilities are unevenly distributed the country, and are especially lacking in rural areas; and the general result is a lack of credibility for Web-based education across the nation.

If two of the most developed nations in Asia cannot efficiently implement online learning in more than a decade, what hope do less developed nations have of doing so? Until the problems impeding Web-based education in China and South Korea are appropriately addressed, it will continue to produce uneven results.

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