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Should Higher Education Be Free?

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In the United States, our higher education system is broken. Since 1980, we've seen a 400% increase in the cost of higher education, after adjustment for inflation — a higher cost escalation than any other industry, even health care. We have recently passed the trillion dollar mark in student loan debt in the United States.

How long can a business model succeed that forces students to accumulate $200,000 or more in debt and cannot guarantee jobs — even years after graduation? We need transformational innovations to stop this train wreck. A new business model will only emerge through continuous discovery and experimentation and will be defined by market demands, start-ups, a Silicon Valley mindset, and young technology experts.

Neither the pedagogical model nor the value equation of traditional higher education have changed much in the past fifty years. Harvard, MIT, Yale, Princeton, and Stanford are still considered the best schools in the world, but their cost is significantly higher today than two decades ago.

According to Rafael Reif, MIT's president, who spoke at the Davos conference this past January, there are three major buckets that make up the total annual expense (about $50,000) of attending a top-notch university such as MIT: student life, classroom instruction, and projects and lab activities.

There is a significant opportunity to help reduce the lecture portion of expenses using technology innovations.

According to the American Institute of Physics (AIP), as of 2010, there are about 9,400 physics teachers teaching undergraduates every September in the United States. Are all of these great teachers? No. If we had 10 of the very best teach physics online and employed the other 9,390 as mentors, would most students get a better quality of education? Wouldn't that lead to lower per unit cost per class?

Yes, you might argue the lack of "classroom experience" is missing. But when it comes to core classes which don't require labs or much in-person faculty interaction, does the current model justify the value-price equation?

What is traditional college education really worth?

In a recent interview, Laszlo Bock, SVP of people operations at Google, said, "One of the things we've seen from all our data crunching is that G.P.A.'s are worthless as a criteria for hiring, and test scores are worthless — there is no correlation at all except for brand-new college grads, where there's a slight correlation." Even more fascinating is his statement that "the proportion of people without any college education at Google has increased over time," leading to some teams in which 14% have not gone to college. "After two or three years," Bock said, "your ability to perform at Google is completely unrelated to how you performed when you were in school, because the skills you required in college are very different."

Mr. Bock's comments suggest that smart people can figure out how to pass college tests if they can master what the professor wants, resulting in great test scores — but this skill and knowledge has very little relevance to solving daunting business problems with no obvious answers.

Once leading companies embrace what Google is already doing, seismic shifts and breakthroughs will occur in college education. Maybe a two year college degree will be sufficient instead of four. Imagine a business model where you take two years of courses online with the world's best teachers, followed by two years in structured problem-solving environments. Driven by market forces, such new business models could emerge faster than we expect.

So what is happening now? Who are some of the new education providers experimenting with new business models?

Emerging new education models

There are three strong players with millions of students and thousands of course offerings, all for free and available to anyone in the world. Coursera, Udacity, and edX have over four million enrolled students in their Massive Open Online Courses (MOOCs).

All three uniquely (and differently) replicate the classroom experience. Each uses top-notch professors and technologies in a creative manner — but not without challenges. One of the authors (Jatin Desai) enrolled in a few courses to test out the environments and found that, just like in the traditional classroom, courses vary greatly based on who is teaching. Some professors use the technology brilliantly and others use it as minimally as possible. (Access to higher bandwidth greatly enhances the experience.)

These three are not the only ones in the MOOC movement; many others are quickly joining. In fact, the New York Times dubbed 2012 "The Year of the MOOC" and Time magazine said that free MOOCs open the door to the "Ivy League for the Masses."

According to a recent Financial Times article, many employers are unsure of what to make of MOOC education — unsurprising, since many new technologies and business models go through multiple evolutions. The good news, according to the article, is that 80% of respondents surveyed would accept MOOC-like education for their internal employee development. We can extrapolate from this survey that the employer demand for online education exists — and, moreover, that it is only a matter of time until universities and well-funded venture capitalists will respond to this white space in the market very soon.

Georgia Tech, in fact, has already responded; in January, it will begin offering a master's degree in computer science, delivered through MOOCs, for $6,600. The courses that lead to the degree are available for free to anyone through Udacity, but students admitted to the degree program (and paying the fee) would receive extra services like tutoring and office hours, as well as proctored exams.

In the near future, higher education will cost nothing and will be available to anyone in the world. Degrees may not be free, but the cost of getting some core education will be. All a student needs is a computing device and internet access. Official credentialing from an on-ground university may cost

more; in early 2012, MIT's MOOC, MITx, started to offer online courses with credentials, for "a small fee" available for successful students – and we're eager to see how Georgia Tech's MOOC degree will transform the education model.

What's next? How far are we away from new business models where MOOC-type pedagogy will dominate the first two years of college experience? When will most employers begin to accept non-traditionally credentialed MOOC-based education? And what will this mean for the education industry? With luck and ongoing innovation, perhaps the US's broken education system may be repaired.

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