India’s Realignment of Higher Education

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Higher education in India has been stifled by overregulation. The opening of private universities has been severely restricted, and all but a few exempt institutions have had to comply with rigid curricular and organizational dictates. The system has been characterized by rote learning, high-stakes examination, premature specialization, and limited flexibility. In the most sweeping transformation to the system in the nation’s modern history, India’s new National Education Policy 2020 (NEP 2020) seeks to change all that. With half of the world’s university-age population residing in India, bursting with aspiration but frustrated by limited access to quality institutions, new universities are emerging. One is Sai University, the first in the nation to integrate heretofore siloed programs in arts and sciences, technology, and law into an integrated ecosystem at the undergraduate level.

A wave of reform has swept over higher education in India, bringing hope to a stifling system. After seventy-five years as an independent, democratic nation, Indian higher education is finally breaking free of the mental shackles of colonial rule and the regulatory juggernaut that replaced it. In 2020, a new National Education Policy (NEP 2020) was introduced, the first new policy since the National Policy on Education in 1986, and the first ever whose recommendations are transformational rather than incremental. The NEP 2020 calls for dramatic expansion of the education sector to serve India’s vast youth population. It also calls for deregulation, liberal education, and more autonomy and flexibility for institutions and faculty.

The NEP 2020 is scathing in its critique of a system that issues “heavy-handed” requirements “with too little effect,” that for too long has compelled all but a few exempt institutions to march in lockstep to a mindless, bureaucratic drum: “The mechanistic and disempowering nature of the regulatory system has been rife with very basic problems, such as heavy concentrations of power within a few bodies, conflicts of interest among these bodies, and a resulting lack of accountability.” The policy calls for “a complete overhaul” of the regulatory system “in order to re-energize the higher-education sector and enable it to thrive.” While these new proposals are not novel ideas in education, they are radical for the current system in India. Proposals include moving away from curricula stuffed with information to be mastered, to move “towards less content” and increased “learning
about how to think critically and solve problems, how to be creative and multi-disciplinary, and how to innovate, adapt, and absorb new material in novel and changing fields.” As stated in the NEP2020, students must “not only learn, but more importantly learn how to learn. . . . Pedagogy must evolve to make education more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centered, discussion-based, flexible, and, of course, enjoyable.”

Calling for “no hard separations between arts and sciences” is a sea change in a system that elevated science and engineering for sixty years while diminishing the arts, humanities, and social sciences.

The most dramatic recommendation in the original draft of the policy was to disband the all-powerful University Grants Commission (UGC) as a regulatory body. Two years later, however, the implementation of the policy was handed to the UGC, the very regulatory agency it sought to disband. Those of us who were cheering the revolution began to think it was too good to be true. Can a system that employs thousands of inspectors to scrutinize every decision made at thousands of institutions transform itself into one that encourages the opposite: institutional autonomy, flexibility, and innovation? For a while, it seemed as if regulators might replace the old regulatory maze with a new one. Educators and institutions, who for decades had regarded the existing regulatory regime as a moral imperative, found its repudiation disconcerting and urged regulators to tell them exactly how to implement the new system. After years of being told precisely what, when, and how to teach and assess, newfound freedom was unnerving. The system had conditioned many to believe that one could not attempt anything without prior approval from the nation’s capital, even if it didn’t violate any rule.

