Technological determinism in education?

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Technological Determinism in Education?

In a recent cover story, *The Economist* explores the future of higher education. Taking their title from the famous term coined by economist Joseph Schumpeter, “Creative Destruction” asserts that in higher education “a revolution has begun, thanks to three forces: rising costs, changing demand and disruptive technology. The result will be the reinvention of the university.”

This claim is not new nor are the external forces identified. What is interesting and surprising for *The Economist*, normally among the most thoughtful and analytically rigorous of the major mainstream publications, is the shallow analysis of the impact of technology on education and the simplistic characterization of higher education.

On the impact of technology, the magazine focuses on the role of MOOCs (Massive Open Online Courses) and asserts, with little supporting evidence, that the mere existence of such an educational option guarantees a certain future path for education. “By themselves, these two forces [rising costs and the demand for ongoing education throughout a lifetime] would be pushing change. A third—technology—ensures it. The internet, which has turned businesses from newspapers through music to book retailing upside down, will upend higher education.” They ignore the challenges that MOOCs have seen both in terms of student performance at places like San Jose State University and the movement of providers like Udacity away from this educational market. They also engage in a kind of technological determinism that would embarrass a college sophomore. A magazine based in the home of the Industrial Revolution should be more careful and modest when making assertions about the future impacts of technology!

The weakness of their analysis comes significantly from their simplistic model of higher education. Among the problems:

1. **Return on Investment.** They start their analysis by appropriately noting that college remains a great investment. “For most students university remains a great deal; by one count the boost to lifetime income from obtaining a college degree, in net-present-value terms, is as much as $590,000.” An article later in the magazine provides the details. Yet despite the high returns, the magazine assumes that because of rising costs, students will shift to lower cost options. That, of course, depends. If the lower cost option is a close substitute for the higher cost option, like Dunkin’ Donuts coffee for Starbucks, many consumers may switch. But are MOOCs good substitutes for a residential experience?
The evidence, as noted above, is not persuasive at this point.

2. **Residential Benefits.** The second weakness is to assume that education is all about the classroom or online experience. Educators, students and parents all know that a tremendous amount of learning takes place outside the classroom—on athletic fields, in music practice rooms, working on student publications, and on and on. This is rarely mentioned in discussions of online education. The article makes a superficial nod to the networking benefits of a residential experience ("Ambitious people will always want to go to the best universities to meet each other."), but completely ignores all the other benefits. American universities probably place more emphasis on the residential experience than other institutions around the world, but Cambridge and Oxford certainly value their debating societies and crew competitions.

3. **Product Differentiation.** *The Economist* story tries to make generalizations about education across the world, an overly ambitious goal, and in doing so takes the large, state sponsored university as the model. They ignore important differences across countries and within countries. Most importantly, they ignore the significant pedagogical differences between the broader liberal arts curriculum used by the vast majority of United States institutions and the more focused and often vocational model used in the rest of the world. The liberal arts curriculum that attempts to provide tools for learning across a lifetime may be better suited for a changing economy than a more vocational focus. If so, the American model may be better prepared to offer students what they need in the 21st century. Furthermore, the story largely blurs the public versus private distinction and completely ignores the small but important residential liberal arts model. The point is to simply note that we already have a very differentiated educational system. It is a plausible hypothesis that online education can be an additional offering to that rich menu without destroying all the other options.

4. **Flipped classroom.** Finally, *The Economist* ignores the possibility that current institutions will use the technology to change and improve their offerings in a way that will make them more attractive to students and potentially more cost efficient. Most institutions of higher education are well aware of the challenges and opportunities offered by new technology and are working to use technology to improve the education they offer their students.

In the end, the future of higher education is an empirical question for which the data will be provided by the market in the years ahead. Some think that there will be "mass bankruptcies within two decades," as technology drives traditional institutions out of business (as found [here](http://blogs.csbsju.edu/mhemesath/2014/08/04/technological-determinism-in-education/) and [here](http://blogs.csbsju.edu/mhemesath/2014/08/04/technological-determinism-in-education/)).

Others argue that the world will move to a skills and test-based university system as is currently used in the Brazilian model and is touted in the same magazine by *The Economist*.

I suspect that the future will offer an even richer, more differentiated array of options for students and parents to choose from—including online options for continuing education and narrowly focused topics, large public options that are less expensive than the privates, but still offer a residential experience and private, residential liberal arts schools that are expensive but viewed as worth the cost by many parents and students, as well as models that have not been dreamed up yet.

What I can say with great confidence is that the future is uncertain and those who claim to know otherwise should be viewed with skepticism.
About the Author: Michael Hemesath

Michael Hemesath is the 13th president of Saint John's University. A 1981 SJU graduate, Hemesath is the first layperson appointed to a full presidential term at SJU. You can find him on Twitter [at] PrezHemesath.