

Business Education

Online Learning

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Educators embrace forces of change

Fears of disruption fade as campuses find they have lasting appeal, says *Jonathan Moules*

Business schools were braced for disaster less than five years ago, with the arrival of massive open online courses, or Moocs, and the platforms that hosted them.

They had watched as the digital revolution upended the music industry's business model. Previously lucrative compact disc sales plummeted as consumers switched to cheaper, faster digital music downloads and then to third-party streaming services. Could a similar revenue disaster befall the money-spinning business education sector?

Not quite. Early indications suggest

that, far from cannibalising existing revenue streams such as income from executive education courses, the availability of online content is broadening the reach of institutions.

Today, schools work in partnerships with Mooc platforms such as Coursera, so that interactive content and broadcast lectures complement study tours and time spent by students on campuses.

Data from the FT business school rankings show that downloadable lectures tend to widen the market for business education, to people who may otherwise have been unable or unwilling to

study for an MBA. Traditional classroom-based MBA programmes at top institutions are dominated by people working in the financial services and consultancy sectors, accounting for 24 per cent and 16 per cent respectively of the students, according to the FT's 2016 Global MBA rankings data.

Online MBA students, on the other hand, are much more evenly spread between sectors.

The FT's online MBA survey found that 16 per cent of students were from a financial services background and 6 per cent were from consultancies. The military, which provided just 2 per cent of

students in the MBA rankings data, was one of the larger groups in the research of online MBAs, accounting for 7 per cent of those taking such courses.

What is more, online offerings tend to attract students from more diverse backgrounds. The Wharton School in Pennsylvania reported that 78 per cent of those registering for one of its online business courses came from outside the US, compared with 14 per cent of those attending its executive MBA programmes, and 45 per cent on the full-time, two-year MBA.

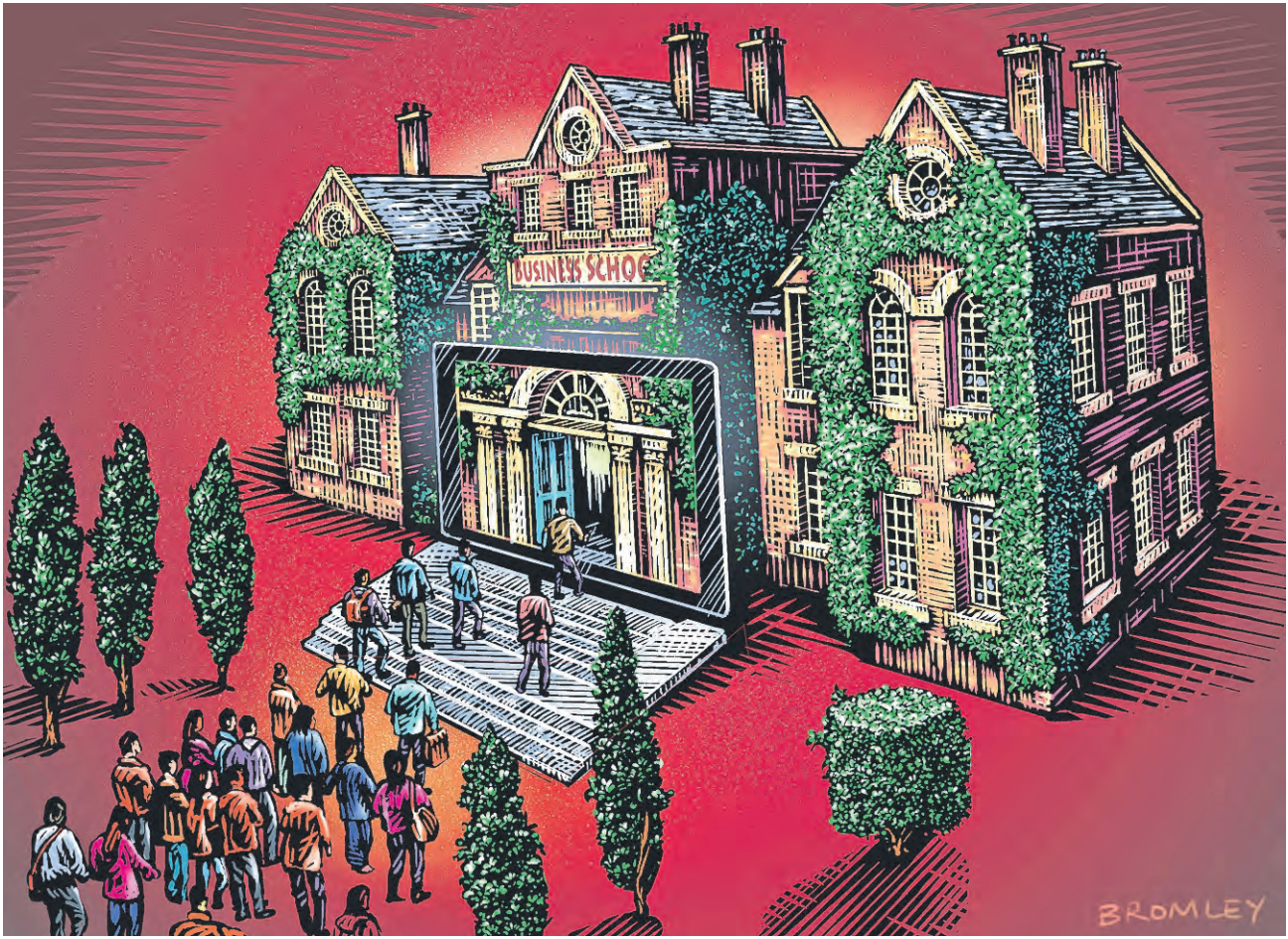
The Mooc platforms that stream online lectures, such as Coursera, edX,

Udacity and NovoEd, point to partnerships with the leading business schools as a sign of their credibility. Rick Levin, former president of Yale University, now chief executive of Coursera, talks about disrupting education while praising the value of his technology company's partnerships with leading business schools.

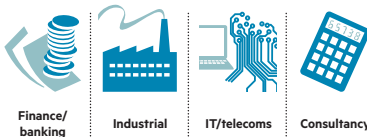
"These schools are not going away soon," Mr Levin says. "The residential experience and the whole package of attending a campus is too valuable."

Since it started streaming online courses in October 2013, UK-based

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Price is right for the next generation of digital courses

Moocs

Free tuition proved too expensive for many business schools to sustain, so modest fees have been introduced – with encouraging results, writes *Janina Conboye*

When massive open online courses emerged four years ago the thing that really caught the public imagination is that they were free. Thousands of people enrolled on courses provided by academic institutions on third-party Mooc platforms such as Coursera and edX and started studying subjects they would never have been able to access before.

But high-end online programmes require substantial investments of time and money. Also, with such large numbers of participants, many business educators and students questioned whether standards could be maintained. Some institutions, such as Oxford's Saïd Business School, decided not to offer Moocs or other online courses at all.

Today, many that did offer free programmes have switched to charging fees. HEC Paris ran free and open Moocs in 2012 via the Coursera platform. Now it offers a number of programmes on Coursera. But "free courses are expensive to deliver", says Nathalie Lugagne, HEC's associate dean for executive education. "So we decided to find new ways to monetise."

She devised an online corporate finance programme that costs €1,800 and awards a certificate on completion. It consists of three courses, featuring case studies and webinars, lasting six weeks each. Students sit a final exam. So far two cohorts of 400 students each have taken the programme.

