Higher Education in the Digital Age

William G. Bowen
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Reviewed by Raymond Schroeder
UNIVERSITY OF ILLINOIS SPRINGFIELD

We are confronted by a multifaceted challenge to higher education that is unprecedented in the past century and a half. Enrollments are dropping, costs are soaring, public funding has decreased, and the public at large has begun to question the value of the baccalaureate. At the same time, low cost and no-cost alternatives have emerged through the burgeoning new medium of the Internet, providing ubiquitous accessibility and rich multimedia opportunities. In this context, William G. Bowen’s thought-filled book, *Higher Education in the Digital Age*, has been published to provide insight from a handful of thoughtful leaders in our field.

President Emeritus of Princeton University and the Mellon Foundation, William G. Bowen, refined his presentations on the “cost disease” and prospects for an “online fix” from the Tanner Lecture series in 2012 and included narratives of the formal discussants at the lecture sessions. The discussants, Andrew Delbanco of Columbia University, Howard Gardner of Harvard University, John L. Hennessy, President of Stanford University, and Daphne Koller of Stanford University and cofounder of Coursera, provide thought-provoking counterpoints to Bowen’s discourse in the two lectures.

This well-written book is a quick read that makes sense as an institutional, and even a higher education industry-wide reaction to the pressures of lower revenues, rising costs, and waning enrollments. Calling this the “cost disease” in higher education, Bowen describes how we reached this
predicament. He examines the potential of online learning delivery to help cure the disease that threatens the future of institutions in higher education. The respondents, each in their own way, give further insights into the causes and potential remedies for the challenges we face.

What we are missing in the book is a perspective from outside higher education—a societal perspective of learning, needs, wants, and knowledge that is not influenced by the writer’s involvement in higher education. For example, Stanford president Hennessy begins his section by proposing “that a residential liberal arts education is the gold standard to which higher education should aspire.” The premise, I believe is flawed. It is inherently institution-centric. The assumption begins with the institution, not the individual or society.

Arguably the wisest and most successful leader this continent has seen in the past 200 years is the product of a far different path of learning. Abraham Lincoln was not the product of the gold standard of a residential liberal arts education that the president of Stanford posits. Rather he was by most standards a learned man, often quoting great literature and leading this nation through its greatest crisis. Lincoln did not attend a college or even a traditional secondary school. He claimed he received one year of formal schooling in his lifetime. Lincoln was a famously self-educated man who availed himself of opportunities to read and study in tiny communities on the prairie. Without the benefit of that gold standard of education, he became a renowned lawyer, politician, strategist, and president.

Since the time of the lectures and the publication of the book, the symptoms associated with the cost disease have worsened. Enrollments in US higher education fell for the first time in 15 years in fall 2012 and the drop accelerated in the spring of 2013 (Lederman, 2013). The overall 2.3 percent decrease in higher education enrollments in spring 2013 struck all sectors of higher education, with the exception of private four-year institutions (Center, 2013). The average annual salary of a baccalaureate degree holder, age 25 to 34 was $40,000 in 2010. But 15 years earlier it was $50,000 in constant 2010 dollars (Statistics, 2012). Meanwhile the average cost of college after figuring in student aid packages rose 8.3 percent in 2012 while state support for higher education dropped by 9 percent (Hicken, 2013). If these trends continue for another year or two, we will see a waterfall of declarations of financial exigency, forced mergers of colleges, and even closures. A crisis is upon us.
The seeds of the technologies that are disrupting higher education today were sown deeply into the infrastructure of colleges and universities through research projects funded by DARPA, NSF, CDC, the Alfred P. Sloan Foundation, and a host of benefactors, more recently the Bill & Melinda Gates Foundation. It all started with the PLATO project, which began some 30 years before the Web. Combining self-paced, adaptive learning techniques with communication features, PLATO was an important learning innovation that forged many of the approaches that are driving changes in education today (Woolley, 1994). The online community that grew out of the PLATO project fostered the development of online courses. And from that came massive open online courses (MOOCs).

