Inside a Blended Learning Environment

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The long awaited and hotly debated "disruption" of public education may finally have begun. Technology, the force that has transformed one industry after another, from the industrial revolution through the information age, is on the cusp of reshaping our schools fundamentally. This is heady talk. Historically, schools have been quite adept at absorbing new technologies—television, computers, the Internet—without changing how they provide instruction, use teachers, or cost taxpayers. Schools have proven one futurist after another dead wrong.

Economists say schools suffer from Baumol's disease. Technology cannot make them more efficient or effective because schools are an enterprise that depends inevitably on labor—meaning, teachers. Like a string quartet, William Baumol observed, some enterprises are inherently labor intensive, and do not become more efficient with technological progress. Indeed, schools become less efficient as teachers are asked to instruct fewer students to improve effectiveness.

Stanford education scholar Larry Cuban has made a career of explaining why schools reject reforms that threaten the essential relationship between teachers and students. Teachers need to be in control of their students and their work, and find ways to navigate around reforms that threaten that relationship. Cuban has been right time and again in predicting dismal results for school reforms.

So, why is technology this time around going to be different? Why will schools be transformed? Several years ago, Harvard Business School professor Clayton Christensen, who coined the term "disruptive technologies," predicted that schools would eventually be reshaped as other industries he had studied have been. Online technologies, in particular, would allow students to learn at their own pace, guided by interactive multi-media, with curricula customized to their personal needs. Teachers would not become superfluous but fewer would be necessary. Online technology would enable schools to overcome Baumol's disease, becoming more efficient and effective.

About the same time as Christensen made his prediction, Terry Moe and I cautioned in *Liberating Learning* that technology would be slower to break through in public schools than in other industries because politics tend to protect teachers and others who work in our schools. Nobody who works in any industry likes the idea of technological progress threatening her job. But in the private sector—where Christensen studied disruption—resistance to technological innovation proves futile. More efficient operations eat the lunch of resisters. The most productive firms win out. Consider all of the print journalists who ten years ago could not imagine newspapers being replaced by the Internet and its often shallow news coverage. Like it or not, competition did not permit them to resist. They adapted to the Internet or left journalism.

Schools are public institutions and not competitive firms. They can continue to use technology as they please as long as school boards and legislatures approve. Moe and I pointed to the overwhelming evidence of resistance. Online charter schools, which enable students to leave their traditional public schools and take some or all of their funding with them, have been fought tooth and nail. Today, most states that permit brick and mortar charter schools also permit virtual charter schools. But the laws that authorize them are so restrictive—limiting funding, service areas and enrollments, and imposing ill-suited traditional requirements like seat-time and teacher credentialing—that full-time online students are concentrated in only 10 states, and number only

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about 200,000 nationwide.

Technology use is also quite limited in brick and mortar public schools. Most online instruction is in areas where innovation does not threaten core instructional practices or jobs: teaching low demand AP courses or providing credit- or dropout-recovery courses. The politics of resistance is at work.

So what has changed? What makes a system that has resisted innovation suddenly ripe for it? Several factors, but the main one is blended learning. Technologists and educators are rapidly developing instructional models that make extensive use of both technology and teachers. Technology is deployed to do what it does best. Teachers are employed to do what they do best. Technology does not replace teachers; it supports teachers and makes them more productive. Schools are not replaced either by students working on computers from home. Schools are transformed into places where students do not learn exclusively by sitting in front of teachers. They learn working on computers, alone or with others students, as well as with their teachers. Blended learning does reduce the overall need for teachers, and controversy attends that point. But teachers are at the heart of the reform, and with the potential to enjoy a long overdue upgrade in their professional status and their compensation. This changes the politics.

In a book to be published in October 2012, I explain and illustrate the profound effect that blended learning can have on our schools. *The Best Teachers in the World: Why We Don't Have Them and How We Could* makes the case for several reforms that could raise materially the quality of the US teaching force. One of those is blended learning. Teachers are the single most important influence on student achievement within the control of schools. Yet our nation's policies toward teachers, from preparation to recruitment and hiring to working conditions to compensation, are not geared to attract and retain the best and the brightest. Blended learning has the potential to help change that. By shifting the burden of content delivery to computers and freeing the teacher from non-stop delivery of whole group instruction, blended learning provides teachers more opportunity to instruct students in small groups and attend to their individual needs. Blended

learning has the potential to make teachers more effective and to increase their satisfaction. The book offers case studies of blended learning successfully at work today.

The book also analyzes the potential impact of blended learning on the factor that perhaps most influences teacher quality, compensation. The US spends more per student than just about any nation on earth, but compensates teachers relatively poorly: we rank 20th worldwide. Over the last 40 years, teacher compensation in the US has fallen sharply relative to other professions, especially for women. Blended learning would enable the US to increase compensation for teachers by reducing the number of teachers in the workforce. Modest use of blended learning could reduce the US teaching force from 3.2 million teachers to 2.6 million. The savings could be used to raise the compensation of top half of all teachers by 50 percent. With substantially higher rewards for the best teachers, and the need to find fewer of them, the US could upgrade teaching quality substantially.

The potential of blended learning is hardly pie in the sky. Schools are experimenting with new blends of teaching and technology at an accelerating pace. New companies are starting up, seemingly daily, to help school realize the potential. One of those is Education Elements, headed by Anthony Kim, and headquartered in California. Anthony is one of the technology pioneers in online learning for public schools. His first company, Provost Systems, was the backbone of one of the country's largest virtual charter schools, the 8,000 student PA Cyber. Earlier this year, Anthony was named Entrepreneur of the Year by New Schools Venture Fund. Education Elements is developing technologies to provide schools integrated platforms for students to effortlessly access limitless instructional programs and for teachers and administrators to view data in unified dashboards. Education Elements also shows schools how to reorganize classrooms, school schedules, and budgets to make for a fundamentally different kind of schooling—educationally and financially.

Another organization helping to drive blended learning is Public Impact. Led by Bryan Hassel, and based on the other coast, in North Carolina, Public

Impact is working on two fronts. For many years, Bryan and his team have been producing policy analyses on cutting edge school reform ideas. They have been among the leaders in helping reformers think creatively about how to raise teacher quality. Recently that work has featured innovative models of restructured schools, designed to make best use of the best teachers. Public Impact estimates huge savings from blended learning that could be used to pay top teachers like top professionals. This is not mere theory. Public Impact is not just a policy shop. Public Impact works directly with schools and teachers to create real examples of schools restructured with blended learning.

The United States has been working to raise student achievement since at least 1983 when *A Nation at Risk* first sounded the alarm. Progress has been modest at best. A greater advance may well require more fundamental changes in how we conduct schooling. In other industries, fundamental changes have often been driven by advances in technology. Reducing labor costs, raising the productivity of those in the industry going forward, providing better service for consumers—these historically familiar developments may now be coming to public education. At a time when the US economy and burdened taxpayers are looking for efficient public services as well as effective ones, blended learning may provide an answer with something for everyone.