Others have taken a hybrid approach. Harvard Business School runs HBX CORE (Credential of Readiness), an online course designed as a primer on the fundamentals of business. It costs \$1,800 and completion requires students to pass a final exam. The course combines Harvard's case-study approach to teaching with an online, community-based curriculum.

Patrick Mullane, HBX's executive director, says the course is not a Mooc.



Cost benefits: paying students are motivated to finish the course

Instead he describes it as an extension of Harvard's premium offering, which students are willing to pay for. "We were not interested in creating another Mooc platform," he says.

But do courses such as those at HBS and HEC go against the egalitarian nature of Moocs? HEC's Prof Lugagne says the courses are "inspired" by Moocs, but they are a different product that essentially offers already well-educated professionals a chance to extend their skills or prepare for an MBA.

'Developing Moocs has a cost — charging for them seems inevitable and reasonable'

Prof Mullane adds: "Our goal was to create a sustainable business model, which ensures we are able to continue to produce the highest quality business education courses."

Richard Barker, professor of accounting at Oxford's Saïd Business School, says Moocs should be a way for universi-

ties to contribute to society. An effective, non-commercial model would provide a great opportunity to share knowledge beyond those who attend the institution. "But it has got to be done well," he says. "[Some institutions] use Moocs as a marketing outreach tool, as a way for people to get to know the brand. But there's no need for us to do that."

Paid-for online courses might deliver high-quality education, but are they worth students' money?

Prof Lugagne argues that they are good value. She says the price of HEC's executive online certificate is still "very affordable" and helps the school fulfil its mission to provide education to the largest number of people. The certification awarded at the end of the course carries credits that can be put towards some of the school's degree programmes.

"In our experience, people expect to invest in the quality of education and interactive experience provided by CORE," says Harvard's Prof Mullane. He says HBS believes that when a student is paying for something, they are more motivated to get the most out of it, and the model is working.

"To date our completion rate for HBX CORE is about 85 per cent — far exceeding the average completion rate for Moocs," he says.

A University of Pennsylvania Graduate School of Education study of a million users of Coursera published at the end of 2013 found that completion rates averaged only 4 per cent.

For business schools, any online course, free or otherwise, is an expensive business. Academics have to take time to construct a course and gather teaching materials, while institutions are also funding research.

"Developing and funding Moocs or online programmes has a cost and charging for them seems inevitable and reasonable," says Prof Lugagne. The challenge, she adds, is finding the right business model that will preserve the quality of both teaching and learning, while keeping the courses affordable.

"The idea is easier than the execution," says Prof Barker. "It's expensive and time consuming to build a course that's worth doing."

He points out that HBS is not just pulling content out of text books. The goal, he says, is to deliver high quality, case-based learning to a wider audience, while also creating a sustainable business model.



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Business Education Online Learning

Financial Times Online MBA 2016

The top 15 online MBA programmes

The top 15 online MBA programmes							Career progress							Online delivery		Programme diversity							Academic indicators			Additional notes			
Rank in 2016	Rank in 2015	Rank in 2014	3-year average	Business school	Country	Programme name	Salary today (\$)	Salary increase (%)	Value for money rank	Career progress rank	Aims achieved (%)	Career service rank	Programme delivery rank	Online interaction rank	Women faculty (%)	Women students (%)	Women on board (%)	International faculty (%)	International students (%)	International board (%)	International mobility rank	Faculty with doctorates (%)	PhD graduates	FT research rank	Course fee (local currency)**	Average completion time (years)*	Online teaching materials (%)*	Rank in 2016	
1	1	1	1	IE Business School	Spain	Global MBA	178,569	39	9	3	78	4	6	3	38	36	46	62	94	84	1	98	18 (0)	7	€43,200	1.5	85	1	
2	2	2	2	Warwick Business School	UK	Warwick MBA by Distance Learning	143,799	32	5	1	75	2	7	10	32	27	20	78	57	20	2	100	97 (3)	3	£23,400	4	100	2	
3	3	4	3	University of Florida: Hough	US	Online MBA	114,128	31	10	13	74	3	1	1	32	28	12	24	1	0	14	95	35 (9)	3	\$53,437	2	83	3	
4	6	6	5	Durham University Business School	UK	Online MBA	128,844	36	1	4	77	14	15	15	33	30	35	57	61	35	3	98	95 (2)	12	£19,000	3.8	100	4	
5	5	5	5	Indiana University: Kelley	US	Kelley Online MBA	124,726	27	12	8	73	5	5	4	24	23	21	26	2	21	9	79	38 (11)	1	\$66,300	2.5	97	5	
6	7	7	7	Babson College: Olin	US	Babson MBA Blended Learning	146,486	22	14	2	72	6	10	6	37	36	16	13	3	14	7	83	0	13	\$82,016	2	72	6	
7	4	3	5	Northeastern University: D'Amore-McKim	US	Online MBA	136,856	23	13	5	61	12	2	2	31	39	21	22	3	5	8	87	0	6	\$73,800	3	100	7	
8	-	-	-	AGSM at UNSW Business School	Australia	MBAx	112,030	31	4	15	65	11	13	11	36	32	23	64	12	40	5	100	49 (0)	5	A\$52,200	4	100	8	
9	11	-	-	University of Massachusetts Amherst: Isenberg	US	Isenberg Online MBA	131,796	27	6	12	69	15	3	5	36	28	20	17	6	11	10	78	30 (7)	11	\$32,535	3	100	9	
10	12	10	11	Arizona State University: Carey	US	Carey Online MBA	108,186	26	11	10	69	9	9	9	24	25	9	28	1	2	11	91	45 (7)	2	\$58,000	2	100	10	
11	8	11	10	University of Bradford School of Management	UK	Distance Learning MBA	109,158	47	2	9	66	8	14	14	40	26	40	31	83	40	4	74	40 (0)	14	£16,500	3.5	100	11	
12	10	12	11	University of Nebraska-Lincoln	US	Online MBA	112,500	25	3	14	71	10	8	8	35	18	33	12	2	0	12	85	27 (0)	7	\$26,736	2.5	100	12	
13	14	-	-	Florida International University: Chapman	US	Corporate MBA	88,781	32	8	6	62	13	4	7	32	50	29	51	3	0	13	83	23 (0)	10	\$42,000	1.5	100	13	
14	15	14	14	Drexel University: LeBow	US	Online MBA	107,000	28	15	11	64	1	12	12	33	42	15	32	10	3	15	85	39 (0)	9	\$64,000	2	100	14	
15	13	15	14	Centrum Católica	Peru	Virtual Intl' Managerial MBA	90,666	18	7	7	63	7	11	13	15	24	31	41	16	85	6	95	2 (0)	15	S/64,500	3	90	15	

*Data in these columns are for information only and are not used in the ranking. *Average course fees (local currency)

IE's online MBA comes top for the third time

Analysis The Spanish business school's alumni are the highest paid and benefit from strong career progress, writes *Laurent Ortmans*

Spanish business school IE has scored a hat-trick by reaching the top spot in the Financial Times ranking of online MBA programmes for the third year in a row. IE came in ahead of the UK's Warwick Business School, ranked number two for the third year running, and the University of Florida Hough business school in third place.

The 15 ranked online MBA programmes provide flexible study options for working executives, who can expect to graduate with the same qualification as their full-time, residential MBA counterparts.