Fortunately, as of this writing, the UGC appears to be moving to preserve the spirit of the policy’s loftiest principles. A steady stream of documents emanating from the government, and regular meetings with vice chancellors for their feedback, seem to be upholding the promise of permitting institutions to devise their own education models within a new, broad set of parameters, such as total number of course credits. The UGC is also actively recommending principles and practices associated with a liberal education, when just recently many of them would have raised eyebrows. These atypical practices include majors that cross traditional boundaries between subject clusters; ease of switching fields of study; and continuous and multidimensional forms of assessment that are given less weight than the previously all-important end-of-semester examinations. They even encourage institutions to “creditize” activities that the faculty might consider worthy of recognition, but that were previously considered extracurricular. Even modest steps toward some of these reforms would have dramatic impact on the number of students who have been underserved by the system. It is in this crack in the system that some of us entered, to empower students and faculty to achieve their fullest potential.
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As the name suggests, the University Grants Commission is a government agency originally set up to award grants that create or upgrade universities. It was formed in 1945 to manage India’s three central universities and establish standards for applying for the commission’s grants. But its regulatory reach expanded in accordance with the UGC Act of 1956, when it was made the omnibus regulator for higher education, even for institutions not seeking grants. Over the subsequent decades, the UGC (and other regulatory agencies for certain professional degrees) has maintained such a stranglehold on higher education that educators hesitate to implement new ideas until edicts are issued from its headquarters in New Delhi. Emerging fields and new courses have tended to be adopted only after becoming mainstream in the West. And even though India transformed its economy from a financial basket case thirty years ago to the fifth largest in the world by GDP, higher education has remained static. Except for a small number of elite and super-selective institutions with a modicum of autonomy, the regulatory system has failed to do justice to the talent, cultural history, and burgeoning global aspiration of this vast country. Quality drops rapidly beyond these few institutions, and students not able to secure admission to one of them are left with few good options. Students who don’t make the cut, or who seek fields not yet available in India, flee to Western countries if they can afford it – or languish.

The accumulated regulations have become so inhibiting that authorities seem to recognize how excellence requires being exempt from their own regulations. The Indian Institutes of Technology (IITs) were set up by the government as autonomous institutions and have thrived, while few nonexempt technical colleges with storied histories have achieved the same independent stature. More recently, the government granted exemptions by conferring a special status of Institution of Eminence (IoE) to institutions with demonstrated excellence. The granting of IoE status to a university planned by one of India’s largest business conglomerates, even before they had a single student, professor, or course (that is to say, before they had any evidence of excellence, let alone eminence) amplified cynicism about this scheme. While institutions that enjoy such political privilege perform an important service by offering quality education and conducting research, institutions without such financial and political clout have been restrained by the mind-numbing web of requirements. There are few, if any, examples of institutions that were guided by the regulators to levels of eminence. Some regulation is necessary, but the balance between policing and facilitation has been historically skewed in the direction of the former. The NEP2020 promises to shift this balance.

Before the new policy, higher-education reform was stymied for decades by curricular dictates focused on rote learning (called “mugging up” in India), preparation for high-stakes examinations, and premature specialization.
Starting in the ninth grade, students choose between science, arts, and commerce. Four years of high school are reduced to an exam in each subject, conducted by one of several examination boards serving tens of millions of students. Once they complete these board examinations in twelfth grade, students then prepare for specialty entrance examinations if they want to pursue engineering, law, or medicine. Their scores on examinations at each stage follow them at every subsequent stage and switching fields during this process has been almost impossible. All these restrictions are now being relaxed for the better.

A confluence of factors has led to an urgency for change among policymakers, to the dismay of those who drew power from their mastery of the maze. First, the average gross enrollment ratio (the percentage of university-age students enrolled) was only 28.4 percent in recent years, compared with China’s 59.6 percent for tertiary education, even though both began the post–World War II era at low single-digit rates. Second, India has a young population: half of the inhabitants are under the age of thirty, compared with the aging populations of China, Japan, and the Western economic giants. This demographic advantage has been touted as promising a “youth dividend,” but the realization has sunk in that the higher-education system cannot scale up fast enough without opening the door more widely to autonomous private universities that can be scaled quickly. Third, the exponential growth of Indians going abroad for college—spending billions of dollars in the United States, United Kingdom, Australia, and elsewhere—was a wakeup call for India to build quality universities at home that adopt international best practices, and that students see as viable domestic options. Fourth, there is a new appreciation for the fact that ancient India was a hub of education and thought. Take Nalanda for example, a renowned monastery in Eastern India that was a center of Buddhism, astronomy, and other arts. Learned Chinese monks traveled across the mountains to study there and bring back books, some of which are the only surviving texts from that age, after invaders destroyed the monastery’s collection.

