Advancing Higher Education: Connecting Curriculum to Careers

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Foreword

A Pivotal Moment for Indian Higher Education.

The next evolution of higher education is underway. Across India, universities are connecting from 'curriculum to careers'. They are fundamentally changing how they design and deliver programmes for much larger impact to strengthen employment outcomes.

New possibilities with hybrid learning are driving this shift. As this e-book shows, higher education leaders are innovating with blended solutions to modernise curricula with career-aligned courses and keep pace with the changing skills employers need. They are bringing in 'industry as educators', by offering micro-credentials that help students build in-demand, entry-level job skills.

Recent regulatory developments, in line with the National Education Policy (NEP), have accelerated this trend. Higher education institutions can now offer 40% of credits in any category through appropriate online courses that they deem best for their student cohorts. Education leaders are integrating such cutting-edge online content into curricula, enabling their students to earn credits, even as they bridge skill gaps, impart multidisciplinary competency, and expand learning opportunities at scale. By implementing hybrid solutions, institutions are uniquely positioned to provide students with both the foundational knowledge and job skills that make them employable as soon as they graduate.

This e-book offers insights into the approaches and interventions leaders are adopting, to connect learning to career outcomes. I hope it will inspire new conversations on where Indian higher education can go next, to carve out pathways between education and employability that equip Indian students with skills for a digital world.

Raghav Gupta

Managing Director - India and
Asia Pacific, Coursera

Introduction

'Hybrid' is one word that dominates the conversation whenever programme design and delivery are discussed in academic circles. Tech was always the elephant in the room, especially when it came to content design and delivery. But Covid changed it all and changed it for better. Institutional resistance to tech adoption was swept aside by the tsunami of Covid, and every university, every teacher, and every learner became tech enabled. Some did by choice, some were forced into it, but everybody adapted, and even when we are back to normal, the new normal is here to stay.

IDA, as a premier association operating across all three core stakeholders: the academia, the ed-tech business and the policy apparatus, has been tracking this change as it happens. We are now presenting the first book in our series on "Tech & Education" focusing on what technology has contributed to the creation of content in the curriculum space. The e-book is an outcome of in-depth conversation we had with many education leaders to understand what clicks when it comes to using tech inside the curriculum, both to complement and supplement the value of the education that the student seeks. The prime conclusion academics tell is "Tech is here to stay"; the question is "Have you adapted it to your needs?"

We hope the booklet will provoke you, nudge you and help you decide better and sooner.

We look forward to engaging with you in a deeper conversation.

Aditya Gupta

CEO, India Didactics Association

Aligning Higher Education to Future Skill Needs

Today's skills landscape looks very different from **20 years ago**, when roles like data scientists and mobile app developers did not exist. Essential skills have changed. As Dr. R S Bawa, Pro-Chancellor, Chandigarh University puts it, "What Excel was to my generation, Python is to the current one".

Technology is altering the skills for jobs across industries at an accelerated pace. The challenge on campuses is to identify these emerging skills and integrate them into existing curricula. Higher education is adapting by bridging curricula gaps through hybrid learning. Leaders are simultaneously strengthening digital infrastructure for the shift ahead.

How Fast are Skills and Jobs Changing?

When Coursera analysed the fastest-growing **Job Skills of 2023**, it found the top ten digital skills varied significantly from the previous year — only two technical skills data visualization and user experience carried on from the previous year in addition to ever-green skills like change management and communication. This reiterates the need for constant re-learning.

The OECD estimates over 1 billion jobs — almost one-third of all jobs worldwide — will be radically transformed by technology in this decade.
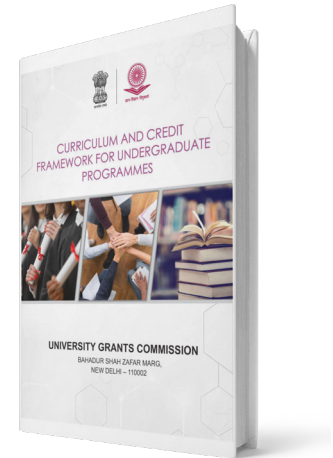
Dr. Aman Mittal, Vice President, Lovely Professional University (LPU), explains, "From the day we began, we were very clear that as a technical university, we wanted to have a very strong technology backbone. We have our own data centres and have invested in 50 kilometres of optical fibre. We were pioneers in integrating online learning, bringing digital content into our curriculum. I strongly feel that digital is the way forward and if you don't adapt, your existence would be in question, forget about expansion".