While the FT online and full-time MBAs are not strictly comparable because the criteria used to judge them are slightly different, it is interesting to note that IE and Warwick Business School are among six schools to feature in both rankings.

IE's online MBA consistently attracts high-calibre students. Half of IE's alumni were senior managers when they enrolled, the highest proportion among ranked schools at that stage. Three years after graduation they were earning the highest average salary at \$179,000, about \$30,000 more than the

next highest earners – alumni from Olin Graduate School of Business at Babson College.

IE's alumni have the second-highest average salary increase following graduation, at 39 per cent. The school is ranked first for aims achieved and for international mobility. It is third for career progress. "There is a definite 'before and after' for career progression," says one former student. "Post-MBA I felt I had more of a sense of direction not only of where I wanted to be, but also why, and how to make it happen."

The same seven schools continue to dominate the top half of the ranking. AGSM at UNSW Business School of Australia entered the ranking for the first time in eighth position.

A minimum of 70 per cent of the con-

'Post-MBA, I had more of a sense of . . . not only where I wanted to be, but also why'

tent must be delivered online in order for programmes to be eligible for the online ranking. Nine out of the 15 ranked schools had no requirement to study on campus at all. The remaining six schools insisted their students attend weekend or week-long residential classes.

Schools relied on a wide range of technologies to ensure lively interac-

tive delivery of their programmes including virtual classrooms, live sessions and multimedia teaching materials. Alumni were asked to rate delivery as well as indicate how effective online exams were. Results were encouraging. Schools appear to be getting better at online delivery. Every aspect of online delivery was rated higher than it had been in previous years, showing a greater level of satisfaction.

"I was quite sceptical initially in doing an online course but the communication and online interaction were perfect," says one graduate from AGSM.

Overall, live and recorded content achieved equal scores overall of 8.8 out of 10, while online interaction and teamwork were rated marginally lower.

Part of the appeal of online programmes lies in their flexibility, reach and slower pace of delivery than campus-based MBAs. Apart from IE, which imposes an 18-month time limit, participants have on average about five years to complete their degrees.

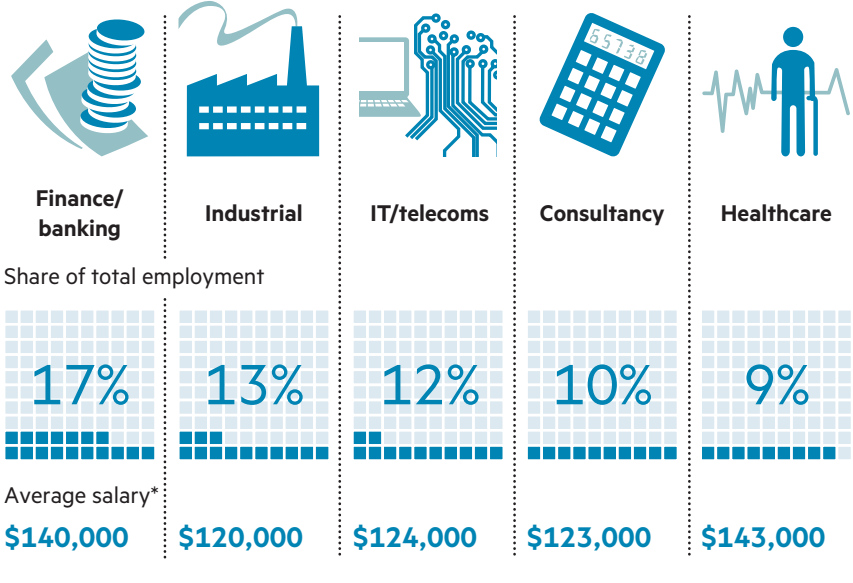
Having longer does not seem to make it easier, however. Proper time management is essential in order to maintain the momentum.

"A couple of obligatory projects would help keep the pace and avoid a very intense last quarter," commented one graduate from Warwick Business School. Overall, the graduates from the class of 2012 took slightly longer than 2.5 years to graduate.

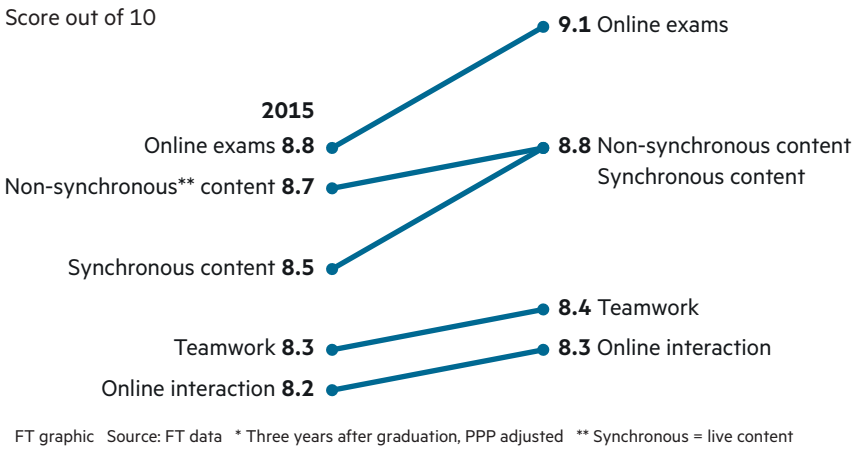
Online programmes appeal more to senior professional students than those who take full-time programmes. Participants on online MBAs are aged 34 on

What the rankings reveal

Top five sectors of employment



Effectiveness and quality of delivery



average compared to 28 for full-time participants. Online students are also more likely to seek a promotion following the course with their existing employer. While the majority of full-time MBA graduates (90 per cent) worked for different companies three years after graduation, only about 55 per cent of online graduates did so.

They are also less likely to seek employment in a different sector after

graduation. Only 30 per cent changed industry sector compared with nearly two-thirds of full-time MBA students.

One might expect that online programmes would appeal proportionately more to women than full-time programmes due to their flexibility. However, data from the 2016 rankings show that women account for 30 per cent of enrolled students compared with 35 per cent for full-time programmes.

Key

Note: Weightings in brackets
Salary today (20): average alumnus salary three years after graduation, US\$ PPP equivalent +
Salary increase (10): percentage increase over three years: between salary on graduation in 2012 and current salary
Value for money (3): calculated according to alumni's salary, fees and other costs +
Career progress (4): progression in the alumni's level of seniority and the size of company they now work for, versus three years ago +
Aims achieved (4): the extent to which alumni fulfilled their goals +
Career service (4): alumni rating of the efficiency of the school career services in finding them a job after graduation +
Programme delivery (5): alumni rating of online delivery of live teaching sessions, other teaching materials and online exams +
Online interaction (10): alumni rating of interaction between students, within teams and the availability of faculty +
Women faculty (2): percentage of female faculty +
Women students (2): percentage of female students on the MBA programme +
Women on board (1): percentage of female members of the school advisory board +
International faculty (4): percentage of faculty whose citizenship differs from their country of employment
International students (4): percentage of current MBA students whose country of residence differs from the country the school is located in
International board (2): percentage of the board whose citizenship differs from the country in which the business school is situated.
International mobility (5): calculated according to whether alumni's citizenship and work locations pre-MBA, on graduation and three years after graduation differ from each other +
Faculty with doctorates (5): percentage of full-time faculty with a doctoral degree
PhD graduates (5): number of doctoral graduates during the past three years. The figure in brackets is the percentage of these graduates who took up faculty positions at a top 50 full-time MBA school
FT research rank (10): calculated according to the number of articles published by a school's current full-time faculty members in 45 academic and practitioner journals between January 2013 and December 2015

* Includes data for the current year and the one or two preceding years where available.
* Schools that have 50:50 (male: female) composition receive the highest possible score.

