Digitalisation in Southern Powers: Growth and Transformation

An Indian Higher Education Perspective
From Demographic Disaster to Digital Dividend

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Education is a critical building block for national growth, social harmony and economic progress for any country. It is a necessary condition for a nation to achieve its Sustainable Development Goals. Both access to education, and the quality of education, are important parameters to ensure active progress towards meeting development goals.

India's mandate is even more crucial, considering its vast population. Yet, India does extremely poorly on both access and quality.

With more than 1.5 million schools and more than 250 million students enrolled in them, India's school system is one of the largest in the world.[i] In higher education, we have the second largest student population in the world with nearly 34 million students enrolled across more than 874 [ii]universities and nearly 38,000 colleges.[iii]

What's more: The nation is expected to add almost 10-12 million people to its workforce every year over the next two decades, with the working-age population crossing the 1 billion mark by 2030[iv], surpassing even China and becoming the world's largest working-age population.

Untangling the challenge

In this paper, we examine the twin problems of access and quality, through the lens of India's higher education. The insufficiencies, inadequacies and ill-preparedness of the higher education segment are a fair representation of the massive challenges of the country's overall education landscape.

India's higher education (HE) needs urgent, immense intervention and support. HE is what will transform India's so-called demographic potential into a productive force for development. But, the challenge to get this right is daunting.

The numbers tell a grim story.

Let's look at the current Gross Enrolment Ratio (GER), an important metric to judge level of access of education. Even today, the GER for India is just 24% for the 18-23 age group.[v] This includes distance education students. In most of the advanced countries, the ratio is close to the 50% mark.

GER is the starting point for evaluating progress in HE but it is a limited, insufficient marker. It stops at enrollment. It doesn't examine learning outcomes. "Quality GER" would actually be far lower in India although, unlike in primary education, standardised benchmarks for HE are not well developed.

In India, neither quantity nor quality are likely to get significantly better anytime soon, if we look at the investments India makes in education.

The scale at which we have to do this, and the speed with which we have to do this has never been attempted, other than in China, which has invested massive public spending, of a scale for which India doesn't have the resources.

At around 4% of its Gross Domestic Product (GDP), India's expenditure on education lags behind that of comparable economies, which typically spend at least 6% of their GDP on education. As it gets a fraction of the budgetary allocation on education, things are worse in HE.[vi]

For example, China spent nearly $565 billion on education in 2016, more than 60% of which was government spending. Out of this, nearly $145 billion was spent on higher education.[vii]By contrast, the Government of India spent a mere $12.5 billion on education sector of which about $4.5 billion was allocated for higher education.[viii]

India is in sharp contrast to China, if we are to take the public-private investment split, as a parameter. For India, it is nearly impossible to reverse this split. While private investment has come in to supplement public spending in education, the Indian government has been unable to meet the country's education demands. Almost 70% of all enrollment, and all educational institutions in India, are private.

In fact, in the K-12 segment, it's close to 50%, a sharp contrast from other nations where primary and secondary school education is often a public good.

It is evident that India has already "outsourced" education to private entities, in school as well as higher education. There is also a substantial capital drain out of India, in high-quality higher education, with Indian students spending nearly $10 billion a year on college education overseas. A million Indian students go abroad for higher education.

The quantum of investment needed to fix access and quality of education, is immensely challenging, even for the private sector. Not everyone can invest the vast resources India needs.

Even when investments are made, regulatory friction and philosophy are clear obstacles for our HE sector.

A quarter of a century after economic liberalisation, the harsh reality is that HE, much like healthcare, it remains trapped in unwieldy and unprogressive state control. Seventy years after Independence, we are still struggling with the right-fit regulation for our bricks and mortar universities. Especially when it comes to private players, without whom we can't hope to make tangible progress.

The current regulatory framework begins with creating huge barriers to entry. We can fool ourselves into believing that this ensures quality; that it keeps fly-by-night operators away. Unfortunately, that isn't true. The *licence raaj* is very much alive and kicking in Indian HE.

In fact, current regulation has created a vicious cycle. Genuine philanthropic players are scared to enter and commercial profiteers – in the garb of non-profits – who can work the system, make hay.

Private HE evokes two fears: first, that it is expensive and that "investors" will fleece students. This sentiment guides our regulation. The second important concern is that private HE is by definition poor quality.

There has recently been some smart thinking at the higher-quality end on this. The "10+10" policy to free up ten public and private institutions from restrictive regulatory control and create "Institutions of Eminence" is under serious consideration.[ix] This is not a new idea: China's C9 League and Russia's Project 5-100 (5top100.com) are similar, and are making waves in HE globally.

Yet, even these incremental fixes won't serve our purpose. Although we must actively encourage not-for-profit philanthropic investment in HE; and improve the regulatory mechanism that governs and monitors such institutions, even the most concerted expansion and investments in this model won't suffice.

A new vista: enabled by technology

To move towards our objective of significantly raising our GER with any seriousness, we can't afford to depend on traditional models; mainly, large physical campuses.