This history has become a source of pride. “Why can’t we recreate that today?” is a common refrain in Indian culture. After all, the rest of the world now recognizes India as a breeding ground of talent. The destruction of Nalanda and other centers of learning by invaders and colonizers has become a source of resentment fueling newfound confidence and determination. Finally, industry leaders are sounding the alarm about the inadequate preparation of the workforce for the changing nature of work, even in engineering, which was long regarded as providing immediate industry-ready skills. Leaders of the software industry, which has given India its first modern taste of international respect and leadership ability, increasingly bemoan the lack of fundamental cognitive skills, notwithstanding the paper credentials that certify acquisition of technical knowledge. Despite the incremental pace of change, liberal education is starting to gain acceptance, not
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just as an individualistic philosophy but also as a strategic national imperative to unleash talent and innovation. Private universities are sprouting like fresh shoots in spring. Suddenly, “interdisciplinarity” and “critical thinking” have become buzzwords that, until recently, cut against the grain of a hierarchical culture— one in which thinking beyond the knowledge required to get a good job was the domain of tradition and family. Such buzzwords connoted idealistic luxuries of an opulent West where children could do whatever they please. Now these terms imply advanced cognitive development.

Among the most recent visionary universities to spring up in this new dawn is Sai University in Chennai, the capital city of Tamil Nadu, India’s southernmost state. It was founded by software entrepreneur K. V. Ramani, who also serves as its current chancellor. His software companies were among the few fledgling startups that launched India’s software industry in the 1980s, when tight import and foreign-exchange restrictions made operating these enterprises such an uphill battle that even importing desktop computers was a nightmare. Later, he helped organize his fledgling competitors to form the National Association of Software and Service Companies, an organization that tried to persuade the government to recognize India’s future in software and to consequently lower commercial barriers to entry. Today, he and his fellow startup founders from that era are credited with seeding an industry that brought India to its current position as a major exporter of software, the most sought-after provider of competitive tech jobs, and the most powerful engine of socioeconomic mobility.

Many private institutions in India have financial models in which profits from auxiliary enterprises like Ramani’s software companies are invested in the university. In this way, the university can become financially self-sustaining, and even profitable for the founder and/or sponsor, although it must be a nonprofit organization by law. Ramani represents a rare instance of pure philanthropy, however, with no business interests linked to the university. Instead, he has donated most of his acquired wealth to a trust that provides the seed funding to get the university on its feet.13 Equally inspired by the altruistic opportunity to impact a region of the world bursting with talent but underserved by the system, and encouraged by deregulation, I returned from the United States to serve as Sai University’s founding vice chancellor. Rarely does one get to start a university from scratch. And rarely does one encounter the paradigm shift currently seen in India, where the status quo is being disrupted and fresh ideas are changing higher education.

Such ideas are exemplified by Sai University, one of a group of so-called new-age universities moving into this unprecedented space. It is a “state private university,” a designation of the central government, which means it is private but can only be established by an act of the state legislature. It was the first of two such universities created in Tamil Nadu, and one of many launched by private philan-
The trajectory of private universities, which constitute the fastest growing sector in Indian higher education, also suggests that they will soon overtake public universities funded by the states, which remain the most common type of institution. Another interesting and related category resulted from the UGC Act of 1956 that prohibited the establishment of private universities, but created a small loophole, such that an institution could be “deemed to be” a university if it met certain benchmarks. These institutions (uniquely Indian inventions) cannot have the word “university” in their title. Thus, most call themselves institutes, even though they are universities in all but name. Now, private universities are permitted in this category and can even be called the same.

Sai University admitted its first undergraduate class in 2021, during the first two years of the COVID-19 pandemic. Due to the resulting lockdowns and quarantines, the university operated online at first. After restrictions were lifted, it moved to a temporary campus, and finally to its permanent campus located near an emerging corridor for education and information technology that runs parallel to the coast of the Bay of Bengal. A master plan has been completed for the one-hundred-and-three-acre property situated in a new tech park, expanding southward from Chennai, and three buildings have been constructed as part of the university’s first academic block.