How the 2016 FT rankings were researched and compiled

Methodology

Survey data from students accounts for 65 per cent of the weightings, writes *Laurent Ortmans*

This third annual Financial Times ranking evaluates the world's best online MBA programmes. A total of 18 programmes took part in the ranking process. Data for the rankings are collected from participating schools and alumni who graduated from their nominated programmes in 2012, giving us time to measure their career progress.

To be included, each school must be internationally accredited by AACSB and/or EQUIS and its programmes must have run for at least four consecutive years. At least 70 per cent of the

programme content must be delivered online. Participants on the courses must pass a selection process before enrolling and an examination process before graduating.

A total of 610 alumni completed the FT survey, a response rate of about 24 per cent. For schools to be ranked, 20 per cent of their alumni must respond to the survey, with at least 20 fully completed responses.

Alumni responses inform six ranking criteria that are common to all FT business education rankings, such as "salary today", and two additional criteria specific to the alumni's online experience: "programme delivery" and "online interaction". Together, the alumni criteria account for 65 per cent of the ranking's weight.

Where available, information collated by the FT over the past three years is used for alumni-informed criteria.

Responses from the 2016 survey carry 50 per cent of total weight, and those from 2015 and 2014 25 per cent each. Excluding salary-related criteria, if only two years of data are available, the weighting is split 60:40 if the data are from 2016 and 2015, or 70:30 if they are from 2016 and 2014. We consider the two most recent years for salary data and give each year a weighting of 50 per cent.

"Salary today" is based on current alumni salaries. Salaries of non-profit and public sector workers, as well as full-time students, are removed. Salaries are converted to US dollars using purchasing power parity (PPP) rates supplied by the International Monetary Fund. The very highest and lowest salaries for each school are subsequently removed, and the mean average current salary is calculated. The resulting figure carries 20 per cent of the ranking's weight.

"Salary increase", which accounts for 10 per cent, measures the difference in the alumni average salary on graduation and three years after. Half of this figure is calculated according to the absolute increase and half to the percentage increase.

"Programme delivery" is rated on how alumni rate the online delivery of teaching and exams. "Online interaction" is based on interaction between students and with faculty.

Information provided by the business schools accounts for 35 per cent of the final ranking. With the exception of the "doctoral rank" category (measuring the number and progress of doctoral graduates from each school over the past three years), the FT uses 2016 data only from the schools.

The FT research rank, which accounts for 10 per cent of the ranking, is calculated according to the number

of articles published by schools' full-time faculty in 45 internationally recognised academic and practitioner journals. The rank also takes into account for the first time the school to which the journal's editors are affiliated, earning schools an extra point should they also appear in the ranking.

The FT Online MBA ranking is a relative ranking – an FT score is finally calculated for each school. First, Z-scores – mathematical formulas that reflect the range of scores between the top and bottom school – are calculated for each respective ranking criterion. These scores are then weighted, and added together for a final score.

Judith Pizer of Jeff Head Associates acted as the FT's database consultant. The FT research rank was calculated using Scopus, an abstract and citation database of research literature.



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Business Education Online Learning

Is adding Moocs to your CV finally about to pay off?

Prospects

Employers are beginning to take notice of certain high-quality courses, writes *Barney Thompson*

The marketing spiel exudes confidence: “Get the job you want in 2016!” But the connection between massive open online courses (Moocs) and future employment is not so clear. Over the past five years, Moocs have become an educational ecosystem offering a diverse array of programmes. But while the attraction for employees is clear – new skills taught by leading universities and offering official certificates – it is less obvious that employers have fully woken up to the possibilities of Moocs. Mooc providers themselves are keen to show how former students went on to get their dream jobs. Such stories are a commonplace sales pitch on many Mooc platforms.

The opinion of employers is harder to gauge. None of the main employers’ groups in the UK contacted by the FT were keeping data on the role of online courses in recruitment. “Moocs have not penetrated every part of the business world,” says Perry Timms, adviser on social media and engagement to the Chartered Institute of Personnel and Development (CIPD), the UK professional organisation. “There are still times when I say ‘Moocs’ to people and they say, ‘what?’” But business recognition of online learning in general and Moocs in particular is improving, Mr Timms adds. “It is an exciting area – it needs more focus, but Moocs are quietly humming along. They have not been a massive revolution but they are becoming another aspect of what businesses look for.” That is true of some sectors in particular, such as data analysis, marketing and IT. Almost every Mooc platform has a strong offering in those areas, with some dedicated to them almost exclusively. Of the top 10 most popular courses of 2015 on Coursera, the largest

commercial Mooc platform, three were about programming, two were about data science and another was on machine learning. Two more were more broadly business-focused – financial accounting and negotiation – while the other two came under the general heading of self-improvement: learning how to learn (the year’s top course), and Tibetan Buddhist meditation. ‘There are still times when I say “Moocs” to people and they say, “what?”’ Perhaps therein lies the problem business has with Moocs. While all of the above were offered by top US universities, the Mooc universe is bewilderingly diverse. For an employer to take notice, the Mooc portfolio on your CV has to be extremely focused. “Businesses recognise that Moocs are an accessible way to a high-quality

education [but] choosing the right provider is essential if courses are to meet their objectives and hopes of the participants,” says the Confederation of British Industry employers’ group. There are signs that Moocs are gaining a toehold within business, however. For example, in the UK Marks and Spencer has developed a course – called Innovation: the Key to Business Success – in partnership with the University of Leeds and hosted on the FutureLearn platform. More than 26,000 people in 70 countries have taken it so far. HEC Paris, the management school, and Axa Investment Managers will launch a Mooc in April teaching asset management on the Coursera platform. Governments have taken them up, too, both to train the general population and their own employees. Saudi Arabia’s labour ministry has set up a Mooc portal with edX to educate women and young people, while civil servants in the Scottish government enrolled on a course entitled “Transforming Business, Society and Self with

U.Lab”, also on edX, before extending it to the general population. As a general rule, Moocs appear to be most effective in the jobs market when they are targeted at narrow objectives. This is probably because, as research has shown, most people who enrol on Moocs are already employed full time, are well-educated residents of developed countries and tend to use courses specifically to improve their careers. But as a recent survey of 52,000 Mooc users found, those in developing countries are more likely to report tangible benefits – such as a new job or starting a new business. The researchers – from Coursera, the University of Pennsylvania and the University of Washington – found that people already in high-skilled jobs were likely to benefit most from “up-skilling” to improve themselves in their current position, labelled an “intangible benefit”, whereas those without high-skilled jobs were more likely to benefit from “re-skilling to transition to a new job”, a more tangible effect.



Educators embrace forces of change

Continued from page 1 FutureLearn, a platform backed by the Open University, has enrolled almost half a million students, a fifth of whom have not studied at university and 62 per cent of whom are women.

