

The MOOC is in session

Online instruction is helping Indians open career doors

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In 2013, Dr Balish Jindal signed up on Coursera for the first-ever MOOC (massive, open, online course) on social psychology offered by Wesleyan University. She felt an application of its principles to her practice would help her engage more effectively with her patients.

The 56-year-old Delhi resident was among 250,000 participants. Turned out her final essay, based on her outreach to girls in a neighbourhood government school, showing them how to identify and report sexual violence, was voted best of all. She was invited to Stanford University for three days to be awarded a certificate and meet the Dalai Lama, who was visiting the campus. Her stay and travel were sponsored by Stanford, where Dr Jindal not only met the monk, but also eminent academics, including author and psychologist Philip Zimbardo, who ran the famous Stanford Prison Experiment in 1971. Dr Jindal, who says the experience virtually changed her life, plans to switch careers to counselling, a decision galvanised by that first MOOC. "Though I

wanted to pursue a \$445 MOOC on business analytics by the Wharton School, her employer, Delhi startup KoverKid offered to cough up 20% of the fee.

COO Priyanka Khanna says they want to encourage continued learning.

"There are so many career specialisations for which we don't have the necessary educational infrastructure in India, and MOOCs fill the gap," she says.

Start-ups also perhaps identify with self-starters in the company who commit themselves to professional improvement. Vivek Shangari, a serial entrepreneur who's running his third enterprise Aoshacker, a coding boot camp, lacks a college education but is armed with MOOC degrees in technology and management. "For me online courses were the only option," says Shangari, who has made it mandatory for all his employees to take one online course every year. "It can be anything, a new coding language or poetry but it's a must and 5% of the appraisal is tied to the employee's performance in the online course," says Shangari.

There's also a soundproof cabin in the office where his employees can take lessons for an hour every day without work-related interruptions. Even NPTEL (National Programme on Technology Enhanced Learning), the online campus launched jointly by the IITs and IISc last year, has been trying to set itself up as an accredited route to jobs. A spokesperson said they're in talks with IT majors to ensure that students who have NPTEL certificates get short-listed by companies during recruitment and interviews (including internships at the IITs themselves). Backed by NASSCOM, NPTEL largely attracts students of engineering, often from free-floating colleges that may not offer the sort of elective pre-

Many companies that hire for technical roles, Google for example, have started listing open online courses from Coursera as recommended job qualifications



couldn't pursue my dream of studying in an American university the MOOC brought world-class lectures into my living room," she says.

As course providers like edX, Coursera and others look to offer more rigorous, certificate programmes, university-compatible credits, and specialisations tailored for industry Indians are beginning to see not just knowledge, but better career prospects in MOOCs. In Coursera's first-ever learner outcome survey in September, it emerged that 55% of the 2,054 Indian online learners polled were looking for career-building benefits, while 36% sought to further their education.

Coursera has about 1.1 million Indian registrants. "Our learners may not have the option to structure their lives around their education, but rather need the flexibility to mould their education around the constraints of their life," says Daphne Koller, Stanford professor and one of the co-founders, along with Andrew Ng, of Coursera. "New technology platforms and greater acceptance of online certificates by employers are allowing those people to transform their careers," she adds. Google, for one, has started listing courses from Coursera as recommended qualifications for a job.

And it's not just global Goliaths that see recruitment value in MOOCs. When a 35-year-old senior manager

wanted to pursue a \$445 MOOC on business analytics by the Wharton School, her employer, Delhi startup KoverKid offered to cough up 20% of the fee.

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Those in govt schools may not tote smartphones and iPads, but a few non-profits are trying to bridge the digital learning gap

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It's 7.45pm on a cold November evening in Bengaluru. Lights are on in just one room of a government school in Viveknagar, home to hundreds of disadvantaged families.

In a few minutes, the lights go out and kids walk out of a robotics lab, rather out of place in a government school battling for funds to build toilets. But this lab has changed the lives of the children. A year ago they couldn't handle calculators, today they win robotics competitions, an achievable achievement even for posh private schools.

"There's an advantage when you bring interesting things to children. They tend to work better," says P Srihar, who quit a well-paying engineering job last year to teach and mentor the children in the school. They no longer use rote to solve problems, they can use maths to calculate the distance robots need to travel, or the time taken for a command to be executed. Their latest achievement is making the two robots in the lab exchange commands using Bluetooth.

The Indian education sector is quickly adapting to technology. More than 400 educational technology firms were launched in the last decade. That said, most of these initiatives —



OPEN CLASSROOM: Hyle-In-The-Wall Education Limited takes the learning station, a computer, to the playground and encourages children to explore and learn

smart class rooms, online teaching programmes, teacher evaluation, in-school learning, sharing through tablets or laptops and personalised educational content — are thriving mainly in the private sector or the more autonomous higher education institutes like the IITs and IIMs.

As India's education system teels up the technology ladder, it will be stores like Viveknagar that will matter most. "Technological advances

ments have certainly enabled a lot of things inconceivable earlier. Today, our experience shows, learning and teaching can become more democratic, taking teachers to students, or allowing the latter to pick the former," says Varad Krishna, CEO & co-founder of Vedantu, a live online tutoring platform which uses technology to bring together teachers and students.

But he also speaks of the need for a government policy framework to be expedited to make the same available for those who cannot afford those, such as government schools.