Hybrids Gets a Policy Push:

Gross Enrolment Ratio (GER) is an overarching concern for the nation. While fully online programmes would move the needle forward massively, most VC's we spoke to believe that the new University Grants Commission (UGC) framework for undergraduate education, which permits universities to incorporate platform agnostic content for up to 40% of their curriculum from online sources, is definitely more than a step forward in the right direction.

Early Versus Late Adopters:

The dynamically changing business landscape and digital-first approach to the market has fundamentally altered the way universities look at digitisation.

"If you don't go digital, your existence itself would be in question, forget about expansion".

Dr. Aman Mittal
Vice President, LPU

For Mr. G.V. Selvam, Vice President, VIT, Vellore, a strong advocate of face-to-face learning, Covid fundamentally changed his, as well as VIT's perception. "We can feel the current reach and impact of the same", he adds. A late convert to the hybrid wagon, Mr. Selvam is evaluating hybrid model carefully but agrees it is the only way for the majority of 40,000+ colleges in the country to access state-of-the-art content — both knowledge and skills.

Looking through a different lens, Dr. Chadaram Sivaji of Saveetha University bats convincingly for digital content and the "level of access" it opens up. Online platforms facilitate "learning anytime, anywhere", a crucial advantage for students from rural and semi-urban areas, according to him.

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Dr. Chadaram Sivaji
Vice Chancellor, Saveetha Institute of Medical And Technical Sciences

Employability is the Outcome, Industry is the Way

Improving student employability, ensuring placements, and enabling entrepreneurship were top priorities for every education leader we spoke to.

The patterns of engagement with the industry vary. Institutions like Chandigarh University and Integral University began by inviting industry partners like IBM, Microsoft, and Adobe to offer co-branding degree programmes. SR University and Sanskriti University are bringing in industry as a part of their board of studies. Other universities are welcoming industry leaders as Professors of Practice.

Most leaders interviewed acknowledge the growing importance of industry alignment with the universities. Irrespective of the format, many of them agreed that getting digital content, especially certifications like industry micro-credentials, are a definitive value add.

"The recent UGC guidelines that permit up to 40% of the curriculum to be sourced online is fundamentally revolutionary and very much needed".

Prof. Dr. R.S. Bawa
Pro Chancellor,
Chandigarh university

From 'Industry as a Partner' to 'Industry as an Educator':

"I believe very strongly that curriculum needs to change constantly, and no institution will ever be able to provide all the content, which may be required by students", asserts Dr. Bawa, an early adopter of Coursera.

Prof. Dr. Raghuvir Singh, Vice Chancellor, Teerthanker Mahaveer University notes, "I think this is a strength, which we can give to students, an added advantage in terms of add-on certifications or courses, which will make them more competent in that subject and also enable them to get better placements".

Small is Big: Why Industry Micro-Credentials Matter

There's a clear consensus that the industry will play a role as an educator going forward. By offering industry micro-credentials that demonstrate job skills, higher education institutions are sharpening their focus on employment outcomes. A recent survey by Coursera finds micro-credentials provide a valuable link between students and employers.

[Advancing Higher Education with Industry Micro-Credentials Report](#) shows **96% of students in India** — higher than the global average — agreed that an industry micro-credential would help them stand out to employers and secure a job. Indian employers equally value micro-credentials: 85% of hiring decision makers said they would be more likely to hire a candidate with both a degree and an industry micro-credential, and 92% felt it strengthened a candidate's job application.

Anagha Bhardwaj

A final year CSE student at Graphic Era University, Dehradun, Anagha became Axis Bank's first hire from her college. She benefited from her BTech CS with a 'Data Science with Python' microcredential from IBM — a skill combination that got her noticed.