This may indicate a latent demand for learning that can be tapped only by online education, says Simon Nelson, chief executive of FutureLearn. But he also thinks that demand is an opportunity for business schools, not a threat. “Rather than committing to 12 to 18 months away from work and a serious financial outlay, new students can access high-quality courses from leading business schools at a time and place that suits them,” he says. “For business schools, a taster course is a great way to encourage students to consider a full MBA and widen the pool of students.” The fear that people may bypass business school altogether, because they would be able to cobble together an MBA for free from certificated Mooc programmes, has proved largely unfounded. However, several fast-growing start-ups are trying to provide a rounded education, and are claiming some success – such as London-based teaching app SmartUp. The app is aimed at entrepreneurs, who in the past may have been less inclined to attend business school.

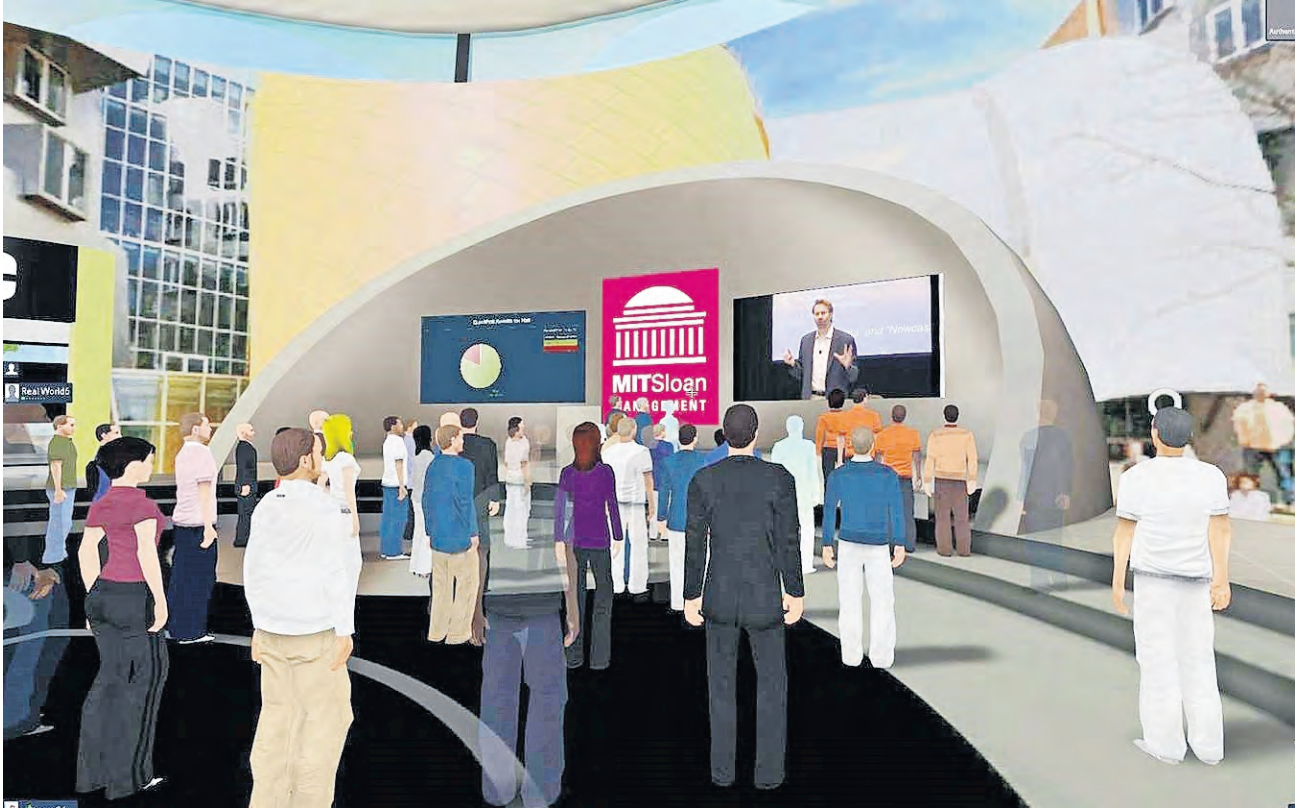
Their success suggests that disrupters and schools can both benefit from a market expanded by new techniques, such as games to promote learning and exchanging online credits earned by playing the game for business services. Online education has also gained formal endorsements from exam bodies, blurring the lines between study at a computer and on a campus. EFMD, the Brussels-based accreditation body for management education, last month launched its online course accreditation system. The move acknowledges that online education can “open up more efficient and effective” ways of learning, according to David Asch, EFMD quality services director. Alison Davis-Blake, dean of the University Of Michigan’s Ross School of Business, claims that demand for traditional programmes has risen even as her staff members have seen strong demand for the online courses put on the Coursera platform. Almost 850,000 people have enrolled on Michigan Ross’s most popular course on the Coursera platform, Introduction to Finance, since it was launched in 2012. Its successful Mooc on negotiation skills has attracted close

How Hurricane Sandy helped the rise of the student avatars

Virtual reality Visual representations of scattered classmates can aid interaction, says *Sarah Murray*

In 2012, with Hurricane Sandy barreling up the US east coast, the MIT Sloan Executive Education team was in a quandary. They could cancel the on-campus session starting the morning Sandy was due to hit Boston, but many of 100 or so course participants had already arrived. The solution was for those unable to make it to attend in virtual reality. Once the physical classroom, in a hotel meeting room in Boston, was connected with a virtual classroom, those not there in person could participate using avatars and a live video feed from the meeting room. A virtual roving microphone in the virtual classroom allowed the avatars to speak to people in the physical classroom, who could watch their fellow participants in the virtual classroom via large screens set up in the hotel room. The experiment was a success. “The faculty and participants in the physical classroom thought this was interesting,” says Peter Hirst, associate dean of executive education at MIT Sloan School of Management. “It was a once-in-a-lifetime opportunity to try something out that might have been difficult to persuade people to do otherwise.” Sloan now regularly uses avatars and

virtual classrooms as online learning tools and it is not alone. Since last year, Stanford Graduate School of Business has offered a virtual reality experience to distance-learning students on its LEAD certificate programme. So far, says Peter DeMarzo, faculty director for educational technology at Stanford, it has proved a useful addition to other forms of virtual communication. “We also use [online conferencing tools] Google Hangouts and Adobe Connect,” he says. “But we find there’s something unique about having a virtual three-dimensional space we can interact in.” Within the virtual environment, students can take their avatars to work on team projects before returning to the main space to report back to the rest of the class. While the platforms used by Stanford and MIT Sloan do not offer superheroes or fantasy characters as avatars, students do have the option of changing certain things about themselves. “My former boss came in to one of our programmes,” says Mr Hirst. “She’s a short, dark-haired lady and in the virtual world, she was a 6ft blonde.” Other features include proximity-based audio, which allows students to



Virtually there: students at MIT Sloan take their avatars to class

move to another part of a virtual room and have a conversation that others cannot hear. “That turns out to be really helpful in debates,” says Mr Hirst. Nevertheless, virtual reality is more applicable to certain parts of the business course than others. “It lends itself to topics that rely on soft skills,” says Mr Hirst. “Learning how to calculate net present value [can be done] more effectively in a more traditional online learning environment.” And the technology has limitations, particularly as it requires high-speed broadband. “Virtual reality is a high-calorie network experience,” says Ashita Saluja, a senior manager at Salesforce Marketing Cloud and a Stanford LEAD executive programme participant. “But in executive education, it’s normal to be in a meeting in a hotel or at an airport – and there you’re not talking great internet connections.” Ms Saluja also found that some adapted to the virtual environment more quickly than others. “There’s a discomfort and people’s barriers to getting over that varies,” she says. For one school, virtual reality was an interesting experiment but did not prove to be its most effective tool. After two years using avatars, Lake Forest

‘My former boss is a short, dark-haired lady. In the virtual world, she was a 6ft blonde’

Graduate School of Management decided to phase them out. The principle reason, explains Bryan Watkins, vice-president and chief academic officer, was that the Illinois-based school relies entirely on business practitioners, rather than full-time members of staff, for its faculty and students wanted to see their professors on video rather than as avatars. “Students wanted more interaction with the faculty,” he says. Nevertheless, some have found that virtual reality is an effective way for students who are separated geographically to come together. “Traditional videoconferencing is great for presentation and having students respond to the presenter,” says Fernando Contreras, associate director for extended learning at Stanford Graduate Business School. “But there’s a higher engagement between the participants in the virtual environment.” For Ms Saluja, a visit to Stanford for one of the face-to-face sessions revealed another more unexpected benefit to having spent time in the virtual reality environment. “It was so easy to find my way around the actual campus,” she recalls. “Because I already knew it through the virtual campus.”

