

V Ramgopal Rao

The recent *Open Doors Report 2024* revealed a telling trend: India has become the largest source of international students in the U.S.; with a record-breaking 3,31,602 students enrolled in 2023-24. Indian students pursuing higher education abroad are making substantial financial contributions to international economies. In 2022, their direct spending – encompassing tuition fees, housing, and living expenses – was estimated at approximately \$47 billion. This figure is projected to escalate to as much as \$70 billion by 2025.

While this reflects the ambition and global outlook of India's youth, it raises an important question: Why are so many of India's brightest minds compelled to seek education abroad? India aspires to emerge as a global leader in education and innovation. Yet, the student exodus underscores significant challenges in our higher education ecosystem. The answer lies in transforming India into a global study destination; not just for our own students but also for international learners. This transformation, however, requires a cohesive, multi-pronged strategy addressing education quality, financial sustainability, institutional autonomy, and capacity building.

Diversified financial model

The core challenge lies in India's disproportionate reliance on tuition fees in privately funded institutions and government grants in public-funded

ones as the primary sources of revenue. In globally renowned universities, tuition fees contribute only 15-20% of the total revenue. In a stark contrast, Indian institutions often rely on tuition for over 80% of

their funding. Similarly, government-funded institutions draw nearly 90% of their revenue from public funds. Both models are unsustainable and lack the scalability required to meet the growing de-

mands of the education sector.

Ideally, tuition fees should contribute only 30-40% of total revenues. A sliding fee structure, coupled with merit-based scholarships funded by en-

dowments, can help ensure access to quality education without compromising affordability. Endowments, a mainstay of global universities, should form 30-35% of the revenue base. Encouraging philanthropy from alumni and corporate donors, supported by favourable tax policies and streamlined regulations, is essential to building these endowments.

Additionally, research overheads can contribute 20-25% of revenues through industry-academia collaborations and global research grants. By prioritising applied research that addresses real-world challenges, institutions can generate funding while making meaningful contributions to society. The remaining 10-15% of revenues can come from alternative sources such as executive education programmes, intellectual property commercialisation, and investments in start-ups.

This balanced approach reduces the financial burden on students while ensuring that institutions have the resources to invest in research, innovation, and global competitiveness.

tion is central to this effort. Private institutions, supported by Public-Private Partnerships (PPPs) and Corporate Social Responsibility (CSR) initiatives, must play a greater role.

India needs to establish new world-class universities while upgrading existing ones with state-of-the-art infrastructure. A vibrant research and innovation ecosystem must be built by fostering industry-academia partnerships, increasing R and D funding, and creating mechanisms for monetising intellectual property. Flexible, interdisciplinary academic programmes aligned with global standards can further enhance the appeal of Indian institutions.

To improve the diversity and quality of education, Indian universities should actively recruit international faculty and forge global academic collaborations. Such measures would not only raise the global profile of Indian institutions but also expose students to a truly international learning environment.

Autonomy and accountability

An enabling policy environment is essential to drive these reforms. Institutional autonomy, as emphasised by the National Education Policy (NEP) 2020, is a cornerstone of this transformation. Universities need the freedom to innovate in curriculum design, resource allocation, and partnerships

with global institutions. Autonomy empowers institutions to respond dynamically to changing global and domestic needs, aligning strategies with global benchmarks.

Government policies must also encourage the creation and growth of endowments. Substantial tax benefits and flexibility in fund management can incentivise philanthropy. However, with autonomy must come accountability. Independent audits and professional fund management practices should be mandated to build stakeholder trust and ensure transparency.

Globally, universities are moving toward zero-tuition models sustained by endowments and research revenues. India, too, must aim for a future where quality education is universally accessible, rather than an aspirational privilege.

With these measures, India can reverse the brain drain and position itself as a global hub for education. The goal is not merely to retain Indian students but to attract learners from around the world. The time to act is now. By taking bold, transformative steps today, we can ensure that India's brightest minds not only stay but thrive, and that global talent aspires to call India their alma mater.

Views expressed are personal.