Speaking as its vice chancellor, Sai’s vision is to build a globally eminent university based on principles of liberal education designed to harness talent; develop independent, critical thinkers; and forge socially conscious citizens hungry to discover and pursue their skills. “Spark the imagination, liberate the mind” is the motto behind our mission to develop talent, not just churn out degrees. Thus, our principal innovation has been to expand the possibilities for cross-disciplinary education beyond what has been envisioned to date in India. Liberal arts education is catching on, but it is still viewed narrowly as excluding the sciences, engineering, and law, whose education tracks start at the undergraduate level. By contrast, Sai University characterizes its liberal education philosophy to include the humanities, sciences, technology, and law.

This inclusive disciplinary organization of knowledge and education has been essential to the advancement of expertise in and mastery of subjects, which can provide incalculable benefits to society. In technical fields, early specialization has given India its first sense of confidence and esteem since colonial times. A deep dive into disciplinary rigor is an essential feature of education and professionalism that yields social assets. At some point, however, the vertical slicing of knowledge that creates a hierarchy of subjects also yields diminishing returns, if lateral relationships between subjects are not also explored. Exponential creation and expansion of knowledge has changed its geometry. Knowledge is no longer one dimensional, from the basic principles of a discipline to its complex struc-
ture. It isn’t even two dimensional with disciplinary verticals that maintain cross-disciplinary connections through interdisciplinary programs. Its multidimensionality expands with more research and innovation. Yet despite these developments, the organization of universities remains opposed to change, because hierarchical organization of disciplines is easier to manage. As business schools grow, for example, they want to create their own departments for economics rather than continue the messy process of collaborating with the original departments. It’s frustrating to manage teaching loads when resources are controlled in this way at the school level.

In light of these structural concerns, we have no academic departments at Sai University. But I fully expect that pressure will grow toward traditional departmental organization because that’s what faculty are familiar with, and because departmental autonomy has the advantage of tailoring practices to their unique disciplinary requirements. Some departments need wet labs while others need practice rooms. Some need high-performance computing while others need rare manuscripts. Nevertheless, a distinct intellectual climate emerges when there are no departments, and some of the finest students thrive on the conversations and interactions that grow in these environments.

Although we don’t have departments yet, we do have distinct schools. This was a necessary compromise between crossing intellectual boundaries and overcoming mental and bureaucratic hurdles. For example, students and faculty in a bachelor’s of technology program expect to be associated with a school that has a corresponding technical name, such as a “school of engineering,” while the regulator for legal education may require a law school. You can’t change everything at once, however, so the technical school we created is called the School of Computing and Data Science. We selected this name (at least to start with) over other subjects that represented engineering because computer science is the most popular major in India, and because we believe the future holds unlimited opportunities for cross-disciplinary collaboration in research and innovation.

Computer science and data science are independent disciplines, but they are also tools that can be used together. Most undergraduates will go on to jobs that apply these technologies simultaneously in other domains. Doctors will need to understand data science if they want to use it to improve health care, for example. Lawyers will need some rudimentary understanding of blockchain if they want to keep up with the inevitable shift toward smart contracts. Music producers will need to understand the structure of music if they want to go into the digital music industry. And many professionals in sectors increasingly impacted by artificial intelligence will need grounding in the humanities and analytic philosophy if they are going to apply machine learning so its benefits outweigh its risks, and if they are going to do more good than harm. The social media website X, commonly referred to by its former name Twitter, started as a cool technical innovation but
must now grapple with issues such as censorship, misinformation, and harassment that have profound consequences for humanity, and the platform has faced criticism for its oversight.\textsuperscript{19}

Failing to explore synergies across disciplines comes with an opportunity cost to education and the advancement of knowledge. We need to constantly find organizational schemes that challenge our tribal impulses and that put the mission of learning ahead of administrative convenience. Nowhere is this more urgent than in India, where global issues such as educational divides, gender and income inequality, and pollution are magnified, but where new solutions should also emerge. There are no major problems in the world or any part of it that can be solved by individual disciplines on their own.