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Wide appeal for try-before-you-buy model

Demographics

Study shows less privileged students report more tangible career benefits, writes *Ian Wylie*

In the early days of online learning, schools and students were optimistic that the advent of Moocs (massive open online courses) would revolutionise business education. However, an evaluation published in September by Stanford University professors John Mitchell, Candace Thille and Mitchell Stevens suggests that most Mooc students to date have been college-educated men from industrialised countries. Course completion rates, they discovered, remain low. Without a solid academic background, or face-to-face instruction, the classes may be proving too difficult for many students to follow. So far, not-so-good. Yet for all the flaws in the design of online learning programmes and Moocs, there are signs that such courses are beginning to introduce business schools to a wider and more diverse audience. Separate findings from online course platform Coursera by academics at the

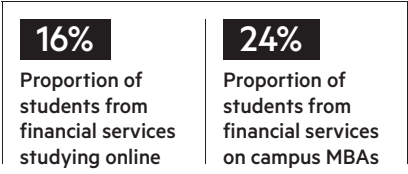
University of Pennsylvania and the University of Washington suggest that people with lower socio-economic status and with less education are more likely to report benefits from online learning. The survey of 780,000 people from 212 countries found that in developing nations, online learners with lower levels of socio-economic status and education are significantly more likely to report tangible career benefits. They also found that older people are using Moocs to prepare for an eventual return to education. For some students, a free, or inexpensive online course is an priceless try-before-you-buy taster. “It’s very easy to start a course, but it takes a lot of effort and commitment to finish it,” warns Zhdan Shakirov, a student from Russia who took the Foundations of Business Strategy Mooc run by Darden School of Business the US. Two years later, he has gone a step further and enrolled on a Darden MBA, becoming the first international student on its dual MBA/MED programme. So far, Darden’s Moocs have reached more than a million learners, says senior assistant dean Michael Koenig. The large majority have at least a bachelors degree, more than half are employed full-time and about half are from the US.

A fifth of those enrolled live in Africa, Latin America or Oceania. According to Mr Koenig, most online students are taking courses for career benefit. Similarly, Coursera estimates that about half of the site’s nearly 18m learners are using Moocs to advance their careers. Increasing awareness of Moocs also means a growing number of employers are recognising them as “micro-credentials” – 57 per cent of employers polled by Duke University said they plan to accept Moocs as qualifications when recruiting new staff. Helen Bowman, a US resident who describes herself as an “engineer turned stay-at-home mom”, says she usually takes online courses just to explore interests. Most recently, however, she took the Codapps Mooc on coding for entrepreneurs at EMLyon. “I had considered developing my own mobile apps so I was already predisposed to the idea,” she explains.

Barbara Drexler: more than a quarter of the students on Frankfurt’s online programmes are based in Europe



Dan Evans, chief innovation officer at EMLyon, says the school’s Moocs are also proving popular among students on full-time programmes such as the MBA or specialist masters programmes. “The Moocs offer them a great resource to upskill in a specific area on top of their studies and we try to provide extra credit opportunities for students who do this,” he says. There are signs of increasing diversity. Alison, an online learning business with 5m students, reports it is seeing significant growth in India, Latin America, and African countries and that 23 per cent of its learners this year accessed Alison via a mobile device, up from 12 per cent a year ago. At French business school Skema, 2,057 participants from more than 50 different countries have enrolled on its latest Mooc on globalisation, says Sophie Gay Anger, who is in charge of pedagogical innovation for the school. Barbara Drexler, associate dean of international affairs at the Frankfurt School of Finance and Management, says only a quarter of the students enrolling on its e-learning certificate programmes are based in Europe. About 30 per cent of Frankfurt’s online students come from sub-Saharan Africa and another 25 per cent live in Asia.



to 430,000 enrolments since it launched in October 2014. At the same time, MBA applications for the 2014/15 academic year were up 30 per cent year on year at Michigan Ross and have risen a further 6 per cent this year. “The people who are taking a single Mooc are very different from the people who are coming to the campus to study for a degree,” Ms Davis-Blake says. Despite its success in online education, Michigan Ross has only recently introduced its first paid-for certificated online education programme, reflecting a widespread belief among academic management that online courses are more about raising awareness of the school’s brand globally than generating additional revenue. Good online learning should be aligned with the needs of students, according to Tony Sheehan, associate dean for digital learning at London Business School. “Students on our degree programmes grew up with Google,” he says. “Digital transmission of knowledge is wonderful but the very best way of learning the art and science of management and business will always include face-to-face interaction in a community of the curious.”

Business Education Online Learning

The next academic revolution will be televised

Teaching Staff are discovering new ways to put their message across, writes *Brian Groom*

For staff used to teaching face to face, the new world of videos, live streaming, webinars and online forums takes some getting used to.

They understand that it helps students, democratises education and enhances their institution. Some are enthusiastic early adopters. Yet for others, talking to a camera can be disconcerting.

“The first time is horrible but when you have done 10, it starts getting normal,” says Sandra Sieber, professor of information systems at Iese, the Barcelona-based business school. “We have to learn and adapt to the new environment,” she says. “This is the moment when I am starting to feel old – and I am 40-something.”

Online learning for MBA students has been around for up to 20 years in some institutions. At first it was largely a matter of videoing lectures, which some students criticised as boring, but techniques have become more sophisticated as technology has advanced.

Talking heads can be interspersed with video and audio clips, graphics and opportunities to ask questions or take part in polls. There are online discussion forums. Seminars and team projects are undertaken via video group conferencing. Business schools have created studios and e-learning teams to support teaching staff.

Iese says it has embraced digital learning across its programmes and also runs massive open online courses (Moocs) via the Coursera platform.

Prof Sieber was until recently academic director of Iese’s global executive MBA, much of which is taught digitally.