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Career Academy: Preparing Students to Build In-Demand Job Skills

The popularity of industry micro-credentials continues to soar in India. Colleges are going a step further to strengthen their employability strategy with initiatives like Coursera's **Career Academy**. which is a versatile platform and a turnkey solution for the institution. It enables the institution to provide content for its students both as credit and non-credit offerings.

This training academy is enabling students to explore different career options, understand the skill requirements of a particular job and earn an entry-level Professional Certificate from the world's leading companies — all in one place. Students can enrol in Guided Projects to build hands-on learning or choose from an extensive catalogue of industry micro-credentials for entry-level digital roles, to demonstrate their job readiness to employers.

Digital Content - Enabler or Driver

- Knowledge versus skills
- Full degrees or smaller, impactful credentials
- Stackable certificates and modularisation of education
- In-house competency building or seeking out the best from anywhere

These discussion points were top of mind for academics, even as everyone agreed on the growing need for on-demand digital content. As Prof. GRC Reddy, Vice Chancellor, SR University, observed, "I am not preparing a person to be a meagre technician. That is not really engineering. I am preparing them for higher order thinking skills and the competency to understand and define problems, not just the skills or techniques to solve them". Dr. Reddy summed up the value of newer credentials by saying, "In the short term, of course, students are to be employed. And if a specific industry-led micro-credential helps him or her achieve that, I am all for it".

Looking at the bigger picture, Dr. Syed of Integral University adds, "As an educational institution in a developing country, we need to produce employable graduates. Educational institutions cannot dictate what the industry should demand. In any business, the customer decides what is good, not the supplier. In higher education, if the industry is changing its demands very quickly, it's all the better for institutions, as it forces you to adapt faster. You become very agile, and you get ahead of the competition".

"If the industry is changing its demands very quickly, it's all the better for institutions, as it forces you to adapt faster".

Dr. Syed Nadeem Akhtar
Pro Chancellor, Integral University

Strengthen Academic Excellence:

Institutions are thinking critically about how to elevate the quality of education and make learning relevant to today's jobs. Dr. Raghuvir Singh explains what's guiding this process, "Take any certification... Why should I do a certification? How does it fit into my existing knowledge and skills? How can I use it to make my career? These are relevant and important questions that every student must ask before doing any course and every institution must be able to answer".

"Any content that improves an existing core, amplifies existing knowledge, and makes the candidate a more attractive hire, is welcome", adds Dr. Singh.

Diversity and Depth are Digital's Calling Card:

Access to a wide catalogue of high-quality content, flexibility, and on-demand learning make a compelling case for online platforms, according to Dr. Sivaji. He says, "A good teacher can only teach the subject in which he/she has built expertise, but with a digital repository, he/she could bring in the best from anywhere in the world".

Online platforms tremendously expand students' choices in terms of transdisciplinary and multi-disciplinary courses. Building such skills prepare students to move ahead in multiple career paths.

"Any content that improves an existing core, amplifies existing knowledge and makes the candidate a more attractive hire, is welcome".

Prof. Dr. Raghuvir Singh
Vice Chancellor, Teerthanker Mahaveer University

Raghav Gupta, Managing Director, Coursera, India & Asia Pacific sees this as a pivotal moment. "Institutions are using Coursera for Campus for hybrid solutions to upgrade curricula with career-aligned courses, create skills-based programmes, and link learning to career outcomes", he says.

Three Trends are Driving this Shift:

#1: The Rise of Industry Micro-Credentials

As Raghav points out, "At the current pace of change, it is no longer possible for universities to create industry-aligned curricula in-house, with their own resources or faculty". Leaders in academia are bringing in global employers as educators to solve this problem. Adoption of entry-level industry micro-credentials on Coursera for Campus has risen sharply in the past year. These certificates from leaders like Google, IBM, Meta, and Salesforce have been created to fill real-world skill gaps. Universities are offering them to equip students with specific skills for in-demand entry-level digital jobs, such as a Data Analyst and Digital Marketer.

#2: New Possibilities for Hybrid Learning

Institutions can now offer 40% of credits in any category through online courses, with the full autonomy to select. They are using this opportunity to curate industry-focused learning and close curricula gaps by integrating Coursera for Campus content for credit.

