Redefining School From Site to Service

Learning In and From K-12 Online Education

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Introduction

Virtual schools began in the mid-1990s based on a place-based school paradigm with elements like electronic classrooms, one teacher per class, and most learning activities occurring within the walled garden of the classroom. This article reviews steps that virtual schools have taken away from basing their programs on a traditional school template to show how they have moved toward a new model for schooling and then recommends further steps in the development of education as a lifespan service. It begins with an outline of what virtual schools research and practice have taught the education community about learning in virtual schools and learning from virtual schools about students, teachers, and courses, using concepts from the theory of social coevolution (Soufolis, 2009).

Students

Distance education for K-12 learners has a history of more than 100 years of innova-

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tion and problem solving, beginning with correspondence courses for rural students and continuing to the accelerated courses of the 1990s (Clark, 2002). Many virtual schools began with the mission of increasing students' access to courses that were not available in their traditional schools, resulting in a "bimodal" distribution of students taking advanced or remedial courses online (Dickson, 2005). Today's virtual schools have closed the achievement gap for a diverse range of students who succeed in courses that provide them the individual attention and time they need (Liu & Cavanaugh, in press; Keeler & Horney, 2007). We have learned that virtual schooling has the flexibility to fit many individual students and can reach most students with quality instruction through the technical infrastructure outlined in the 2010 National Broadband Plan (Federal Communications Commission, 2010) and proliferating low-cost mobile devices.

Reaching students with flexible courses and pathways through education is necessary for developing the next century's citizens. As a race, we have solved many pressing problems of providing basic needs, and now have a need maximize our resources and technologies, skills that require right-brain dominance: creativity and conceptual strength (Pink, 2006). These skills also emphasize interdisciplinarity and complex interpersonal interactions dependent on social emotional intelligence (Goleman, 1996), which is now assessed in several universities. These strengths can be developed using the powerful social tools and open timelines of online and blended education.

Teachers and Courses

The best teachers are accomplished scholars and treat teaching as serious intellectual endeavors; they trust and expect more from students and create an environment for which diverse learners can explore, analyze, synthesize and ultimately construct meaning in their own ways; and they have developed a systematic program to assess their own efforts and make appropriate changes (Bain, 2004), all traits that are well-supported and expressed in online environments. Because interaction is the core of online learning, student-centeredness is an essential trait of effective online teachers and facilitators, along with other specific competencies including organization, knowledge of content, understanding of learning and data that informs instruction, and openness to innovative uses of communications technology and media (Beldarrain, 2006; Ferdig, Cavanaugh, DiPietro, Black, & Dawson, 2010; Means, Padilla, DeBarger, & Bakia, 2009). As online education increasingly merges with classroom-based education through blended programs, teachers will need a wider array of knowledge, skills and dispositions; fortunately, professional development and experience in one learning environment tend to strengthen a teacher's effectiveness in other environments (Lowes, 2010). Preparing teachers to teach in online and blended courses is complex and ideally it is integrated throughout our systems of teacher preparation and professional development through apprenticeships and coteaching (Ertmer & Ottenbreit-Leftwich, 2010). However, very few colleges of education and school systems regularly include online and blended teaching in their teacher education programs (Kennedy & Cavanaugh, 2009; Rice, Dawley, Gasell, & Flores, 2008).

Teacher education and professional development in communities of practice are increasingly important as K-12 online course designs evolve away from high structure, linearity, and a focus on the individual accomplishing all course activities, and toward the competency-based, branching, and increasingly social experience afforded by new tools like those described in the annual Horizon Report (New Media Consortium & EDUCAUSE,

2009). Collaborative courses that foster higher-order thinking and twenty-first century skills are now offered in virtual worlds for education. These active, engaging learning environments capitalize on individual learning preferences, differentiated schedules, situated cognition, and a diverse concentration of participants. Second Life (SL) has virtual campuses for hundreds of colleges and growing numbers of secondary schools, and there are dozens of other virtual worlds available, such as Worlds.com, There.com, ActiveWorlds, and a newcomer, Blue Mars.

Effective teacher professional development is ongoing and design-based (Means, 2010) and it is built on job-embedded experimentation (Ertmer & Ottenbreit-Leftwich, 2010). Distributed, large-scale professional development is possible and may be desirable in virtual worlds and other online environments in order to counter the novice online educator's initial tendency to align previous face-to-face practice into their new in-world environment, instead of using the unique attributes of virtual worlds. A common mistake is building virtual classrooms that resemble traditional classrooms with desks and boards, rather than creating a learning culture for constructing new meaning from the many, diverse open-source online resources. Coteaching and team teaching with successful online and in-world educators will speed that development.

Virtual schools have coevolved with technology. An example of this coevolution is blended/hybrid programs, like Fairmont's and Kentucky's, that represent synergistic progress in on-ground and online education programs. The reach of online education into homes and schools represents mainstreaming at the macro level of the innovations described in *Disrupting Class* (Christensen, Horn, & Johnson, 2008). The permeation of online educational resources such as Open Education Resources (OER, http://www.oercommons.org/) and mobile applications (apps) to learners represents mainstreaming of education innovation at the individual, micro level. Evolution of education at macro and micro levels is being promoted by groups with national and international influence, including the Hewlett Foundation, Institute for the Study of Knowledge Management in Education, and the Gates Foundation.

In order for the coevolution of education to continue, the redefinition of school from site to service is necessary. Schooling should be based on the best elements of other social services like medicine. Ideally, medical care is based on wellness and has been referred to as a life support system for the physical person. Education based on a wellness goal of building capacity and potential would be a lifespan support system for the intellectual person. As in medicine, educators would be caregivers providing service to students using the approaches best suited to each, in the times and places most appropriate for each.

Such a service-based education system could be built on what we have learned in recent years from research and practice as networked students (Drexler, Baralt, & Dawson, 2008) and communities of practice (Wenger, 2006) in which learning occurs for individuals and groups beyond boundaries of site-based schools. The networks and communities share three foundational stages in cycles of learning and collaboration: attainment by individuals of core competencies or objectives, synthesis of the objectives into meaningful products or activities, and shared application through exhibition and interaction.

A metaphor for this objective-synthesis-sharing cycle shows how natural and ingrained such activities are for human wellness. In the traditional method for food preparation the three stages are farm/market-kitchen-table. Individuals or small groups acquire specific ingredients at farm or market. They synthesize the ingredients into balanced meals in their kitchens,

which were outside each home in public view in villages. Then the meals that were crafted using a blend of art and science were shared communally in a social meal that sustained individuals and communities.

To enact an education system formed on this cycle requires a funding mechanism that encompasses all citizens, like a comprehensive Educare system might, in order to provide access to education though the lifespan. The system requires education care providers, general practitioners and specialists, in physical and virtual education care facilities where learners can be evaluated and can participate in creating an education plan to facilitate their next learning goals.

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