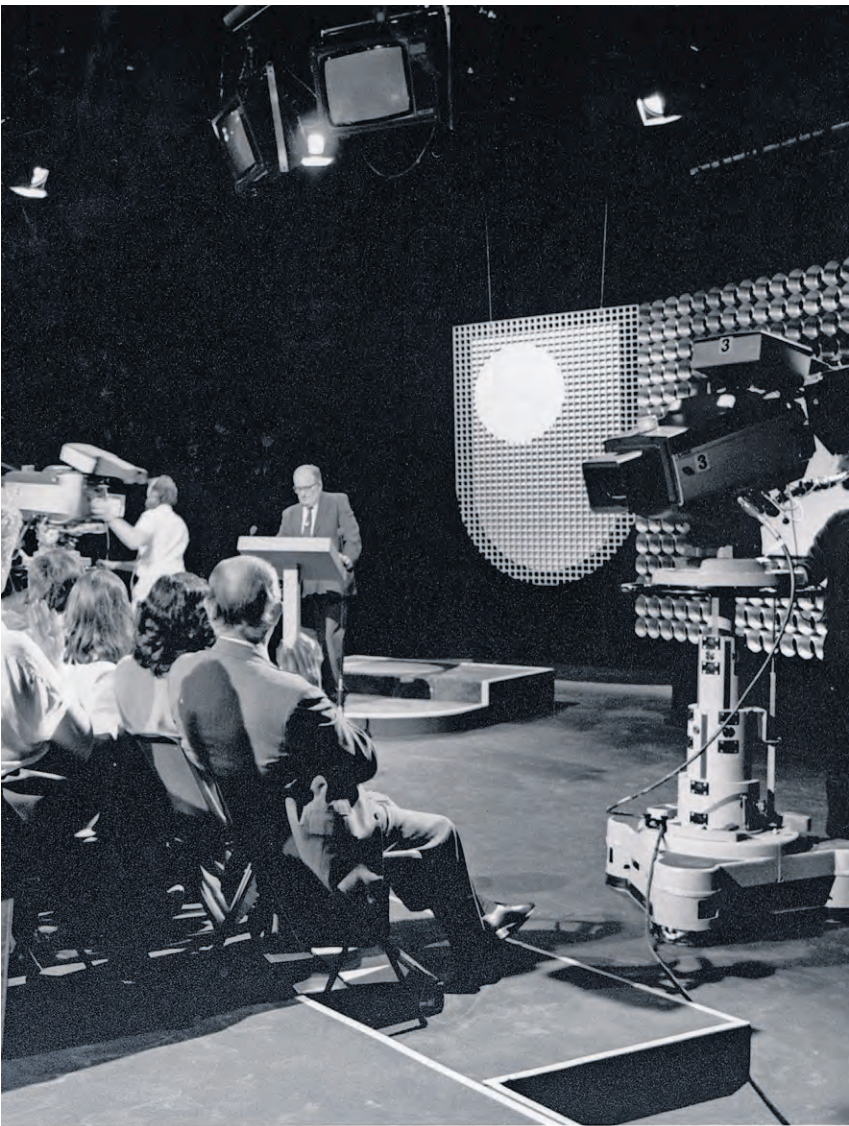
She says the school began by providing case studies and financial analysis online, but has moved on. Videoconferencing, for example, allows group role playing assignments in which a student might pitch to an “investment committee” made up of his or her peers.

A big challenge is keeping students engaged. “You don’t necessarily see who is bored and who is engaged, so we need to find new ways of engagement in our sessions,” Prof Sieber says. That means talking in five- to seven-minute segments instead of 45 minutes and building in “moments of interactivity” such as a poll or a question.

Ray Irving, director of e-learning at Warwick Business School, says: “There has been a real revolution in the last couple of years when we have seen more convergence between face-to-face learning and online learning.”

Warwick runs a distance learning MBA and has offered Moocs on topics such as behavioural science and big data via FutureLearn, an Open University platform. Now it is applying online techniques to on-campus courses, such as streaming a guest lecturer who might be based abroad.

Mr Irving heads a 15-strong e-learning



On camera: it has always been hard to keep students engaged — Open University/ BBC

team that teaches academics how to deliver their material in front of a camera. “We go through dry runs, provide autocues, we talk about what they should wear, how they should sit, we will break it into chunks and intersperse it with graphics,” he says.

Teaching drives the use of technology at Warwick. Mr Irving’s staff will ask an academic what works for their subject and attempt to translate that online.

Diana Laurillard, professor of learning with digital technologies at University College London’s Institute of Education, says teaching online successfully requires a great deal of support from the institution that is providing the course.

Academics are not unwilling, she adds. “What academics are all about is getting the message out.”

Some techniques work better than others. Prof Sieber says some case studies are too complex to work effectively online. When more than 15 students

take part in a video conference, Iese asks them to switch their cameras off except when making a contribution because it can be confusing to have too many faces on screen.

Peer-to-peer learning, in which students help each other, can work well, particularly in Moocs when the large numbers make it hard for professors to respond to every comment or question.

Leeds University Business School does not have an online MBA but is embracing digital elements. It has given iPads to masters students to use in class for things such as online polls. Leeds aims to achieve “personalised learning pathways”, so students can choose material online that is useful to them.

Prof Laurillard adds: “It’s about making sure leaders in the education system understand what can be done here, the value and potential of it. There are so many challenges in education that technology can help with.”

Mooc tracker Keep abreast of ways to learn for free with a selection from the FT service

There are now more than 180 free online business courses listed in the FT’s Mooc Tracker — ft.com/mooc. Here is a selection from those massive open online courses.*

The Secret Power of Brands — FutureLearn.com

Developed by the UK’s University of East Anglia with help from global brand consultancy Wolff Olins, the course examines how global brands such as Google became so powerful.

Time commitment The course runs at set times of the year and lasts for six weeks, with a workload of three hours per week.

Certification Students can buy a statement of participation certificate for £34 or take an invigilated exam costing £119 in one of 4,000 test centres around the world. Those who pass gain a statement of attainment.

UX Design for Mobile Developers — Udacity.com

The course looks at how to build user-friendly apps, not how to write code. UX stands for user experience and is aimed at improving ease of use.

It was created by Udacity, the online course provider, in collaboration with Google. So far more than 57,600 students have signed up.

Time commitment Students go at their own pace, but can finish in five weeks based on six hours of work per week.

Certification There are a series of assignments, such as how to improve a registration form. However, there are no certificates or instructor feedback, so learners are basically getting access to interactive reference materials.

Scaling Up Your Venture Without Screwing Up — NovoEd.com

Developed by Stanford Graduate School of Business, the programme is running for the second time.

Time commitment It takes five weeks

and has an estimated workload of four to six hours per week.

There are assignments with set deadlines that are reviewed by peers. The final project involves forming a plan to tackle scaling challenges faced by start-ups.

Certification Subject to satisfactory performance and course completion, students will receive a statement of accomplishment.

Data Analysis: Take It to the MAX() — edX.org

Take it to the MAX() was developed by Delft University of Technology and teaches participants how to make sense of data sets using Excel spreadsheets.

Time commitment Students set their own pace, but the course can be completed in eight weeks based on four to six hours of work per week.

Certification Students can get a verified certificate for \$50 if they achieve an overall pass mark of 60 per cent.

Introduction to Public Speaking — Coursera.org

Developed by the University of Washington, this course teaches students how to improve their presentation and communication skills. Topics include making impromptu speeches and persuasive speaking techniques.