The intellectual silos in India were so rigid that even combining one branch of engineering with another is now hailed as an interdisciplinary innovation. Still, most engineering colleges offer admission to a specific branch of engineering, and switching is difficult. Although students with the highest rank on the Joint Entrance Examination (JEE-Main) get the branch of their choice (likely computer science, the most sought-after specialization), an almost irreversible life decision that follows them to graduate school and employment.\textsuperscript{20} Separating college admissions by field forces high schools to devote their curriculum to preparation for all-important entrance exams, even at high schools led by innovators eager to embrace liberal education.

This separation also complicates disciplinary collaboration at the college level. For example, at one American university, eight of its ten constituent schools have environmental programs that have minimal interaction beyond individual faculty who are willing to walk across campus to different program buildings. To add more confusion, “environmental science” becomes “civil engineering” in the engineering school, “public health” in the school of public health, and “biology” in the school of life sciences. While we need these disciplinary specializations for research, we need even more to prepare undergraduate students in ways that encourage them to make interdisciplinary connections. How should the design of a dam be influenced by migratory patterns of fish? How should data science shape environmental policy? What is the economic impact of pollution? Such questions demonstrate how often multifaceted problems call for multifaceted solutions.

Students typically earn undergraduate degrees between the ages of eighteen and twenty-one, when their brains are still malleable and their minds amenable to being expanded at the speed at which the world is changing. Taking intellectual risks becomes more difficult after completing undergraduate education, graduate education is necessarily more specialized, and once a person gets a job and takes on more personal responsibilities, the price of intellectual risk increases. An undergraduate education is the last best opportunity to stretch the mind in ways that
established professions do not, with minimal consequences for errors. That, in a nutshell, is one of the most compelling reasons why undergraduate education must be liberal, and why, consequently, Sai University champions liberal arts education starting at the undergraduate level.

Engineering remains the dominant aspiration for college education in India, however, and preparation for the JEE-Main remains the exclusive focus of many stakeholders during students’ four years of high school. Engineering is typically taught at stand-alone institutions, the vast majority of which have names like “XYZ Institute of Technology,” emulating one Massachusetts institution that is revered in India perhaps more intensely than in its home country. (And indeed the most popular value of X is M, at least twenty-seven by my count.) Some new-age universities have launched multiple schools within the same institution, and the NEP2020 strongly encourages the transformation of stand-alone institutes of technology into multidisciplinary universities.21 A few liberal arts institutions have sprung up in India, but it’s still a struggle for students and parents to grasp that liberal arts can also include the sciences. Thus, “liberal arts and sciences” has become a way to make the label palatable to a mindset oriented toward science and mathematics.

Despite these collaborative approaches, mental silos persist. Liberal arts schools, which award mostly undergraduate degrees in the arts or sciences, are still seen as distinct from schools of engineering, which award the degree regarded as the coin of the realm in India: the bachelor’s of technology (or BTech). Some universities offer a BTech or an undergraduate law degree from a school embedded within the university, but none integrate these specialties into liberal undergraduate education as Sai University does.

At Sai University, we strive to create as much of a cross-disciplinary ecosystem as possible while preserving disciplinary rigor. All undergraduates are required to take a set of foundation courses: among them, Global Challenges; Frontiers; Environment and Sustainability; Writing and Communication; and Critical Thinking.22 The first two courses are designed differently from most college courses. Global Challenges exposes students to current issues – environment, war, migration – under the guidance of leaders who address them. While Frontiers uses the same format to study innovations in the arts, sciences, and technology, both are colloquium-style courses, meaning a different speaker interacts with students each week, either in person or online. Further exposure to the big issues of our time is left to discussions beyond the classroom. This model is typically seen only at the graduate level, since high school and undergraduate level textbooks tend to focus on a discipline’s building blocks. This model also gives motivated students a way to plug into powerful international networks. Nowhere else in India can a first-year undergraduate email a leader in cybersecurity at Stanford University, or a leader in environmental sustainability. These direct contacts don’t
substitute for travel abroad, but they enable students to feel connected internationally, even while at home. The model raises their awareness of postgraduate opportunities abroad and of emerging trends and careers.