The writer is Vice Chancellor, BITS Pilani Group of Institutions, and former Director, IIT Delhi.

Stay positive

Uncertain about your career options? Low on self-confidence? This column may help



OFF THE EDGE
Nandini Raman

I have graduated in Naval Architecture and Ocean Engineering. What are the career opportunities? Should I take the GATE? Sailesh

Dear Sailesh,

There are some good opportunities across core industries in shipbuilding and repair, offshore engineering, marine hydrodynamics, marine structures, and ocean engineering. You can explore maritime consultancy, academia, research and development, and government agencies like the Indian Navy, Coast Guard, or port authorities. A good GATE score can boost your career prospects and open doors to M.Tech. programmes and PSU jobs in shipping, defence, and oil and gas sectors. Consider gaining practical experience and develop your technical skills through internships and industry projects. Build relationships with industry professionals to learn about the latest trends and job opportunities.

I am in Class 12 (Science). My Physics is weak but I took Science because my parents insisted. I am a History enthusiast and wish to be an archaeologist but I am uncertain about job opportunities. I am preparing for the engineering entrance exams but am not sure I will be a good engineer even if I clear the exams. I also want to prepare for the UPSC. I feel stuck and confused. Aachal

Dear Aachal,

Is it possible to talk to your parents and share your disinterest in Physics and

Engineering? Could a teacher at school or a relative or family friend mediate this difficult conversation? It is important that they understand this now and not force you into a stream that you dislike. If this doesn't work, ask to meet a therapist or career counsellor as soon as possible. Your passion for history is a great foundation for a career in Archaeology. A B.A. in History or a related field can lead to careers in museums, heritage organisations, or research institutions. Interdisciplinary fields like Archaeological Science (a combination of Archaeology and sciences such as Chemistry, Physics, and Geology) or Heritage Conservation (preserving and restoring historical sites and artefacts) are also interesting. These will also help you with the UPSC or State PSC exams. Other job opportunities exist across academia, teaching, research, journalism, content writing and so on. Have a productive conversation with your parents as that will help alleviate your stress. Stay positive and make time for hobbies, exercise, and relaxation.

I am in Class 12 and overwhelmed by the vast number of options available. I am interested in filmmaking, especially cinematography, but my parents want me to do a "useful" degree. But I don't want to study something I am not passionate about. I like science, films and reading. Anbuselvan

Dear Anbuselvan,

It is important to balance your passions with practical considerations. Explore

film-related courses and research film schools in India and abroad, their courses and specialisations various aspects of filmmaking. Media and Mass Communication courses provide a broader understanding of the industry. A degree in Fine Arts also can enhance your creative skills. Consult a career counsellor to assess your strengths, weaknesses, and core interests. Talk to filmmakers and get first-hand advice and guidance.

What course do your parents think will be "useful"? Talk to them about your interests and shortlist an academic path to get there. Could a "useful degree" in Sound Engineering, Electronics or Computer Science Engineering be good enough? This will be very useful in the technical aspects of filmmaking, visual effects, and sound design. Will this interest you? Do you have a portfolio to showcase your passion? Have you worked on short films, photography, or other creative projects? If not, then maybe consider a "useful" degree for the immediate future and pursue your passion later.

My son took a gap year in 2019-20 after completing his Class 12 (CBSE; Science with Computer Science). In 2020, he joined a college in Ireland to pursue B.E. (Mechanical). He couldn't complete three modules in his second year. After this he dropped out and returned to India. Are there any short-term job-oriented courses he can do? Senthil

Dear Senthil,

Have your son meet a career counsellor to understand what would he like to pursue both academically and professionally. What are his interests? Do they align with his passions and also develop skills that the current job market demands? The course he signs up for now should help him achieve his long-term career aspirations.

If he's looking for a technical job-oriented course, he can choose a short-term one in CAD, CAM, CAE to get an edge in the manufacturing industry or PLC, SCADA, or robotics for jobs in automation and manufacturing or courses in solar, wind, or hydro energy that will align with the growing green energy sector or Heating, Ventilation, and Air Conditioning programme. Specialised courses in automotive design, engine technology, or electric vehicles may be beneficial for opportunities in the automobile industry and certification courses in ISO standards and quality management systems.

