

# Online Education and Cultural Background

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## INTRODUCTION

Online education is growing rapidly. Online education is a Web-based form of education where students gain access to online materials and communicate with instructors and other students. There are four distinguishing characteristics that separate it from e-learning and other modes of learning (Paulsen, 2003). First, there is a physical separation of teachers and learners in online education. This differentiates it from face-to-face education. Second, online education is regulated or instituted by an educational organization, hence disqualifying it from the self-study mode of learning. Third, educational content is distributed over a computer network, unlike e-learning, which includes educational content distributed by CD-ROMS and DVD-ROMS. Fourth, students and instructors communicate with each other over a computer network. There is a two-way flow of information which is not always available in e-learning.

Indeed, the communicative element is a unique feature of online education and is an extension of the individualized experience of earlier technologies (Piccoli, Ahmad, & Ives, 2001). Not solely an interaction between the student and the system, online education allows communication between peers and instructors and even collaborative learning communities. Online education also provides high levels of student control and supports participant contact and interaction continuously during the learning process.

There are different levels of “onlineness” (Hosie & Schibeci, 2005). The most basic level is *Web supplemented*. It is optional for students to interact with the education content, and to communicate with instructors and other students. These online learning resources are a component in addition to their face-to-face learning.

The intermediate level is *Web dependent*. Students need to participate online as part of the course requirement, besides some face-to-face component. Students

should utilize the online education content, which includes course descriptions, study guides, examination details, assessment overview, reading lists, and online quizzes. Also, students are expected to interact with lecturers and peers by participating in the online discussion forum or other computer-mediated communications (CMC). This is the most popular form of online education today.

The advanced level is *fully online*. This final level requires no face-to-face meetings with the students. Education content, learning activities, assessment, and support services can only be referred to vis-à-vis the computer network. Distance education could occur in this manner, but the term “distance education” also includes the use of other types of media which may not be electronic.

Online education is supported by various systems. The core system in most educational institutes is the learning management system or the virtual learning environment. Learning management systems grant access to online learning resources for students and instructors; they register users, provide communication tools for users, manage courses, evaluate learners, and provide administrative reports (Paulsen, 2003). They can be commercial software like Blackboard or developed in-house. Online education can also require library and digital resources, learner support services, accounting, security, the Internet and e-commerce technology, which may be integrated with the core system.

Online educational technologies can be categorized into synchronous or asynchronous. Synchronous applications require users to be available at the same time. They include networked group decision support systems (GDSS), e-meetings, e-conferences, and features like whiteboards, text-based chat, and video conferencing. Asynchronous technologies are time independent and comprise discussion boards or Web boards, document repositories, Web logging, podcast audio content, and Web cast lectures.

## THE EVOLUTION OF ONLINE EDUCATION

The Internet explosion in the 1990s has had a tremendous impact on the world; in particular, it has given rise to online education. Initially, researchers focused on developing discrete knowledge and basic skills of students through drill-and-practice Web-based applications (Stites, 2004). Subsequently, they experimented with other creative applications. The Web-based medium allowed the use of richer materials, accurate evaluation of students, creation of relevant courseware, frequent update of content, easy access to materials anytime and anywhere, and more interaction among students and instructors (Tomei, 2005). Thus, a new strategy of learning using the Internet was developed to facilitate higher-order learning, problem solving, creativity, and integrated skills development (Stites, 2004). In particular, the ability to communicate and collaborate with other computers and persons through CMC like e-mail, chat rooms, and bulletin boards brought about a new mode of learning—online collaborative learning (Harasim, 2000).

However, critics highlighted the disadvantageous of online education, such as creating information disorientation and overload, requiring a high level of learner motivation and independence, requiring technical competency before learning can occur and higher start-up costs for infrastructure compared to the traditional classroom environment. In response to these claims, a multitude of studies have investigated the effectiveness of online education and educational technology (Hiltz, Zhang, & Turoff, 2002).

Some researchers suggest that online education is effective for learning. The seminal study by Alavi (1994) looked into the effectiveness of collaborative learning using GDSS. The study found that students who used GDSS perceived higher levels of skill development, learning, and interest relative to the control group. Students who used GDSS to learn also enjoyed their learning experience and had higher final course grades than the face-to-face group. Later findings by researchers (e.g., Curtis & Lawson, 2001; Piccoli et al., 2001) of the effectiveness of a fully online course revealed that the performance outcome of the online environment is similar to the traditional learning environment. Learners using the online mode reported higher computer self-efficacy but had lower satisfaction with their learning experience than the learners

in the traditional mode. A possible reason is that students were not used to managing their own learning as higher learner control was afforded by the online learning medium. Factors like student familiarity with the medium and ease of use of the interface are also important moderating factors.

Hence, studies have suggested that online education is at least as effective as the face-to-face mode of delivery (Hiltz et al., 2002). The effectiveness of online education hinges on a number of influencing factors (Piccoli et al. 2001; Webster & Hackley 1997). For instance, Webster and Hackley (1997) found that when the teaching style is more interactive using various media, that is, instructor immediacy, students will have higher perceived learning. The interactivity of the delivery medium such as online video conferencing also improved learning outcomes and the satisfaction of students over noninteractive video and nonvideo situations (Zhang, Zhou, Briggs, & Nunamaker, 2006). Shih, Munoz, and Sanchez (2006) observed that the previous experience of students increased the efficiency in online learning projects with clearly defined learning objectives. Other researchers looked at system functionality and concluded that the functionality of the system strongly affected the use of online education systems (Pituch & Lee, 2004).

Among the potential factors, an increasingly prominent factor is the cultural background of learners. Its importance cannot be overemphasized in view of the phenomenon of globalization; however, it has received disproportionate research attention. The notion of a global village brings about increasing opportunities for students of different cultures to collaborate. The above provides the impetus for the study of cultural background. Countries, in both the eastern and the western hemispheres, are experimenting with online education and implementing it in their schools and universities. Online education also facilitates the expansion and improvement of international distance education. However, online education for one culture might not be as effective in another culture. Several studies have pointed out the importance of cultural background in determining the effectiveness of online education (Morse, 2003). The perceived online learning of students has been found to vary when students belong to different cultural backgrounds (Morse, 2003). The acceptance of online education also differs between cultures (Grandon, Alshare, & Kwun, 2005).

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