

Opportunity in disruption

Coeur d'Alene Press, The (ID) - Sunday, August 10, 2014

Author: CHARLES BUCK , Ph. D. , Special to The Press

We've seen and heard a lot about disruption lately. Disruption in lifestyles, traffic, classrooms, disrupted ability of governmental bodies to focus on substantive issues, even disruption of governments themselves. The word disruption has appeared in the NY Times 7,710 times in the last 12 months, about the same number of times as stability (6,590). To extend this wordplay, disruption occurs 140 times in a search of the Coeur d'Alene Press website while stability comes in at 188. Of course 'stability' is not typically considered newsworthy so we might predict that some of these reports are covering the disruption of stability.

When it comes to industry disruption, the word conjures up both fear for traditional businesses in the industry and excitement about new, and yes, disruptive business models. In business, disruption is tightly linked with innovation. The most promising new companies are typically said to be introducing "disruptive innovation." There are many examples of such companies: Ford and the assembly line, Apple's iPod mp3 player, Travelocity, etc. It does seem however, that rapid-fire technological advances are now accelerating disruptive innovation across all business sectors. The pace of these technological advances is increasing; presaging shorter business cycles, further instability in labor markets, and great opportunities for innovators.

When disruptive innovation occurs in highly regulated industries it presents special challenges. Sooner or later, usually sooner, the innovation is subjected to regulatory scrutiny that can slow or even eliminate adoption of the innovation. Even in the face of this challenge however, innovators continue to focus efforts in these industries and to push for a place for new innovations in the market. Two regulated industries very familiar to all of us are currently under assault from disruptive innovation: health care and education.

The similarities between these industries is remarkable. Both are engaged by everyone, albeit to varying extents. Both are considered necessary in our society and there is general agreement that both must be excellent. In fact, both are considered to be entitlements by virtually everyone (at least when we need them) and we invest huge amounts of public funding to support both industries. Both are crucial for economic development, the better the health care and education systems, the more likely it is that a region will attract and retain high growth and, that's right, innovative employers.

Of course one can take the comparison too far. The regulatory burden is greater for health care, as is to be expected when life and death decisions are an everyday part of business. Spending in these industries also differs. World Bank data indicates that health care spending is nearly 18 percent of the gross domestic product in the US. This percentage has been fairly static over the last five years. Education consumes about 5

and one-half percent of GDP. That still represents one in every \$20 of economic activity. Together these industries account for about a quarter of all US economic activity.

The disruptions in these industries are also similar. Not surprisingly, technology is driving disruption in both. Although it has occurred with relatively little fanfare, adoption of electronic medical records (EMRs) presented a major disruption to health care organizations. There is general agreement that readily-accessible, content-rich EMRs will improve efficiency and quality of care. Adoption of EMRs however, represents a sea change for the industry. Universal EMR adoption, facilitated by the federal affordable care act, is progressing well. The number of physicians using EMRs has doubled in just five years from around 43 percent in 2009 to more than 97 percent in 2014. Ensuring compatibility and accuracy of the EMR, and expanding functionalities continues to be a major pain point for the industry. Of course this is just one of many technological innovations disrupting health care. Think of robotic surgery, genome sequencing and the personalization of disease management. Health care and wellness apps are increasingly popular and are shifting the center of health care from the clinic and hospital to the consumer.

In education online teaching and training provides the most significant disruption the industry has seen in generations. Massive Open Online Courses (MOOCs) are providing excellent content to anyone, anywhere and often for free. Although many of the first commercial efforts in this space have been disappointing with respect to quality and acceptance in the industry, most experts agree that technology will drive significant changes in education at all levels.

Of course technology is not the only source of disruption in these industries. As Rick Beyer at venture capital firm Miles Howland Education Partners recently described in Forbes magazine, changing consumer habits and the introduction of unconventional new industry players are also major sources of disruption. For example, patients must demand access to their own health and medical data for health and wellness apps to be successful. Students must really want to stay home and take college courses in their pajamas for online higher education to be effective.

How these industries deal with disruptive innovation will feature in headlines for years to come. At the local level, our health care industry is providing exemplary leadership in response to industry disruption. The partnership announced this week between Kootenai Health and the Mayo Clinic brings a renewed focus on patient centered care — a key source of disruption in the industry. Mayo is also among the most active players in development of clinically relevant health care apps. On the technology side, Kootenai Health has more than tripled its information technology staff and is now efficiently incorporating technology into practice. These moves embrace disruption and strengthen Kootenai Health for an uncertain health care future. Similarly, the partnership recently announced between the Northwest Specialty Hospital and The Coeur d'Alene Resort for medical tourism recognizes changing patient demands and creates an important revenue opportunity for both partners.

Our local education industry must also respond to disruptive innovation. Strong partnerships already exist with University of Idaho, Lewis-Clark State College, North Idaho Community College and local school districts that are being leveraged to better understand and to serve local demands from students and employers. These partnerships extend to disruptive players like KTEC and the new experiential learning-focused PTECH network that will roll out a pilot program in several local high schools this fall. Both emphasize job-readiness and real world experience to better prepare students for the workforce.

We can do more and we must to contribute to a competitive advantage for our region. Unbundling educational offerings may be one important step forward. In line with emerging industry trends, we can offer training in smaller chunks that focus on technical and soft skills relevant for the workplace. This approach need not always provide college credit but neither is it incompatible with completing a higher education. That goal should continue to feature prominently in our community. A recent poll of Idaho businesses conducted by the Idaho Business for Education group indicates that Idaho private sector employers anticipate that more than 60 percent of their future workforce will need post high school credentials and 43 percent will hold bachelor's degrees or higher in 2018. We must raise awareness of this need to have any chance of meeting this goal. At the same time we are reaching out to local and regional industry partners to understand specific skills that will best enable our graduates to be successful.

Although education represents a fraction of the GDP compared to health care, its impact on the economy is enormous. Our educational institutions are responsible for training students to be excellent employees that will enable businesses to grow. In addition, a focus on critical thinking and creativity in education will inspire entrepreneurs who will create new jobs in high growth industries in our communities. The CDA 2030 Vision Project underscores the fact that the customers of education, our community, demand that we improve practical education and provide more diverse higher education opportunities. This community input is an invaluable resource that will help our local educational institutions thrive in a disruptive environment.

Charles Buck , Ph. D., is the associate vice president and center executive officer of the University of Idaho, North Idaho.