

## University start-ups aim for the Facebook formula

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SEPTEMBER 1, 2017 Hugo Greenhalgh, Financial Times

Facebook started life in the pizza box-strewn Harvard bedroom of Mark Zuckerberg on February 4 2004. TheFacebook, as it was first known, grew rapidly as students logged on to keep up with their peers; the network spread quickly to other higher education colleges in the US.

Zuckerberg dropped out in his second year to pursue the company full time. Thirteen years later, Facebook has more than 2bn monthly active users and Zuckerberg himself is the world's fifth-richest person, with an estimated fortune of \$71bn.

But while Facebook might be the flag-flyer to which every undergraduate entrepreneur aspires, it also stands as the exception. Many university ideas falter through lack of funding or business acumen.

According to a 2015 study conducted on behalf of the Higher Education Funding Council for England, two-thirds of university start-ups and spin-outs said they faced "business constraints".

It is worth persevering, the report found. Basing the findings on 221,720 full-time graduates in 2011-12, the research revealed that there were almost 1,400 start-ups registered for the year, with an additional 10,000 describing themselves as self-employed or freelance.

The companies started, based on sales and turnover, were worth a little less than £3bn in 2013. And the gap between the number of male and female entrepreneurs is also being squeezed.

For full-time leavers in 2011-12, the ratio of men to women starting their own company while still studying was a relatively healthy 55:45 — an encouraging antidote to the oft-cited statistic that women account for just 17 per cent of UK business owner-managers.

UK universities have a long and storied history of innovation. LCD screens came out of Hull University; compact discs from Surrey University; and holograms from Imperial College in London.

"The trouble is all of these were commercialised out of the UK," says Alex Davies, chief executive of broker Wealth Club. "Typically a US venture capital fund would come along and take the value out of the UK."

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Arm Holdings, the semiconductor and software design company, which was recently sold to SoftBank Group, the Japanese telecommunications and internet company, for £24.3bn, was started in 1990 at Cambridge university. “But Cambridge never saw a penny,” Davies adds.

Universities have now moved to soften the common criticism that, while successful ideas factories, they are wilfully bad at creating sustainable companies. And so the university business incubator was born.

The government has also stepped up, investing £5.2bn into university incubators. In 2006, Gordon Brown, then UK chancellor, said that he expected universities to earn a proportion of their funding by proving their commercial viability. University business incubators unsurprisingly flourished.

The world’s first business incubator was founded in Batavia, New York in 1959 by Joseph Mancuso with the aim of stimulating employment. Now, university business incubators account for almost a third of the overall total, according to the Kauffman Foundation, a non-profit organisation.

Venture capital firms are taking note. Overall, investors sank \$63.3bn into US start-ups alone in 2015, with Stanford top of the list for graduates who started their own companies, according to a Bloomberg report.

Outside the US, graduates from the Indian Institute of Technology in Mumbai ranked top, with 14 start-ups, followed by the Hebrew University of Jerusalem.

Universities themselves are also getting in on the act. The University of California announced a \$250m fund to invest in homegrown start-ups. A few years earlier, Stanford said it would start to invest directly in students’ companies.

In the UK, Touchstone Innovations took Imperial’s technology transfer office public in 2006 to raise cash for spinouts. IP Group was born out of an Oxford deal and now invests in spinouts in the UK, US, and Australia, says Gregg Bayes-Brown of Oxford University Innovation. He also cites “the world’s largest university venture fund focused on a single institution”, Oxford Sciences Innovation, which has £580m under management.

“If anything, the US are playing catch up when it comes to university-driven bespoke capital for spinouts,” says Gregg Bayes-Brown of Oxford University Innovation.

Business incubators are now common at universities around the world. Scotland’s first incubator opened in Strathclyde in 1990; Egypt’s first was launched at the American University in Cairo in 2014.

In 2015, UBI Global, the Sweden-based research and advisory company, ranked SETsquared, a network of incubators at Southampton, Bath, Bristol, Exeter and Surrey, as the top university business incubator in the world. Since it was opened 13 years ago, SET has had more than 1,000 high-tech start-ups that have attracted more than £1bn of investment.

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Earlier this year, Future Planet Capital, a global innovation platform, announced the launch of a \$39m British Innovation Fund, designed to focus on the “commercialisation of research emerging out of UK universities”.

“For us, innovation is a new and profitable way of doing things,” says co-founder Douglas Hansen-Luke. “We’re looking for projects with the potential to work and make a profit.”

Future Planet also acts as a platform for some of the world’s largest sovereign wealth funds, scouting opportunities among emerging talent at universities around the globe.

But while opportunities abound, the number of ideas reaching start-up stage remains worryingly low. As Davies at Wealth Club points out, Oxford university might have approximately 1,500-2,000 research projects under way at any one time but 21 were spun out into a commercial venture last year. Just seven Cambridge projects saw the light of day last year. The vast majority of start-ups at both universities are active in life sciences.

For investors, these are certainly risky ventures, but they do have staying power. “Two-thirds of spinouts from 2000 are still trading; approximately one in 100 — 11 per cent — achieved an IPO or trade sale,” explains Davies.

So what can universities do? And how can venture capital firms and investors find the next NaturalMotion, the gaming company that started life at Oxford in 2001 and was bought for \$527m in 2014? Or the new Xeros, the polymer bead-cleaning system that started at Leeds and floated on Aim in 2014?

“If you can get in very early, you can hit very high multiples if you get it right,” says Davies. And it is not just about the financial return. It is a fascinating area in which to invest, he adds, as these are potentially offering “solutions to serious problems”.