At the same time that we have seen a decline in enrollments at colleges and universities, millions of students have enrolled in MOOCs. Reaching around the world in a wide array of subjects with head-spinning speed of deployment, hundreds of MOOCs are being launched as documented by the MOOC (Class-Central, 2013). The varieties of delivery options, pedagogical approaches, engagement opportunities, and assessment modes continue to expand. Even entire degrees are to be delivered via MOOC modes (University, 2013). Certifications and badges proliferate.

Times have changed. And so too have societal needs, individual needs, technological means of access, and the extension of personal knowledge and memory beyond our individual brains to encompass worldwide networks and billions of others. We may have reached a tipping point where the cost disease and online opportunity combine to revolutionize higher education.

Higher education is not the first field that the Internet has disrupted. We have watched the disruption of the newspaper, magazine, and book publishing industry play out over the past dozen years. There are now 40 percent fewer news reporters than there were in 2001 (Sass, 2012). Revenues in the field have dropped by more than 50 percent since 2006 (Edmonds, 2013). Largely as the result of the impact of the decline in the industry, the job of newspaper reporter was listed as the “Worst Job in 2013” (Johnston, 2013). Changes in the associated fields of magazine publishing and book sales have followed suit. The final print edition of Newsweek after nearly 80 years of publication carried a twitter hashtag “#lastprintissue” signaling the online disruption (Hagey, 2012). The demise of Borders bookstores in 2012 after 40 years of operation is yet another example of online disruption in a field close to higher education (Leopold, 2011).
Like newspapers, print magazines, and bookstores, universities and other institutions of learning assume value through the perceptions of the people, the needs of society, and the economy of their access. An analogy can be drawn between reporters as researchers or information providers and the professoriate. Newspapers, large and small, are analogues to universities and colleges, mostly serving their regions, though some serving nationally, by providing research, information, and the opportunity to build knowledge. Newspaper and magazine subscription fees and university tuition rates, while at significantly different price points, both pale when compared to free online access. Certainly, there are many differences between the two fields, yet the similarities are striking. Newspapers and other print media were confronted with the advent of blogs, twitter, Facebook, Google, YouTube and other online media. Higher education is confronted with online competitors from around the world, most notably MOOCs.

Disruption guru Clayton Christensen of Harvard predicts that within 15 years half of the universities in this country, including state universities, will be in bankruptcy, adding that he will be excited to see this happen (Schubarth, 2013). This prediction seems remarkably consistent with what we have seen in the print news industry. Christensen’s excited anticipation of the shakeout has much to do with affordability and accessibility of higher education. The cost disease and new incarnations of online learning will take their toll by cutting costs to students and offering ubiquitous online access.

Our economy has changed, our commitment to higher public higher education has changed, and the learning needs of people have changed. It is clear that state governments are not in a position to support the residential campus for the masses as they had in decades past. I chronicle college and university budget cuts, furloughs, layoffs, and forced mergers daily in my blog, Recession Realities in Higher Education (Schroeder, n.d.). The 5,000 posts over the past four and a half years document the cutbacks. Yet seldom do I discover cuts in continuing education. More than ever, society needs lifelong learning in discrete increments, providing value just-in-time, up-to-date, flexible, and actionable learning opportunities. It is here that continuing education excels. And, it is online continuing education that may move to the core of the institutions that survive disruption of higher education.

In this important book William G. Bowen identified and sounded the early warning of the “cost disease” and the threat it poses to higher educa-
tion. His clarion call in the Tanner Lecture Series is critically important in that it identifies the culprit—spiralizing costs in the face of a lowered perception of value of the baccalaureate degree. Yet, what we are now coming to recognize is that this is only the first symptom of a wholesale disruption in higher education. Just as some of the largest and most prestigious newspapers in the country have filed for bankruptcy or been forced into extraordinary cost cutting measures, so too will some of the largest and most prestigious universities in the country be forced into similar circumstances. The elites will not be exempt from the effects of this disruption, which will affect all of higher education. Those universities that are to survive must remake themselves to become responsive to the realities of a 21st century world in which universities no longer hold a monopoly on information, knowledge, learning opportunities and credentialing.

REFERENCES