



## Mitchell's Musings 11-11-13: They Laughed at [fill in the name]

Daniel J.B. Mitchell

Back in the 1950s, I recall reading an article about some kind of new flour that was to be made out of cellulose. You could bake all kinds of tasty things with it, but it would pass through your system without depositing a calorie. It would thus revolutionize eating, dieting, etc. Then I never heard any more about it. But much later came Olestra, a kind of fat you couldn't digest that was also going to revolutionize eating and end obesity. It would pass through you just like one of those cellulose cookies. Only problem, it turned out, was that Olestra gave a minority of folks the runs. How could you find out if you a member of that Olestra-intolerant minority group? The main way to find out was to eat something made with Olestra and see if you got the runs. Let's just say Olestra was not a smashing success (although for some consumers it was a dashing success).

Of course, you would not want to be remembered as someone who predicted the success of some supposed great innovation like calorie-free foods that failed. But you do have some protection in such a case. If something failed, in time people will forget it ever existed and your prediction of its success will also therefore be forgotten.

Nonetheless, it would be better to have predicted that some new innovation would succeed and then actually have that innovation do just what you said. Best of all would be to predict that something new would succeed while others predicted it would fail – and then *you* turn out to be right! People will remember such minority predictions and your career as a futurologist is assured if you can score one.

As I see it, therefore, predicting that things will succeed has asymmetrical rewards that tilt toward being an optimist about innovations. We all know the phrase, "they laughed at [fill in the innovation or innovator]" as the comeback to any skeptics. There's even a Gershwin song that features it: <http://www.youtube.com/watch?v=TdLm9qRRdh4>. Keep predicting optimistically and eventually you will hit on something that does succeed. And people will remember that forecasting success.

I thought of this asymmetry while reading a recent piece in the *New York Times* predicting how online learning was going to revolutionize universities.<sup>1</sup> The title: "Innovative Imperative: Change Everything." Clearly, that's an attention-grabbing title. Not only does the title grab attention; one of the authors was a Harvard (!) professor. And, again, the piece was published in the *NEW YORK TIMES* (!). So there is hardly room for debate. But let's try.

In many cases, innovations succeed but do so over a long period of time. And the end result may simply be a modified version of what we already have. Indeed, the odd part about the *New York Times* piece is that it starts with anecdotal information on shipping. It notes that the first steam engine on a boat came along in the early 19<sup>th</sup> century and that eventually there were ships with both sails and steam engines in a hybrid format. Finally, there was just steam. But as the authors point out, the process of

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<sup>1</sup> [www.nytimes.com/2013/11/03/education/edlife/online-education-as-an-agent-of-transformation.html](http://www.nytimes.com/2013/11/03/education/edlife/online-education-as-an-agent-of-transformation.html)

replacing sails with steam went on for decades. Is that really “changing everything”? By the way, eventually those coal-fired steam engines were replaced on ships with diesel engines. Would you call coal-to-diesel a revolution? At the end of the day, there is still shipping which has evolved from sail to coal to diesel.

Some innovations, of course, have a faster impact than steam engines for ships. Some have an impact, but not the one anticipated. There was fear that phonograph recordings would put musicians out of business. In fact, they created new markets for music. Radio broadcasting was thought at first to threaten phonograph records. But by the 1950s we had the payola scandal in which record companies *paid* disk jockeys to play their records on the air to enhance sales.

There is a tendency to think that nowadays, technology is moving faster than it did in the past. But that tendency seems to be part of the modern era, probably going back to the Industrial Revolution. Remember the film “2001” made in the 1960s? By 2001, it suggested, we would be traveling into space routinely in airplane-like conveyances complete with 1960s-style flight attendants (or should I say stewardesses?) coping with weightlessness: <http://www.youtube.com/watch?v=aBKDA11nmHw> . Video calls by travelers could be placed from a phone booth on a satellite back to Earth (using the Bell System): <http://www.youtube.com/watch?v=h2ngWkwbWqs>. Computers would by 2001 be so advanced that they could be malevolent: <http://www.youtube.com/watch?v=qDrDUmuUBTo>.

Note that all of these prognostications were based on an impression of rapid advance in the 1960s. There was the moon-landing program at the time. There were big computers. All you had to do was project these developments ahead.

Of course, projecting ahead wouldn’t tell you that although computers have advanced in ways not foreseen in the 1960s, they have not become sentient beings. Sorry, Siri! There is no moon program nowadays, not in the U.S. at any rate. Indeed, the only way we currently can put someone in space is by renting passage from the Russians. THAT would have been hard to foretell in the Cold War 1960s. There was no more Bell System in the real 2001. But there are cell phones. We’re talking about less than four decades between the making of “2001” and its forecast year. And yet there were lots of things to get wrong.

The U.S. Bureau of Labor Statistics (BLS) over the years has calculated “multifactor” productivity indexes which supposedly take account of both labor and capital inputs into private business output. Despite the vagaries and inconsistencies involved, it doesn’t appear that recent trends in technology advance (for which such indexes are a proxy) are outpacing what was going on when “2001” was made. There did seem to be a dip in the rate of advance in the 1970s and 1980s. Various government commissions fretted over the dip in that era. But if there was a dip, it went away.<sup>2</sup>

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<sup>2</sup> Multifactor productivity 1948-73 was said by BLS to have advanced an annual rate of 1.7% in the private nonfarm business sector. [<http://www.bls.gov/opub/mlr/1988/05/art2full.pdf>] The trend bobs around from year to year and is affected heavily by the business cycle so it is best to look at cyclical peaks. From 1990 to 2000, the rate was

So getting back to higher ed, is online education about the “change everything”? It surely will change something. How fast that change will be occurring, I don’t know. Neither do the authors of the New York Times piece. What exactly will be the nature of the change and its effects on the higher ed “industry”? Again, I don’t know and neither do they. What I do know is they can’t go wrong with making an exciting prediction that online ed will change everything. If it works out, they will henceforth be geniuses. And if it doesn’t, chances are no one will remember.

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0.9%. From 2000 to 2007 (the last peak before the Great Recession), the rate was 1.4%. [Calculated from <http://www.bls.gov/news.release/prod3.t03.htm>].