eLearning, Virtual Schools, and the National Educational Technology Plan

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Virtual schools are a growing phenomenon in American elementary and secondary education. The terms "virtual high school" or "virtual school" are generally applied to any educational organization that offers K-12 courses through Internet- or Web-based methods (Clark, 2001). Virtual schooling can be seen as part of a larger phenomenon, eLearning, a concept that is increasingly used in the K-12 environment to describe not only distance teaching and learning, but also the general use of educational and information technology in support of teaching and learning. Clark (2001) estimated 40-50,000 K-12 student enrollments in virtual courses in 2000-2001. A year later Peak Group (2002) estimated 180,000 student enrollments, and in 2002-2003, Eduventures estimated 300,000 (Newman, Stein, & Trask, 2003). Enrollments in 2005 are probably several times larger.

The National Educational Technology Plan

In January 2005, the U. S. Department of Education released the new National Educational Technology Plan (NETP). The NETP presents recommendations under seven action goals that reflect input received from educators and technology experts across the country, and from over 210,000 K-12 students in all 50 states (USDOE, 2005). NETP represents a vision and a plan for the future of educational technology of which K-12 educators and their partners need to be aware. NETP discusses the role of e-Learning (defined therein as "online and multimedia instruction") and virtual schools as potentially transformational approaches to schooling. The plan envisions collaboration between technology-savvy students and educators who use technology for sophisticated purposes such as real-time assessment and feedback in the classroom, within an overall environment that fosters and supports e-learning.

After the NETP was released, the President's Budget for FY 2007 proposed elimination of the primary federal source of funding for meeting NETP goals, the Enhancing Education through Technology program. This has raised questions about federal commitment to helping states implement the NETP, and a renewed urgency to efforts by technology leaders at all levels to maintain the gains that have been made and agree on future strategies.

The NETP action goals are as follows:

1. Strengthen Leadership
2. Consider Innovative Budgeting
3. Improve Teacher Training
4. ***Support e-Learning and Virtual Schools***
5. Encourage Broadband Access
6. Move Toward Digital Content
7. Integrate Data Systems

Five recommendations are outlined in the NETP under Action Goal 4, ***Support e-Learning and Virtual Schools***. For each of these five recommendations, a brief overview is provided below, from NETP and from the literature. Evidence is provided on the current and desired status of each recommendation. Finally, a question is posed about the likelihood that the desired status can be achieved.

For each recommendation, two issues are addressed: the status of e-learning, in terms of the use of instructional technology in schools, and the status of virtual schooling, or use of online K-12 courses. After a brief review of background information from NETP and other sources, participants will be asked to consider the likelihood that each NETP goal will be achieved. Participants will also be asked to contribute their own views on the recommendations in NETP and next steps in strategies for moving forward with e-learning and virtual schools.

Recommendation A: ***Provide Every Student Access to e-learning***

Background. By 2003, nearly 100 percent of U. S. public schools had access to the Internet; 95% used broadband. About 93% of classrooms were online. The average ratio of students to computers with Internet access was 4.4 to 1. (Parsad & Jones, 2005). It appears that a majority of K-12 students already have access to e-learning when it is defined to include the instructional use of technology in the classroom (multimedia instruction), although there is a lack of recent studies on its extent. In 1999, about 52% of K-12 teachers said they used technology in instruction (Lanahan, 2002). It is likely that 80-90% or more of middle and high school students have at least one teacher who uses technology in instruction.

Access to virtual school (online) courses involves several factors: access to the technology needed to participate; access to the online course, and a system for recruiting and supporting students to help them succeed. In 2003, about 38% of public high schools had at least one student enrolled in a distance learning course by video or online (Setzer & Lewis, 2005). Virtual schools must plan proactively to ensure underserved students are actively recruited and supported (Hernandez, 2005).

Current status. The percent of students with reasonable, appropriate access to online virtual school courses is probably much lower than the percent who at least occasionally receive multimedia instruction.

Desired status -- What is the likelihood in the foreseeable future that:

- Every student will have at least one teacher who makes instructional use of technology, online or in the classroom?
- Every student will have transparent access to online courses *appropriate for learner and instructional needs*?

Recommendation B: ***Enable Every Teacher to Participate in e-learning Training***.

Background. Teachers with classroom technology access, training and support are much more likely to report instructional use of technology. About 82 percent of U. S. public schools reported making professional development in the instructional use of technology available to teachers in 2003. School estimates suggested that less than half of all teachers participated in this training in 2003, although the percent who received technology training over time was not studied (Parsad and Jones, 2005). The Enhancing Education through Technology Program requires that 25% of funding to schools be spent on staff development.