Never before in the history of the human race have we been confronted with the scale of the challenge that India faces today. If traditional models and methods will not work for our unprecedented problem, is there a radically different approach to education and learning that can help Indian youth achieve their aspirations, and live to their full potential? If not, our much-vaunted demographic dividend of the world's youngest population all the way to year 2025 is going to turn into a serious demographic disaster.

How can our HE system respond and prepare to skill, re-skill and upskill this massive cadre?

Much as India has had to "leapfrog" on mobile internet and device access, our education solutions will have to be disruptive, non-traditional and technology-enabled.

Digitalisation and technology are the only way to craft a sustainable solution to India's education crisis. Let's be clear: this is not technology to digitalise existing classrooms, or offer incremental features, but it is to build new classrooms.

It is only scalable, customisable technology that can deliver affordable, sustained and high-quality education to the large numbers we need to educate and make employable in short order. Technology provides India the potential to take our challenge and convert it into an opportunity.

Yet, for edtech to be a truly transformative agent, in HE and primary education in India, it will need to transcend beyond being a supplementary force for existing learning systems. It will have to help us build backwards from the future.

The uptick in internet penetration, as well as increased access to smartphones is an encouraging foundation to attempt this.

There are nearly 400 million internet users in India right now. By 2025, there will be more than 850 million online users. By 2021, we are estimated to add 180 million new users, to the current smartphone user base of 290 million.[x]

Education experts and observers say some of the trends powering edtech – and the subsequent impact they might have – are likely similar to other milestone epochal shifts, such as the introduction of professional degrees, or linking college-leaving certificates to job opportunities.

Just as aviation changed travel, telephone changed communication, social media changed news, e-commerce changed retail, edtech will transform education. India is even more uniquely poised to benefit from the advantages edtech offers.

Encouragingly, today's edtech efforts are being built with technologies that are more tested, intuitive and advanced. No longer does technology mean mere access to the internet or the presence of a computer in the room.

Advanced technology has made interactivity more real and provided the added benefit of student analysis by incorporating key Business Intelligence features that many edtech platforms now offer, delivering better quality of education.

Think of a typical university classroom and a typical teacher. There is no way a teacher can standardise her own teaching to a base line – batch after batch. On any given day, the quality can differ from the day before, month before or year before. It's why learning outcomes in physical classrooms are variable.

Quality can be *relatively better* or *much better* than what is out there. Online education helps minimise and control the variables. To begin with, everyone has access to the best teachers and the best content they have to offer. Let's take an example from the way the world of music was transformed: long-play records made the best singers accessible to a larger base of music enthusiasts.

It's important we articulate this quality boon effectively - to students, employers and education providers. There is a perception that edtech-enabled programmes, much like distance learning courses and vocational education, are cheap, low-quality alternatives to traditional HE.

In the "leapfrog" opportunity highlighted earlier, India can build case studies and examples that other countries can be inspired by and learn from.

Despite the many inherent advantages, edtech isn't a solved problem yet– anywhere in the world. The reality is that most contemporary initiatives in this segment, and the successful business ventures that have spun off them, supplement existing programmes and curriculums. Some do go beyond merely e-enabling the current learning infrastructure by adding analytics and other features but none of them yet substitute or transplant the dominant learning model of the physical classroom.

How can government policy and thinking accelerate this objective? Can India take the lead on crafting an ambitious but pragmatic policy for online education? Most online education ventures operate in a regulatory vacuum. They are more "companies" than education providers. Can, or should, government policy establish guidelines and national objectives?

As private players innovate on curriculum, academic delivery and learning outcomes, the government can craft an edtech policy that will enable and urge its development into a high quality, scalable option.

This policy should attempt to balance the dual objectives that confront education administrators and national governments everywhere: excellence, on one hand, and increased access, on the other. If the policy can also evangelise the benefits of a good-quality digital education, and create awareness around it, India can give herself an opportunity to create a viable and sustainable solution to meet the daunting and urgent education mandate.

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[i] http://www.deccanherald.com/content/600213/overcoming-challenges-education-sector.html

[ii] https://www.ugc.ac.in/oldpdf/consolidated%20list%20of%20All%20universities.pdf

[iii] http://www.indiaeducation.net/universities/

[iv] https://www.pwc.in/assets/pdfs/future-of-india/future-of-india-the-winning-leap.pdf

[v] http://timesofindia.indiatimes.com/india/share-of-spend-in-government-expenditure-gdp-on-education-falling-for-3-years/articleshow/56991039.cms

[vi] http://www.livemint.com/Education/tj0GgGojuEbwLN1SCc8eSJ/Indias-education-spending-needs-a-course-on-accountability.html

[vii] http://www.chinadaily.com.cn/china/2017-05/04/content_29203196.htm

[viii] http://www.livemint.com/Politics/hkjZw2CFY9u4xGHDk6QftN/Union-budget-2017-Education-outlay-increases-99-to-Rs796.html

[ix] http://www.hindustantimes.com/education/20-world-class-research-varsities-to-be-called-indian-institutes-of-eminence-will-come-up-soon-javadekar/story-7yRZL7neWCVhjQtTmYjphL.html

[x] https://home.kpmg.com/in/en/home/insights/2017/05/internet-online-education-india.html