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Schumpeter

Angst for the educated

A university degree no longer confers financial security

Sep 3rd 2011 | from the print edition



MILLIONS of school-leavers in the rich world are about to bid a tearful goodbye to their parents and start a new life at university. Some are inspired by a pure love of learning. But most also believe that spending three or four years at university—and accumulating huge debts in the process—will boost their chances of landing a well-paid and secure job.

Their elders have always told them that education is the best way to equip themselves to thrive in a globalised world. Blue-collar workers will see their jobs offshored and automated, the familiar argument goes. School dropouts will have to cope with a life of cash-strapped insecurity. But the graduate elite will have the world at its feet. There is some evidence to support this view. A recent study from Georgetown University's Centre on Education and the Workforce argues that "obtaining a post-secondary credential is almost always worth it." Educational qualifications are tightly correlated with earnings: an American with a professional degree can expect to pocket \$3.6m over a lifetime; one with merely a high-school diploma can expect only \$1.3m. The gap between more- and less-educated earners may be widening. A study in 2002 found that someone with a bachelor's degree could expect to earn 75% more over a lifetime than someone with only a high-school diploma. Today the premium is even higher.

But is the past a reliable guide to the future? Or are we at the beginning of a new phase in the relationship between jobs and education? There are good reasons for thinking that old patterns are about to change—and that the current recession-driven downturn in the demand for Western graduates will morph into something structural. The gale of creative destruction that has shaken so many blue-collar workers over the past few decades is beginning to shake the cognitive elite as well.

The supply of university graduates is increasing rapidly. The *Chronicle of Higher Education* calculates that between 1990 and 2007 the number of students going to university increased by 22% in North America, 74% in Europe, 144% in Latin America and 203% in Asia. In 2007 150m people attended university around the world, including 70m in Asia. Emerging economies—especially China—are pouring resources into building universities that can compete with the elite of America and Europe. They are also producing professional-services firms such as Tata Consulting Services and Infosys that take fresh graduates and turn them into world-class computer programmers and consultants. The best and the brightest of the rich world must increasingly compete with the best and the brightest from poorer countries who are willing to work harder for less money.

At the same time, the demand for educated labour is being reconfigured by technology, in much the same way that the demand for agricultural labour was reconfigured in the 19th century and that for factory labour in the 20th. Computers can not only perform repetitive mental tasks much faster than human beings. They can also empower amateurs to do what professionals once did: why hire a flesh-and-blood accountant to complete your tax return when TurboTax (a software package) will do the job at a fraction of the cost? And the variety of jobs that computers can do is multiplying as programmers teach them to deal with tone and linguistic ambiguity.

Several economists, including Paul Krugman, have begun to argue that post-industrial societies will be characterised not by a relentless rise in demand for the educated but by a great "hollowing out", as mid-level jobs are destroyed by smart machines and high-level job growth slows. David Autor, of the Massachusetts Institute of Technology (MIT), points out that the main effect of automation in the computer era is not that it destroys blue-collar jobs but that it destroys any job that can be reduced to a routine. Alan Blinder, of Princeton University, argues that the jobs graduates have traditionally performed are if anything more "offshorable" than low-wage ones. A plumber or lorry-driver's job cannot be outsourced to India. A computer programmer's can.

A university education is still a prerequisite for entering some of the great guilds, such as medicine, law and academia, that provide secure and well-paying jobs. Over the 20th century these guilds did a wonderful job of raising barriers to entry—sometimes for good

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reasons (nobody wants to be operated on by a barber) and sometimes for self-interested ones. But these guilds are beginning to buckle. Newspapers are fighting a losing battle with the blogosphere. Universities are replacing tenure-track professors with non-tenured staff. Law firms are contracting out routine work such as "discovery" (digging up documents relevant to a lawsuit) to computerised-search specialists such as Blackstone Discovery. Even doctors are threatened, as patients find advice online and treatment in Walmart's new health centres.

Dreaming spires, meet pin factory



Thomas Malone of MIT argues that these changes—automation, globalisation and deregulation—may be part of a bigger change: the application of the division of labour to brain-work. Just as Adam Smith's factory managers broke the production of pins into 18 components, so companies are increasingly breaking the production of brain-work into ever tinier slices. TopCoder chops up IT projects into bite-sized chunks and then serves them up to a worldwide workforce of freelance coders.

These changes will undoubtedly improve the productivity of brain-workers. They will allow consumers to sidestep the professional guilds that have extracted high rents for their services. And they will empower many brain-workers to focus on what they are best at and contract out more tedious tasks to others. But the reconfiguration of brain-work will also make life far less cosy and predictable for the next generation of graduates.

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