Evidence on the national extent of training for online teachers is anecdotal. While thousands of teachers act as instructors or facilitators for online K-12 courses, it is likely that less than 1 % of all teachers nationwide are trained as online teachers. Our focus is on the quality of training for online teachers.

Current status. Extrapolating from the studies cited above, perhaps 50% of teachers receive technology training each school year, and a similar percent integrate technology into instruction. The intensity, duration and quality of staff development for online teachers varies significantly, with large national providers like the Virtual High School typically providing more training and local districts providing less.

Desired status -- What is the likelihood in the foreseeable future that:

- All schools will offer training in the instructional use of technology?
- All teachers will participate in technology training, at least one every few years?
- All teachers of K-12 online courses will receive training of the quality needed to teach effectively online?

Recommendation C: ***Encourage the Use of e-learning Options to Meet No Child Left Behind Requirements for Highly Qualified Teachers, Supplemental Services and Parental Choice****.*

Background. NCLB requires that all teachers be certified in their content area by 2006. Failing schools must provide Choice options after two years and Supplemental Educational Services (SES) after three years. Some states and districts have developed strategies for using e-learning to meet NCLB requirements. For example, Louisiana Virtual School pairs online teachers certified in math and local instructors. Some SES providers provide tutoring services via computer at home or school, or group-based instruction using technology. Charter schools are a fast growing choice option that enrolled about a million students in 2004-05. The Center for Education Reform estimates that 86 cyber charters served 31,000 students nationwide in 2004-05 (Chute, 2005). Many of the presenters at the July 2004 NLCB Technology Summit (USDOE, 2004) addressed these issues, and have papers posted online.

Current status. The extent of use of e-learning to meet NCLB goals is largely anecdotal at this point.

Desired status -- What is the likelihood in the foreseeable future that:

- All districts will understand and make effective use of e-learning options for meeting NCLB?

Recommendation D: ***Explore Creative Ways to Fund e-learning Opportunities.***

Background. Funding instructional use of technology and of virtual schools is a great challenge. Federal programs such as E-Rate ($2.2 billion a year since 1998) and Enhancing Education through Technology (about $400 million a year) have helped dramatically narrowed the technology gap between rich and poor schools. However, most technology funding comes from state, district and school budgets. NETP suggests consideration of budget restructuring, leasing, and multi-year technology innovation funds, but at the same time federal sources of technology and connectivity funding are in danger.

Most states apply existing school laws or ad hoc policies that may not be a good fit for online learning (Watson, Winograd and Kalmon, 2004), creating funding barriers for schools interested in expanding access to online courses. Virtual schools vary greatly in their costs and different types have different funding models. Who funds participation in virtual schools is a key issue, especially with the potential diversion of funding from traditional public schools to cyber charters (Cavalluzzo, 2004).

Current status. Past school technology funding has made instructional use of technology feasible in most schools, but this funding is in jeopardy.

Desired status -- What is the likelihood in the foreseeable future that:

- Schools will be able to obtain adequate funding for effective instructional use of technology?
- Adequate methods of funding participation in online courses will be developed in most states?

Recommendation E: ***Develop Quality Measures and Accreditation Standards for e-learning that Mirror Those Required for Course Credit.***

Background. It does not appear NETP's authors intended to suggest incorporating standards for the instructional use of technology into the regional accreditation standards for traditional schools. Rather, their focus here was on ensuring the quality of online courses. A number of organizations have developed quality measures for online K-12 courses, including National Schools Board Association and its partners, the Southern Regional Educational Board, and the Texas IQ Project. The regional accrediting associations have developed a Council for Trans-Regional Accreditation that provides national standards for distance learning schools (see papers, USDOE, 2004). However, like state school laws, these criteria do not always fit online learning well. Other accreditation sources may not be acceptable to colleges or employers. Virtual schools that provide supplemental courses may decide not seek regional/CITA accreditation to avoid the appearance of competition with the local schools of record that they serve.

Current status. A variety of online learning standard guides exist, and accreditation standards for distance learning fit online learning to some degree.

Desired status -- What is the likelihood in the foreseeable future that:

- There will be widespread agreement on a single set of online learning standards?
- These standards will be incorporated into regional and CITA accreditation processes?

Summary

In this paper we have explored the recommendations in the new National Educational Technology Plan for e-learning and virtual schools, and the likelihood that they will be achieved. This plan must be considered within the larger context of education and training. Agreement on basic goals for e-learning and virtual schools may help technology leaders make the case for virtual learning.

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Biographical Sketches

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