#3: Online Content: A Resource for Teaching and Learning

"Much like the textbook transformed classroom learning, the leap with digital learning during the pandemic has been a defining shift for how online content can be leveraged as a resource", says Raghav. Universities are weaving in courses, lectures, and labs from multiple offerings like Coursera for Campus, in faculty-led classes or to explore flipped classrooms and enhance learning experiences. Learning has always been blended but the medium has changed — today's reference book might well be an online module on various digital platforms.

Integrating Online Content to Offer World-Class Courses

As the possibilities for hybrid learning become more nuanced, academic leaders are interpreting the opportunity in different ways. Dr. Bawa of Chandigarh University notes, "The basic responsibility of the university is to design its own content and curriculum and deliver it. The role of online learning platforms like Coursera becomes important wherever we find there's a gap in delivery — we use their platforms and courses to fill those gaps". Others see this as a way to level the playing field, overcoming location barriers, resource limitations, and faculty constraints. Ultimately, adoption would be institution and "need" specific.

Blended for Credit or Standalone for Credit:

Institutions are taking different approaches to integrate online content that counts as credit. With 'blended for credit learning', universities are supplementing faculty-led classes with courses, lectures, and labs online, which serve to keep their content up-to-date and optimise faculty time. While teaching an Electronic Systems Design class, a teacher might add on the 'Introduction to Electronics Course' from Georgia Tech, just like they would prescribe a required reading list. Or, they might flip the classroom, where students do a module online and class time is reserved for active learning and discussion to encourage problem solving and critical thinking.

Through 'standalone for credit learning', colleges offer a full credit stand-alone online course or specialisation, which could be for an emerging technology or multidisciplinary skills in addition to the core subjects taught by in-house faculty. Introducing these courses doesn't require additional investment or a minimum number of students interested in that area.

Vice Chancellors differ in their choice of application. Some like Dr. Bawa say the final course responsibility must remain within the institutional walls, and content gaps are best sourced from online platforms. But geography and student diversity also matter. As Dr. Raghuvir Singh explains, "One needs to appreciate the limitations within which an institution and its students operate. Children from rural areas have issues in terms of their capabilities, language skills, digital awareness and access. So, if a micro-credential is available and is useful in enabling placements, a student might want to pick it up and the institution might incorporate the same as a credit course".

"In the short term, of course, students are to be employed. And if a specific industry-led micro-credential helps him or her achieve that, I am all for it".

Prof. Dr. G R C Reddy
Vice Chancellor, SR University

Challenges and Opportunities

Hybrid learning is here to stay but the pace, depth, and diversity would vary across the institutional DNA. "Some would adapt faster, some slower, but adapt we all would", concludes Dr. Bawa. But there are five challenges that most academics identify.

Mindset Matters:

"There is a mindset issue. If we talk about the older faculty, you will find a certain resistance to change. But the larger issue is that education has fundamentally changed in the last few years. Work from home, hybrid work, work-life balance, skill-based work — a whole bucket of issues have come up that seek answers", says Dr. Aman Mittal of LPU. A view reiterated by Dr. Sachin Gupta, Chancellor, Sanskriti University when he highlights the need for acceptance by students and faculty about the efficacy of an online programme. He explains, "The value of an online course has still not been understood. One can learn effectively, in fact, much better than offline, since one can pace the learning process. However, this idea has to sink in".

"One can learn effectively online, in fact, much better than offline, since one can pace the learning process.However this idea has to sink in".

Dr. Sachin Gupta
Chancellor, Sanskriti University

New Economy; Diverse Possibilities:

Mr. Selvam of VIT takes a slightly philosophical approach. According to him, we need to fundamentally rethink what constitutes education for tomorrow's generation. "What education might lead to sustainable employment, especially for the teeming millions from rural India?" is the prime question for him.

As ChatGPT dominates the conversation, Dr. Singh notes, "the challenge is to reimagine educational offerings". And that, according to him, would emerge only if we consult the students. "If you look at the entire process in the last two years and what is shaping up, the student is at the core, not the faculty. Nobody has, in fact, heard their views in this period of time". This ends up posing one of the biggest challenges. To listen to the student and faculty together, on their demands and aspirations, to provide a curriculum that is responsive to all needs. According to Dr. Arora, "Hybrid probably is the best way to deliver this personalised and customised education".