If he prefers non-technical ones, he can consider Project Management, Digital Marketing, Business Analytics or Software Development (coding and programming languages such as Python or Java open up opportunities in software development). Internships or projects will help him gain practical experience and build a strong professional network to find a suitable job.

Disclaimer: This column is merely a guiding voice and provides advice and suggestions on education and careers.

The writer is a practising counsellor and a trainer. Send your questions to eduplus.thehindu@gmail.com with the subject line Off the Edge

Archana Subramanian
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What are the challenges that educational institutes face with the rise of Artificial Intelligence (AI)? What is the role of educators in this world of rapidly changing technology? A 500 Global LinkedIn Influencer, Santiago Iñiguez de Onzoño, the President of IE University, Spain, talks about the various aspects of education in the age of AI.

How does an institution evolve its curriculum to keep pace with the rapidly changing landscape of technology and AI?

Organisations, both in business as well as in education, tend to be quite conservative and reluctant to change. That said, universities must be flexible as they are regarded as the cradle of innovation and knowledge. They can keep traditions but must also introduce governance systems and decision-making processes that favour innovation and change. There has been criticism of universities being ivory towers because, sometimes, the research systems and the way faculty are recognised, incentivised and paid favours the academia. So, we have to introduce several changes in the governance to align with the incentives of faculty and make them closely connected with their respective professions.

What are the critical skills that students must acquire to succeed in this AI-driven world?

We should foster our reading and writing skills in the age of AI or we will lose an important part of our cognitive skills. But, if we think about generic skills, I would say critical thinking is particularly important to foster innovation. Exposing students to different forms of assessment, not just the typical essays or multiple choice exams, but oral



A friend, not a foe
A freewheeling conversation with Santiago Iñiguez, president, IE University, Spain, on education in the age of AI

assessments where they can improvise, showcase creativity, think outside-the-box or even without one... While AI is going to offer many improvements, we also need to enhance and foster traditional skills that make individuals stand out as human beings.

When it comes to AI, how can an institute balance theoretical knowledge and hands-on practical experience?

The mission of universities is not just to train students to join a particular job, but to train them into committed global citizens. Students should also be taught civic virtues, making them more sociable, interactive, understanding of fellow human beings by learning from different cultures and even learning new languages. There are some things that universities provide that you cannot learn in the workplace. Having said this, we also need to bring research and teaching at universities closer to reality.

At IE, for example, technology is part of our learning process. We believe it is a friend, not a foe, and train our students to face and navigate this new world. We are the first partner of OpenAI in Europe. We are now distributing the licenses of



ChatGPT to our faculty and will do that for our students very soon. We are also developing AI tutors to help our students in an empathetic way.

How important is interdisciplinary education? Why is collaboration across different fields necessary?

I think it is essential. Innovation, in most cases, lies at the boundaries of disciplines. I always use an analogy to illustrate why this generalistic approach to education produces more entrepreneurial spirit. Look at two different systems. The one prevalent in Europe is discipline-oriented, created mostly in the 19th century. Basically, the idea is that professionals and students begin to specialise from year one. So for instance, they become mining engineers from the first year of their studies and they go deeper. The system in the U.S. is

different. Most students start with Liberal Arts course or a programme focused on the Humanities. This fosters a generalistic approach. Then, the second phase is of specialisation. Which of the two systems fosters more entrepreneurs? The answer is the one that combines a generalistic approach along with a specialisation afterwards.

What is the role of higher education in shaping the future of AI?

I believe that education is the major engine to transform societies. As an institution, we want to foster education across all geographies and bring participants who are talented from different cultures and produce entrepreneurs, global citizens and competent professionals committed to changing the world for the better. Universities should become universally strengthening.

We are strengthening our scholarship programmes to bring talent from many different quarters. Our role as universities is, on the one hand, preparing those global citizens who transform the world for the better. Second is producing knowledge and research that helps the different professionals in their respective fields and industries.

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