E–Learning and K–12

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INTRODUCTION

Distance education has been around since a reliable postal service, and has long been viewed as a way in which to offer lifelong learning to those who are geographically separated from traditional institutions, have obligations that limit their ability to attend regular courses, or prefer to learn in new ways. Interest in online or e-learning has grown enormously since 1990, and currently, almost every post-secondary institution offers courses using information technologies. More importantly, while traditional distance learning courses have been offered to the K-12 population as enrichment activities for a long time, the growth in online K-12 offerings has more than paralleled that in the post-secondary environment. Post-secondary and K-12 institutions have shared the challenge of creating a balance between the need for intense and personal interaction with the reality of limited financial and other resources, and have also shared a dependence on electronic networks and groupware (Mangan, 1999; Schrum, 1998).

This article will examine the role of governments (Federal, state, local, and international) in organizing, funding, and supporting K-12 e-learning for their citizens. The definition of e-learning varies throughout the world, but for the purposes of this article, it includes the teaching of formal, credit-bearing courses (including those that can lead to a degree). Additionally, it can be considered as "teaching and learning through the primary medium of Web-based computer resources, minimally including hyperlinks and/or the Internet, and synchronous and/or asynchronous communication" (Kinash, 2002, p. 13).

This article begins by looking at the United States government's support for the development of e-learning programs and then examines the virtual schools and other entities that individual states, regional consortia, or individual school districts have created. Next, the article will describe a few of the many international initiatives and also provide information on what a few countries have created. Finally, this discussion concludes with the identification of significant issues worth consideration in the development or implementation of K-12 e-learning experiences.

OVERVIEW OF K-12 E-LEARNING

The growth of government-sponsored virtual schools has been rapid and widespread. Originally labeled Virtual High Schools, they are now focused on the entire K-12 spectrum; however, most courses are still geared toward upper-level students (Clark, 2001). In a comprehensive study of virtual schools, The PEAK Group (2002) found that approximately 200,000 students were expected to enroll in an online course in one of the 88 programs in the U.S. during the school year 2002-2003. The most commonly reported cost for each course was $300, although the costs varied widely. Calculus was the online Advanced Placement (AP) course offered by the most schools (Clark, 2001, p. i).

One focus of all K-12 e-learning experiences is to reach learners who may have been unable to gain access to the courses they need because of illness, disability, learning challenges, geographic locations (rural communities, for example), or other personal circumstances, such as additions to a home-schooling plan. Other common reasons for joining this e-learning adventure include previously failing a class and needing to make up credit or wanting to earn extra credit and/or graduate early.

U.S. FEDERAL INITIATIVES

The federal government has been interested in expanding access and information in the areas of educational technology for many years. In recent years, it supported a variety of Star Schools Initiatives to investigate traditional distance learning op-

portunities, with varying success. More recently, the government has explored the possibilities for virtual learning and encouraged exploration through funding "proof of concept" programs, promoting the development of documents for best practices, and by offering discussions of e-learning.

One of the more popular and well-known government-sponsored programs has been the Virtual High School (VHS). This entity evolved out of the Concord Consortium, which was originally funded by a U. S. Department of Education Technology Innovation Grant. The model for VHS is that of a collaborative between high schools throughout the U. S. A unique aspect of this project is that schools commit to participate and then local educators take an online course to learn how to design and teach online. These local educators design and offer courses, and their participation allows their local students to participate in other educators' online classes. Early research on this and other virtual high schools (Roblyer & Elbaum, 1999/2000) demonstrated that the potential was great; however, preparation to teach and learn in this environment was essential.

After the initial funding from the federal government, the Concord Consortium turned its e-learning enterprise into a self-sustaining, non-profit educational institution. It is now supported by students' fees and grants to promote and study the effects of this program. For example, in 2004, the Virtual High School offered grants for Advanced Placement classes to "Low-wealth Schools" in an effort to bring AP and pre-AP classes to middle- and high-school students.

STATE AND LOCAL GOVERNMENT INITIATIVES

Although the federal government may have taken the lead in sponsoring online learning opportunities, state-sanctioned and state-wide schools are the most common type of e-learning found in the U. S. Clark (2001) found that at least 14 states have such entities and many others are contemplating establishing them. Many of these schools offer courses not only to students in their state but also to students in other states. For example, the Utah Electronic High School offers courses free to any Utah student and charges others (available to students around the world) a small fee. Another model is that of the Kentucky Virtual School that only offers courses to students in Kentucky.

Perhaps the most well-known exemplar of this type of e-learning is The Florida Virtual School (FLVS). It is a statewide, Internet-based, public high school offering rigorous curriculum online. The Florida Legislature initially funded the FLVS as a pilot project in 1997, at $1.3 million to begin course development with a limited student enrollment. The 2000 Florida Legislature established FLVS as an independent education entity with a separate governing board appointed by the Governor. As the largest of the state-run e-learning options, this school offers courses to students on a one-course basis or as an entire curriculum.

Another goal of e-learning goes beyond the reported high-school courses. The Michigan Virtual High School (MVHS), funded since 2001, has recorded 9,620 course enrollments, but has had more than 52,000 student users of online exam preparation tools for the SAT, PSAT, Michigan Educational Assessment Program (MEAP), and College Board exams. This represents a new venture for e-learning opportunities. In addition, MVHS has made online assessment and multimedia tools available to 1,200 teachers and provided online training for 400 certified Michigan high school teachers.

Another type of state-supported virtual school is sponsored by state-funded universities. One example of this type is the University of Nebraska-Lincoln Independent Study High School, which offers two curricula and diplomas (college preparatory and general education). The courses are offered to students throughout the world, including international students, and everyone pays approximately the same cost (no advantage to in-state students).

A recent and growing trend is the creation of state-funded charter virtual schools. These may be part of public school districts or they may be non-profit or for-profit organizations. These schools must operate under charter school legislation but do use state funds to support their staff and to provide technology to families and students. They have targeted their promotions to students schooled at home or to students needing alternative educational opportunities, and offer courses to all ages. These schools have become extremely popular throughout