However, in the absence of such a policy, private and non-government initiatives are trying to extend these technologies to government schools. US-based free online tutor provider, Salman Khan's eponymous academy for one, intends to tailor tutorials to the NCERT curriculum in all major Indian languages.

Scribbr's robotics lab is funded by Akshara Foundation, which has also tied up with the government to teach maths to primary schools. Bengaluru-based international school, Inventures Academy recently brought the Khan Academy module to its campus and opened it up to students of government schools in the hope that it could enable them to learn independently.

Says IIFT-B founder-director Prof S Sadaoppan: "In countries like the US, the government took the lead and put in place infrastructure key for such initiatives. There is enough scope for India to do the same, except that there may be a lack of will. A lot of projects get announced but nobody seems to see if these have been implemented."

He adds that even educational institutes in tier II and III cities and villages can benefit from this technology. Educomp, considered a pioneer in the field, has also had some progress in getting involved with government schools. But several hurdles have emerged such as poor internet penetration and low internet speeds, besides the lack of infrastructure.

If these are not fixed, the great Indian classroom divide won't just be about economics but about tech as well.

School textbooks go the iTunes way

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Education is ditching the one-size-fits-all model in favour of customisation, a fact Mark Zuckerberg underscored in his open letter to his daughter, in which he wrote: "Our generation grew up in classrooms where we all learned the same things at the same pace... You'll have technology that understands how you learn best and where you need to focus". India is all ears and has already put word to action.

While online tuition portals allow students to cherry-pick teachers at attractive rates, some portals are servicing students with individual chapters from reference books. For example Fastudent, an edutech aggregator, offers separate chapters on, say, chemical kinetics or rotational motions, for IIT-JEE exams for Rs 300. "It's like what iTunes did to the music industry. Instead of buying an entire album, just purchase a single track for 99 cents," says Geetanjali Khanna, COO, Fastudent. While private edutech companies swing into action early on, the government has come up to speed, and its Digital India programme has taken bespoke learning to the masses. In July, the department of electronics and information technology initiated eShiksha, a mobile app for android phones that provides e-textbooks for Classes 1 to 12 (in lieu of rote to students of government schools, who can download content, chapter by chapter. For now, the school syllabus of Mad-

hya Pradesh and Maharashtra state boards is available for download. The app, that will have paid content too, has over 1,000 downloads on Google Play so far. "As of now eShiksha has 91 e-books in English, Hindi and 10 vernacular languages," says Dr M Sasikumar, associate director at the Mumbai office of the Centre for Development of Advanced Computing, which has developed eShiksha.

In another corner, students interested in vocational skills can pursue them on the new NITVE, an internet TV portal that offers 50 courses in IT, banking, finance, retail and management.

In addition to personalising education, an online marketplace also allows students easy access to the latest edition of textbooks. "This is very relevant in today's times when school and college curricula undergo frequent changes. Earlier, students who studied from hard-to-find books or those borrowed from the library missed out on updated content," points out Khanna. One of the biggest publishers of textbooks in India, S Chand, will next week launch a new mobile app that will allow students to download chapter summaries. "It will be a supplementary tool to help them streamline their preparation," says Gaurav Jhunjhunwala, director, S Chand Group. The publishing house at present has a catalogue of around 200 e-books, which are sold on various e-retail sites at prices 15% to 20% less than the printed versions.



The internet puts coaching centres to the test

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In India, one out of four students takes private tuition, according to the latest NSSO data. A 2013 ASSOCHAM survey valued the Indian coaching industry at Rs 1.5 lakh crore. Clearly, if technology is transforming education, it cannot bypass the parallel education system. Geetanjali Khanna, COO of edutech aggregator Fastudent, says that chartered accountancy (CA) has seen the biggest shift from offline to online coaching. "Most aspirants now buy CA lecture sets online in the price-range of Rs 700 to Rs 3,000 per set," says Khanna, adding that numbers will only rise as students are increasingly strapped for time.

"Travel time has increased, making physical attendance at coaching centres difficult. Also, students are pursuing many co-curricular activities in addition to academics. All these factors make online tuition more appealing," says Khanna.

Aakash, a leading brand in coaching for medical and engineering entrance,

Web and mobile-based coaching apps are a boon for those who live in smaller towns and can't afford to move to big tuition hubs

recently launched Aakash Live, an online platform where students can attend the instructor-led classrooms from anywhere. The online tool offers course schedules, asynchronous discussion sessions, integrated cloud storage for content and access to class recordings.

Then there are websites that train students to crack competitive exams with tailor-made solutions. Embibe, with over four lakh enrolments since 2012, offers highly-personalised coaching for entrance exams to engineering and medical courses. Their instructors pinpoint the weak areas of each student by tracking time spent over every question in online mock tests, and then offer personalised solutions and speed tips. The website also has a 'rank predictor' tool that estimates your all-India rank based on the marks you score in individual subjects in mock tests.

Such tools are a boon in those who live in smaller towns and can't afford to move to a bigger city just for coaching. "We encourage students to stay in the comfort and convenience of their locality and pursue their professional goals through e-learning and digital education," says Aakash Chaudhry, director, Aakash Educational Services Private Limited.

So will coaching hubs like Kota eventually lose their popularity? Unlikely, say industry experts. The future market will be a blend of classroom and digital teaching. "Both classrooms and teachers will stay, but the method of instruction and learning will become more digitised," Khanna concludes.