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Using technology to jump start learning

The right of children to free and compulsory education is perhaps the biggest inclusive step taken by India since independence. The delay in enacting the law has caused the country to slip deeper into illiteracy, poverty and social discrimination.

Many would argue that this landmark legislation should have preceded the promise of "Roti, Kapda and Makaan". Or perhaps Indian planners have finally heeded to a Chinese proverb: "Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime."

The delay has blunted India's oft-touted demographic advantage. The problem of the unlettered has grown four times since independence. The gap between the educated and not-educated has manifested itself as social turmoil with rising crime and hatred.

When India tried pulling up those below the poverty line by guaranteeing rural jobs, it paid a disproportionately higher price compared to what it would have invested in education a few decades ago.

Let's look at the future with a sense of optimism and look at a few tested ideas on what we can do to eradicate illiteracy and provide the right skills to our youth.

Technology is the best way to get all the 250 million children in the 6-14 age group into schools and to keep them in the system till they have significant skills 'to fish for themselves'.

We need to integrate the National ID plan with an e-governance system for all schools. With e-governance applications in all schools, technology can help the government convert schools into a single point for maintaining and updating records for everything from healthcare to education, employment to old age pension and also check leakages.

Think of a scenario where the National ID card would be a live card, with updated information on status of dependent children - matched with the e-governance data pouring in from schools, it will ensure that the unlettered can be brought back into the system by a "truant officer" akin to those in the West.

We need an education expert system that generates extensive reports based on a student's performance in academics, extra curricular activities and library reading habits. This system needs minimal investment and training of teachers. And yet it is capable of answering questions like: Why is the performance of a class dropping in a particular subject? What is the school participation rate in sports, extra curricular activities? What is the performance of students who have borrowed (and hopefully read) a book on Vedic Maths?

An existing application incorporates the best practices from global educational systems, covering over 100,000 schools, 300 colleges and 130 universities by over 100 MGRM (May God Rehabilitate Mankind) analysts.

It is capable of getting loaded on to existing computers and can keep a tab on midday meal schemes, Sarva Shiksha Abhiyan or whatever else is being offered in the school. The system can interact with a governance platform through a binding tool, OmVcard.

The OmVcard can be used to check teacher truancy. Deployment of a secure biometric ID for a teacher can ensure that he spends more time in the school. Teacher performance in a 'single teacher' school can be monitored remotely, both by his own attendance as also by the academic performance of the pupils.

If this system gets linked to the national e-governance system, the possibilities are endless: analysis of reasons for school dropouts, teacher accountability, a whole lot more.

We have examples of 30 students in a government school in Sakalvara, a sleepy village near Bangalore, who have a simple handheld device, one larger than the iPhone, with school lessons available as videos.

The ePods, each costing Rs 4,000 and funded by a Rotary Club, have content for Classes 8 to 10 in five languages. There is no reason why this ePod cannot be adapted for a class room to change the way education is administered and managed in government schools.

There are at least 50,000 government schools in the country with a computer lab built by companies like NIIT and others with state government funds where digital content could be deployed.

We also have over 100,000 teachers trained to use computers by CISCO, Intel and Microsoft to teach other subjects. Just imagine if each of these teachers were to transfer this knowledge to 100 others in the next five years.

The success of the right to education will rest on the use of technology in education and education administration in partnership with private players with a successful track record of creating innovative and cost-effective solutions. And perhaps to integrate efforts of what Kapil Sibal and Nandan Nilekani are planning to do to make the right to education become a reality through technology.

The country expects the government to combine the benefits of technology with smart e-governance to bring a smile on the faces of 250 million young boys and girls for times to give come.

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