Mitchell's Musings 8-5-13: Heads We Win; Tails You Lose in Online Higher Education

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Visitors to San Francisco will be familiar with the Bay Bridge connecting the city to Oakland and other jurisdictions. The Bay Bridge was a Depression-era project and was damaged in a major earthquake in 1989 that caused a temporary shutdown. It was repaired but in any event a major component of the bridge now needs a full replacement – which the state government has undertaken.

The replacement project has led to one scandal after another. A state inspector certified conditions without actually doing proper inspections. Various components of the bridge subsequently have turned out to be defective or to be substandard. A planned opening of the new segment of the bridge around Labor Day 2013 is now likely to be (much) delayed.

As with public construction more generally, the bridge replacement is not being carried out by state employees but rather by private contractors and suppliers. So what we have in this case is an illustration of what economists term the "principal-agent problem." That problem boils down to the question of how to get someone or some entity to do what you want. It shows up in supervisor-subordinate relations or owner-paid management relations. Usually, solutions to the problem involve some mix of incentives in pay and monitoring. It is clear that there wasn't a good solution achieved in the case of the Bay Bridge.

Although the Bay Bridge affair hasn't gotten much attention outside California, it has been closely followed within the state for obvious reasons. In one review of the Bay Bridge missteps, columnist Dan Walters of the *Sacramento Bee* recently pointed to research by Bent Flyvbjerg that referred to a more general problem in public infrastructure projects; there is a tendency toward cost overruns and excess optimism about such projects at the outset that leads to unfortunate and costly results.[1] Various explanations are offered for the tendency toward such behavior and such outcomes ranging from psychological to economic.

Now the title of this musing includes the phrase "online higher education" which doesn't seem to suggest anything about public infrastructure or the Bay Bridge. But there is an incipient principal-agent problem developing in online higher education as solutions are sought for high tuition and – in the case of public universities and colleges – cheap ways to reach masses of students. So-called MOOCs - massive open online courses – offered by commercial suppliers are being heralded with the same

[1] See http://www.sacbee.com/2013/07/28/5602376/dan-walters-is-bay-bridge-fiasco.html and http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2005/12/01/000016406_20051201094022/Rendered/PDF/wps3781.pdf. The Walters column actually refers to a later version of the study that appeared in the *California Management Review* in 2009: http://www.sbs.ox.ac.uk/centres/bt/Documents/Delusion%20and%20Deception%20in%20Large%20Infra%20projects.pdf.

optimism and the same potential for cost overruns and shoddy outcomes that have characterized the Bay Bridge.

As any human resource executive knows (or should know), there is no perfect solution to the principal-agent problem. Indeed, if there were, there likely would be no need for human resource executives. But there are approaches that can be of use. But the impossibility of perfection doesn't mean that no improvements are available.

A recent report on a MOOC at San Diego State University points to the problem. A commercial supplier implemented a MOOC with San Diego State that had to be halted when half the students reportedly flunked.[2] There is an analogy between that episode and the Bay Bridge, i.e., having to redo something that is already well underway. Flyvbjerg offered various partial solutions in the case of public infrastructure projects including pushing the costs of failure on to the supplier or at least sharing such costs. Otherwise the principal-agent problem becomes one of the agents running off with the principle! A system in which commercial MOOC providers can say "heads-we-win/tails-you-lose" is asking for trouble. Having some kind of independent and external monitor could also be helpful, especially if the monitor can impose penalties for lack of promised outcomes.

Right now, there are too many perverse incentives when it comes to MOOCs. Commercial suppliers have the obvious motivation to hype their wares. Legislators and governors who are faced with budget pressures want to have a plausible rationale when they squeeze higher ed budgets and complaints then arise over rising tuition. Saying there is a high-tech solution is a particularly fashionable rationale for public officials. As the pressure builds to implement the supposed high-tech solution, universities create internal bureaucracies to implement MOOCs and those departments themselves can become cheerleaders.

In short, it is often said that because MOOCs are new, we will just have to feel our way and see what happens. But in the end, MOOCs are similar to other projects – especially in the public sector – that are easily oversold. And since there is a history of problems with those other projects, it is time to examine that history before MOOCs become another Bay Bridge.

[2] http://www.latimes.com/business/la-fi-hiltzik-20130728,0,2408536.column.