Into the Future: How Generative AI will Transform Learning

There's caution about the risks and excitement about the possibilities, as ChatGPT continues to polarise educators. Yet leaders agree generative AI is going to have a profound impact on education and jobs. Raghav looks ahead at how it could potentially transform the learning experience, "Students have gone from "passively" watching a video online, to the "active", learning of today with collaborative projects, virtual discussion forums, and peer feedback".

The Type of Student Matters:

Students with diverse expectations will influence the adoption of digital content. Prof. Syed critically describes three types of students:

i. Students who are not particular about the programme they pursue but mainly seek the assurance of a placement, might be easy adopters but are also quite fickle.

ii. Students who broadly understand the domain and appreciate content that suits their needs, would benefit from certifications offered by the industry.

iii. Students who decide very early on what direction they need to specialise in, would benefit the most from specially curated courses / content because they have earmarked a sector like fintech or consulting very early.

A New Market Exists, Though Nascent:

Forward-looking institutions are also scanning the horizon for new growth opportunities. The recent launch of ISB online has enthused institutions.

Dr. Arora defines the opportunity, "There is a new class of lifelong learners — people who have graduated and probably completed their first degree, maybe 10 years before, they've never gone into college after that. And these are people who don't want to take a long break but want to get the best. Price is no concern. Verifiable learning is at the core of their expectations".

"Verifiable learning is important for the new class of lifelong learners".

Prof. Dr. Manoj Arora
Vice Chancellor,
SRM University, AP

Ecosystem is the Key:

For adoption to succeed and flourish, the entire ecosystem must work in tandem. At the apex the policy regime must be more adaptive to disrupting technologies. Institutional culture must be conducive to adoption.

In Dr. Syed's words, "The ecosystem in the institution has a huge role to play in promoting new ways of learning. The faculty in the institutions have a lot of flexibility and say in the way online learning is perceived in that institution, whether they promote it or not, whether they encourage it or not".

Content providers must be proactive and cost effective. As Mr. Selvam of VIT says, "We are still a developing country, and most colleges have substantial fee regulation. So cost is a factor". Above all, student mindset is at the core.

Connecting the dots and integrating hybrid learning in the learning ecosystem will increase acceptance. The fundamental thought in the minds of the student remains: "Once I complete an online course and submit the grades, how will the institution accept it and absorb it into the transcripts? How smooth will the process be? Depending on how easy it is to transfer the credits that I get from the cloud, into my institution, and how well the teachers accept those credits and the learnings, I will decide whether I'm going to take another course or not", according to Dr. Syed of Integral University.

"We are still a developing country, and most colleges have substantial fee regulation. So cost is a factor".

Mr. G V Selvam
Vice President, VIT, Chennai

The Way Forward

Tectonic shifts are underway in the economy and society, both globally and locally. Issues related to sustainability, circular economy, and glocal economy are coming to the fore. Education needs to not only respond to these shifts, but also advance thinking in these directions. In this fast-changing era, no institution on its own, can individually address the myriad challenges. A collaborative approach between industry, academia, and online platforms would be the order of the day. Institutions must move beyond their comfort zones and harness new technologies, mediums, and even structural forms.

In Dr. Arora's words, "They learn to unlearn, to relearn, and effect new learnings. And, only institutions that are confident of their knowledge contributions, will be able to seek, source, and deliver the best from anywhere, enabling their students to excel and grow".

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We are thankful to all the esteemed leaders who contributed to the content of this E-Book

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About Coursera

Coursera is a global platform for online learning and career development that offers anyone, anywhere, access to online courses and degrees from leading universities and companies.

113 million learners and more than 7,000 campuses, businesses, and governments have come to Coursera to access world-class learning—anytime, anywhere.

To learn more about how your institution can integrate and adopt hybrid solutions and prepare students for in-demand jobs, visit **Coursera for Campus**

About India Didactics Association

India Didactics Association (IDA) is a not-for-profit membership association engaged in improving learning and teaching. The association is a conglomerate of all stakeholders of the education & skills industry in the country.

With a network of 88,000+ educators, education institutes and industry partners, IDA is the largest National Association, unifying the entire education & skills sector.

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