



MONICA MARTINEZ

Can we use the urgency and openness of the moment to truly re-imagine teaching and learning?

Imponderable or Ponderables?

Given that I was writing this column at the close of 2009, I couldn't help but be reflective about the year. So, I write this column with no real particular innovation to suggest.

Our education system was created during the agrarian age and underwent a major overhaul as we ushered in the industrial revolution, creating our current factory model of schooling. There was further tweaking in the late 1950s and 1960s, providing equal access to K-12 education for all students. These were great improvements, but our schools and our teaching still look the same. My parents, who are 75 years old and attended school in southern Colorado, could walk into a high school tomorrow and recognize it as their own experience. The classrooms may include smart boards, high-def TVs, computer centers, and some students using laptops or netbooks to take notes and do homework. But that's about it. Although that may look and feel different enough for many of us, it certainly doesn't show how we can change teaching and learning.

Why is it so hard to re-imagine a new form of equitable access to learning? One reason: We don't spend much time thinking about the future. Psychologists say we're comfortable accepting for tomorrow the assumptions that exist today. Psychologist Dan Gilbert, in a TEDTalks (filmed February 2004, posted December 2006) said, "Human beings have something that we might think of as a psychological immune system. A system of cognitive processes, largely nonconscious cognitive processes, that help them change their views of the world, so that they can feel better about the worlds in which they find themselves." Essentially, our brain is hard-wired to look for confirmation of our existing hypotheses. Another challenge to thinking about the future is the lack of context. As Paul Saffo, a forecaster from Silicon Valley, suggests, "The future people often see either looks just like the pres-

ent or the immediate past, or some breathless fantasy future about how a new technology is going to take over the world and super-saturate every aspect of our lives."

We know the future is not predictable, but we also know that we can anticipate the future. How can we think about education in a future context? We need to consider the external factors that will affect public education. For instance, many forecasters and science fiction writers predicted the Internet or some form of it. But many of these individuals predicted that the Internet would lead to the immediate death of "the book." They were right about the Internet. However, the Internet launched the success of Amazon, where books proliferated. So, forecasters got the direction of change right but not the exact prediction.

Shocks and Disruptions

As we've seen and heard in every blog, news report, and tweet, we're living through a series of system shocks and disruptions in energy, finance, climate, and health care — all key forces of destabilization. Our public education system shows clear signs of dysfunction, inequitable performance, and a general lack of innovation. As a result, we have an unprecedented opportunity to re-imagine teaching and learning.

Over the past year, I've noted an inflection point in the conversation about the future of learning, albeit most often in the context of using technology, digital media, and networked teaching and learning platforms. Starting last summer, the Knowledge Alliance with the Stupski Foundation held an invitational meeting titled Unleashing Knowledge and Innovation for the Next Generation of Learning. The meeting focused on how education R&D could be redesigned to drive innovation and help break through the "calcified education system" and contribute to transformation. October was inundated with meetings on the future of education. The Target Foundation and the American Architectural Foundation hosted

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an invitation-only summit, Schoolhouse 3.0: Designing Educational Facilities for 21st-Century Technologies and Curriculum, that brought together leading architects, educators, technology experts, thought leaders, and decision makers from the Los Angeles and New York school systems to envision new learning environments designed for the digital future. Late October brought back-to-back meetings, one sponsored by the Joan Ganz Cooney Center at the Sesame Workshop, Sense Media, and the MacArthur Foundation and held at Google, and another by the Philanthropy Roundtable held at Stanford University. Both had a similar focus as reflected by the titles — the first was Breakthrough Learning in a Digital Age and the second, Rebooting Education: Technology & the Future of Learning. Both focused on bringing together a diverse set of leaders from multiple fields to share proven and promising models that can challenge our concept of teaching and learning in a technology- and multimedia-pervasive environment. To finish off the year, the Institute for the Study of Knowledge Management hosted the Big Ideas Fest, at which participants worked in collaborative design groups to consider how to best leverage some of the cutting-edge thinking in K-20 education.

There is a lot of momentum out there, genuine enthusiasm mixed with urgency and hope. There is also leadership through programmatic initiatives from philanthropic organizations, such as the Hewlett Foundation and the MacArthur Foundation; technology organizations, including Apple, Dell, IBM, Intel, Oracle, and Toshiba; and the entertainment sector, such as the Joan Ganz Cooney Center at the Sesame Workshop. And then, of course, there is the potential financial support from both philanthropists and the U.S. Department of Education.

However, education has been too intractable to leverage innovation. Or, as Tom VanderArk of Revolution Learning wrote, “a good idea cannot even cross the street in education” (http://www.huffingtonpost.com/tom-vanderark/how-social-networking-wit_b_349467.html). So will we be able to capitalize on this urgency, momentum, and openness to transform education?

Unfortunately, during times of dramatic change, rather than respond in resilient ways, society often chooses self-defeating strategies. Too often, institutional reactions or strategies are what the KnowledgeWorks 2020 forecast

calls an autoimmune response — decisions and ideas that seem to be institutionally rational but which actually further weaken inflexible systems. That is, people respond to a problem with answers that make sense only in the context of the old systems — thereby actually strangling innovation.

It’s arguable that NCLB is an autoimmune response. NCLB was intended to raise education levels by holding schools responsible for student performance. Is it possible that instead of improving the entire system, NCLB constrains real reform by requiring rigid and narrow measures that restrict the type of learning in the 21st century? In attempting to help, could it hurt the system?

Responses that only moderately tweak the system or the role of the teacher are reactive and don’t consider the long-term trends. For example, last year the Ohio 8, a strategic alliance composed of the superintendents and teachers union presidents from Ohio’s eight largest urban school districts, engaged in comprehensive scenario planning in which they designed scenarios for the year 2020 and analyzed the implications for urban education in Ohio. Based on their deliberations, the Ohio 8 developed a set of robust recommendations and subsequent actions designed to position themselves successfully for the future (http://www.wendlingpr.com/ohio8/20080815_Ohio%208%20Final%20Report.pdf). And the Center for Teaching Quality and the TeacherSolutions 2030 team studied the works of researchers and reformers, demographers, and futurists to develop an expanded vision for student learning in the 21st century and for the teaching profession.

As I suggested when I started this column, I had no intention to describe what I think the future of teaching and learning should look like. I’m just tossing out some ponderables and perhaps some imponderables. I leave you with two ponderable thoughts:

“We don’t know how to do this kind of continuous learning that complexity calls for. In today’s world, when we confront a massive failure (think the current economic meltdown), we try to stop the chaos by imposing simplistic regulations. But every time we attempt to control chaos with controls and oversight, we create only more chaos” (Meg Wheatley, 2009).

“A new idea is first condemned as ridiculous and then dismissed as trivial until finally, it becomes what everybody knows” (William James, 1879).

A good idea cannot even cross the street in education.

— Tom VanderArk

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Technology, Entertainment, Design. TED includes the award-winning TEDTalks video site.

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KnowledgeWorks 2020 forecast

The 2020 Forecast is a tool for thinking about, preparing for, and shaping the future. It outlines key forces of change that will shape the landscape of learning over the next decade.

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