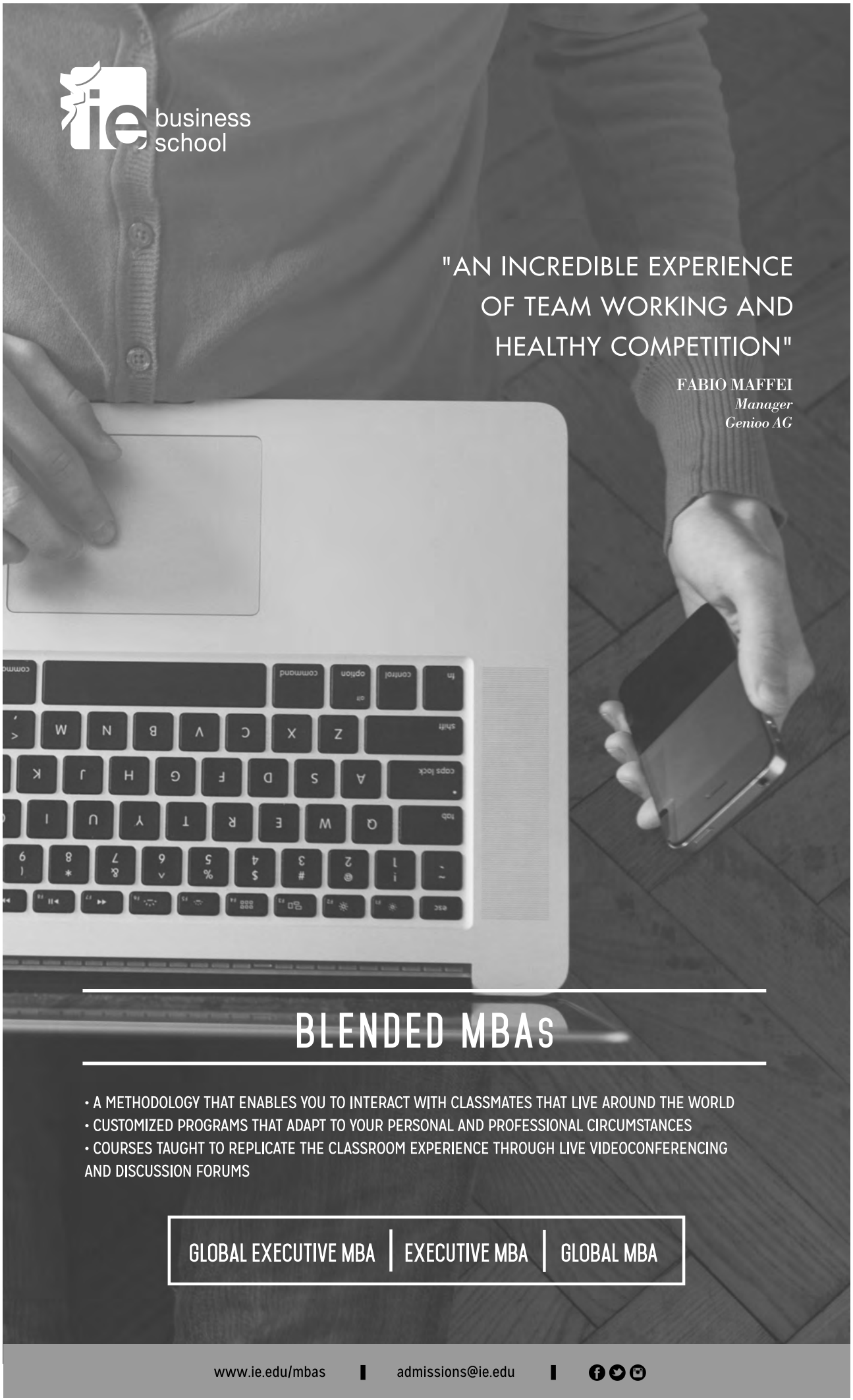
Students can upload videos — or audio files, if they are worried about anonymity — of their presentation skills for peer review.

Time commitment Ten weeks based on three to five hours per week, but students can go at their own pace.

Certification Currently, no certificate is available for the course.

**The Mooc Tracker does not list courses that demand fees, but some have pay-for assessment and certification options.*

Wai Kwen Chan






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Edtech providers move from Moocs to social networking

New entrants

An app that puts entrepreneurs in touch with mentors is among new innovations. *Jonathan Moules* examines the latest offerings

Daniela Stefovskia completed a traditional business education when she left a banking job on Wall Street to complete an MBA at the University of Pennsylvania’s Wharton School.

Then she decided to extend her business education, first with part-time courses and latterly with a purely online teaching app, called SmartUp, aimed at aspiring entrepreneurs.

Given her time again, Ms Stefovskia would avoid the business school route.

“Now that I know I want to be involved in start-ups, if you asked me if I should go to business school I would say no,” she says. “My advice would be just start something and don’t waste your time.”

Her comments are good news for Frank Meehan, co-founder and chief executive of SmartUp, which has turned business lessons into games, attracting more than 65,000 registered users since it launched last June.

As users go through the SmartUp app they are awarded points for their decision making which then puts them on to a global ranking leader board.

New content from an experienced founder or investor is pushed to the app each day.

When users reach 1,000 points, they can enter a draw with a prize of one-to-one live mentoring online with members of Founders Forum, the entrepreneurship club.

Mr Meehan, a former board member of music streaming service Spotify, sees an opportunity in postgraduate business education.

This goes beyond the platforms for massive open online courses, or Moocs, which are repackaging existing business school course material in the form of downloadable videos or Skype-like interactive lectures.

Companies such as SmartUp hope to provide an alternative to this style of teaching by providing a format more akin to social networking.

Mr Meehan explains the app focuses on the need for investors, start-ups and



Game on: Frank Meehan’s SmartUp app is aimed at entrepreneurs — Charlie Bibby

corporations to find out and showcase what people actually know.

The model of providing certificates for completing online courses, adopted by the large Mooc platforms such as Coursera and EdX, is flawed according to Mr Meehan. “That is why the big online edtech players have such huge dropout rates on their courses,” he says. Research published in 2013 suggested average completion rates on Coursera were as low as 4 per cent.

“In SmartUp, we mentor people who reach the top of the leader boards, and people are keen to connect to others on the leader boards that they see are experienced in certain topics. That is, a person with a tech background can see another with strength in marketing.”

Networking is a key part of the

[‘Start-ups] are supplementing content rather than competing with [business schools]’

business school experience that can be replicated online. Silicon Valley start-ups, such as Quora, the online question-and-answer service, have become ways for entrepreneurs to meet and learn from each other.

Karma is a smartphone app created by Israeli venture capital firm Aleph to give entrepreneurs access to other founders, allowing them to ask for help, give advice and share knowledge.

Avigail Levine, who is responsible for marketing and community relations at Aleph, says the intention with Karma was not to create a new edtech start-up or tell people to bypass MBA programmes. But she admits that it can help those seeking to learn business skills. “Part of our vision is networking to build scalable companies,” she says.

Private equity firms sense an opportunity for new entrants to take a slice of the business education market.

James Wise, a partner at London-based Balderton Capital, a venture capital fund, points to start-ups such as the Shaw Academy, based in Dublin, which claims to be the world’s largest live online educator.

“A lot of it is providing what the business schools don’t offer,” Mr Wise says. “They are supplementing content rather than competing with them.”

Ophelia Brown is general partner at LocalGlobe, a VC firm that has backed several of the UK’s most successful technology start-ups, having completed an MBA at Insead in France.

Although she sees opportunities for technology businesses to provide innovative forms of teaching online, she does not believe that they will replace campus-based study. “I went to Insead because it was an international school where people came from all over the world to study,” she says.

“Business school can be prohibitively expensive for some and it is time consuming, but I don’t think anyone can claim that technology will replace the value of attending their courses.”