A Short History of Education and Technology

Neil Selwyn: My name is Neil Selwyn, and I'm the author *of Education and Technology: Key Issues and Debates*. This is a short recording following on from chapter 3 of the second edition, where we looked at the history of technology use in education, and in particular the pre digital technologies of the twentieth century. Clearly, there is much that we can learn from the history of technology, so to get us thinking about these issues have a listen to the thoughts of another academic who researches and writes on the topic of education and technology.

Bill Ferster: Hi, my name is Bill Ferster. I'm currently a research professor at the University of Virginia's Curry school of education.

Neil Selwyn: Bill Ferster is a really useful person to hear from. We refer to his 2014 book *Teaching Machines* throughout our chapters, and I would recommend checking out his writing, alongside the writing of Larry Cuban if you're keen to explore this particular aspect of technology in education. Having read chapter 3, I was really interested to hear what else Bill would see as being significant in the history of technology in education throughout the twentieth century. So here's his response, where he focuses on the role that private sector commercial interests have long played in the introduction of technologies into classrooms.

Nowadays there's much concern over the role that venture capital plays in the development and promotion of educational digital technology, but, as Bill reminds us, this is not a new phenomenon. As he puts it, the development of technology has always costed money, so it's unsurprising that many of the old technologies that we covered in chapter 3 also had a commercial basis. In this response, Bill focuses on the example of early twentieth century correspondence schools. He argues that these developments during the 1900s offer a different perspective on how business interests and education interests might co-exist. This is something that seems to be being ignored by the current wave of EdTech investors and Edupreneurs.

Bill Ferster: Education and business are often strange bedfellows. Educational experiences apply a trust relationship between the student and the instructor not unlike the classical doctor patient relationship. Just as the doctor prescribes treatment on the basis of her training knowledge and experience, the instructor guides learning down a path based on his own wisdom. Both the patient and the student need to trust that the doctor and the instructor have their best interests at heart. Unfortunately, the introduction of money into the mix complicates this trust relationship, but in the real world it costs money to develop technology, and there's been a long history of business in the world of educational technology. Perhaps looking at some of these earlier efforts can be helpful here.

Around the turn of the twentieth century in America, commercial correspondence schools provided surprisingly good instruction that was distributed by the US postal system, and maintained an effective feedback loop with their students, albeit somewhat delayed. The Scranton based International Correspondence Schools were perhaps the most successful of these enterprises, and they didn't shy away from the capitalistic nature of their endeavours. The company's founder, Thomas Foster, unabashedly wrote in 1906 that it was a business, one with a product sold to customers, saying "This is a commercial enterprise. It is necessarily so." They invested heavily in producing custom text books which cost millions of dollars to produce, took rapid feedback to students seriously by employing a phalanx of women sitting in rows at desks to review homework assignments. The company also aggressively marketed their courses, even staffing a large encouragement arm to help struggling students and limiting student withdrawals.

Most educational technology and media companies these days are funded by venture capital firms who aggregate large amounts of money from investors and strategically put money into a number of small start up companies. They typically invest with the assumption that 90 percent of these companies will fail, but the few that thrive will yield an investment of at least 300 percent known in their parlance as a 3-bagger. These venture capital firms often provide a strong support network for these companies to help guide them, but their model has a darker side.

There's an inherent instability to any disposable relationship. The funded companies typically cede a significant amount of control in exchange for the millions of dollars they receive. When the company delivers the kinds of profits that funders see as significant, that control can be very constructive and nurturing, but if the company underperforms or takes longer to deliver than that investors want, it can find itself among the walking dead, with just enough capital to stay in business but not enough to grow. This funding method has worked very well in high technology, but I worry about the effective of its volatility on education. Students have traditionally relied on the longevity and stability of their institutions, and the basic venture capital model may weaken those properties. Venture capital funders seldom look too far down the road. Rather than having the legendary investor Warren Buffett, who's known for thoughtful and long term investments into companies that he successfully grows and nurtures, I worry that most educational technology companies are funded by groups more akin to Martin Shkreli, the 32 year old investor who became the poster child for bad corporate behaviour by raising the price of a drug used to treat pregnant women by over 500 percent.

Successful educational technology companies might take a few lessons from the correspondence schools from a century earlier. Their technology was slow and primitive by today's standards, but they embraced their capitalistic instincts and still tried to provide long term value for their students. Thank you.