Indians place a premium on higher education but have a low opinion of the domestic system that governs it. Case in point: India represents half the world’s college-age population, the highest of any country, but a staggering 72 percent (or roughly seventy-one million individuals) are not enrolled, despite a yearning to advance themselves. And those who are enrolled do not receive the caliber of education they seek. Competition for the miniscule number of seats at quality institutions is also fierce, and the pressure on students to prepare for national entrance exams continues to be a major source of stress. Considering their domestic options, the number of Indians applying for undergraduate programs abroad is increasing exponentially, and the amount of money spent by these families to send their children abroad is staggering, particularly if you contrast tuition in India versus the United States.

Sai University is roughly one-tenth of the cost of a private, nonprofit university in the United States. Even among those who attend a domestic college, most Indian students say they want to go abroad for higher studies. While this flight could be attributed in part to the lure of economic opportunity in the West, my conversations with students suggest that cynicism about their constrained domestic system is also a factor. Students today know what their peers are experiencing at college elsewhere, thanks to the internet and social media. Yet despite this disenchantment, there exists a sizable group of students who prefer to stay in India for college, or cannot afford to go abroad, and who eagerly welcome new domestic institutions that offer the kind of education they might receive abroad. This is the vacuum that Sai University and other new-age universities are filling.

Politicians and policymakers cite the relative youth of India’s population (in contrast to the aging populations of China and the West) as a source of economic hope. But this so-called youth dividend could become a liability if young people don’t have access to education that empowers them to fulfill their aspirations or attain positions that are relevant to their future, as the world around them changes. The expansion and reform of higher education in India is a race against time. For that reason, our goal is to make Sai University an attractive domestic option for students who want something different that heretofore they could only receive abroad. In the long run, we would love to see the university become a destination for students worldwide.
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ENDNOTES


3 Ibid., 3.

4 Ibid., 5.


15 University Grants Commission, The University Grants Commission Act (as Modified up to the 20th December, 1985) and Rules & Regulations under the Act, 1956.

16 There is too much historical regulatory meandering and grandfathering in the system to be able to make it clear in an essay like this, so a short recap is being provided for those interested in learning more about this historical shift. The newest category, which paved the way for Sai University, is State Private University. This means the institution is private but must be established by an act of the state legislature. Sometimes we call such institutions Private as shorthand for State Private University. Deemed Universities are also private but were given that status by the UGC (that is, the central government). The distinction is becoming less relevant as regulations are being relaxed, but State Private Universities had more autonomy from their founding because they were permitted as part of a process of deregulation from the central government, giving the Indian states more latitude. Deemed Universities were given that status much earlier, and therefore were more heavily regulated. Some Deemed Universities also have multiple colleges in different states, so they don’t fall into any one state.


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24 At Sai University, average annual fees for residential undergraduate students total an estimated 480,000 Indian rupees (or roughly US$5,797) for the 2023–2024 academic year. In comparison, at private nonprofit institutions in the United States, the average annual total cost for first-time, full-time undergraduate students living on campus was US$55,800 (or roughly 4,620,256 Indian rupees) for the 2021–2022 academic year. All currency conversion is based on the xe.com exchange rate on March 12, 2024. See Sai University, “Sai University Academic Programs 2023–Fee Structure,” https://saiuniversity.edu.in/sai-university-fees (accessed March 12, 2024); and National Center for Education Statistics, “Price of Attending an Undergraduate Institution,” Condition of Education, U.S. Department of Education, Institute of Education Sciences, https://nces .ed.gov/programs/coe/indicator/cua.