

Moocs are no magic bullet for educating Americans



By Edward Luce

Methods of teaching make only marginal difference if content is irrelevant to the jobs market



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Optimists have scoured the dictionary for superlatives to describe the future of internet education. But the cult of the Mooc – massive online open courses – took a blow last week when one of its leading Silicon Valley pioneers, Sebastian Thrun, [described it as a “lousy product”](#).

Students taking Mr Thrun’s online courses at Udacity performed far worse – and dropped out in far higher numbers – than those with a human instructor. Mr Thrun, who invented the self-driving car, is at least temporarily dropping out of the business. Luddites everywhere will be feeling vindicated.

Yet the need to reinvent US education is more pressing than ever. If America’s college dropout rates are not persuasive enough – nearly half of US students fail to complete their four-year degree within six years – the fate of those who make it ought to be.

Graduate earnings have fallen 5 per cent since 2000. The college premium is still there but only because the earnings of those with a high-school diploma have dropped by far

more. Meanwhile, the costs of getting a degree continue to rise, which means the trade-off of taking on ever larger debt to boost future earnings keeps getting weaker.

Yet it makes only marginal difference whether a student gets his or her education from a computer or a real live human if the content is irrelevant to the jobs market. As the economist Tyler Cowen argues in his seminal book, *Average is Over*, there is a larger crisis in what US students are being taught. Content, rather than medium, is the problem. This is where online education comes in. Moocs can drive down costs to almost zero. Yet they will be hard-pressed to fix the cost problem if more than 90 per cent of their enrollees lose interest, which was the outcome of Udacity's much-hyped experiment. This is twice the attrition of mainstream students.

Washington's mindset is about getting students to be more like machines. But humans are destined to lose the race against the robots – just ask any chess grandmaster. The goal of education ought to be to complement rather than outrun the power of computers. Those unconvinced by Mr Cowen's plea for a revival of humanities should take a look at the US jobs market. According to the Harvard Business Review, the US has shed 750,000 jobs in the information sector since the turn of the millennium – second only to manufacturing in percentage terms. Yet information is precisely the sector to which US college degrees are increasingly tailored.

Given its implications, the HBR study has attracted less attention than it deserves. Its results show that Washington's goal of boosting the share of Americans who study science, technology, engineering and maths – the so-called *Stem subjects* – may be ill-conceived. It also puts Moocs in their place. Moocs can reduce costs and broaden access, both of which are highly desirable. But they have no special insight into tomorrow's labour market.

The trends in today's jobs market should be startling enough. Since 2000, the number of US computer-related jobs, including hardware and software engineers, has fallen by more than 100,000, according to the HRB, while those in telecoms, including equipment and line installers, has dropped by a stunning 567,000. These are big growth sectors, in terms of revenue and margins. But they are also most vulnerable to automation. The same is true of jobs in telemarketing (down 44 per cent), electrical engineers (37 per cent) and desktop publishers (39 per cent).

Contrast that with the jobs that grew. The number of library employees in America has risen a third since 2000. Jobs in acting were up 12 per cent, music directors and composers grew 35 per cent and writers and authors were up 6 per cent. Technology is reducing the need for most kinds of labour. At the same time it is vastly expanding the number of channels for creative output. That ought to make humanities – and the study of humans – more relevant. It makes no more sense for most people to study computer engineering than it does for air passengers to master avionics.

Where does all this leave the Moocs? As the techno-optimists keep pointing out, we can now download the Library of Congress and Ivy League lectures for free. A few motivated groups, such as older employees trying to keep pace, reservists in the US military and ambitious youngsters in places such as India, tend to finish online degrees. But most people, including Mr Thrun's enrollees, rapidly lose interest. The real challenge facing US educators, in other words, is to motivate the unenthused majority. This is far easier said than done. You can lead a horse to water but you cannot make it drink.

Insurance companies call America's millennial generation the "invincibles", because the young rarely worry about their health. But I prefer Mr Cowen's moniker of the "limbo generation", since they are worried sick about their financial prospects. The newest portion of the US workforce is saddled with more than \$1tn of debts in a market that isn't paying. Those who thrive in this less forgiving world will be savvy enough to tap the boundless resources they can get from Moocs in particular and the internet in general. Alas, Udacity's setback reminds us that they are almost certainly in a minority. At best computers can offer a partial answer to America's education crisis. Though we tend to cost more, the rest of it is down to human beings.