“Successful Ed-Tech solutions deliver big at scale, cost and effectiveness”- Dr. Brij Kothari

Of all the skills that an educational system aims to impart in primary education, reading skills are arguably one of the most critical ones. Without a good foundation in this most elemental skill, the quality of the entire educational system is severely compromised. The quality of reading determines the quality of education.

Research by Kothari and Bandyopadhyay (2009), found that a child who remains a weak reader by the end of Grade 5, tends to become an even weaker reader in youth and adulthood. That is because the majority of students who remain weak readers even after 5 years of primary schooling, do not engage or encounter reading opportunities later in life that could continue to keep them on the path to lifelong reading skill improvement.

PlanetRead’s Same Language Subtitling (SLS) is a very simple solution that can address the weak-reading challenge, even in the difficult conditions of rural India coupled with rampantly low quality of instruction in schools and reading support at home. If most children engage in at least 10–15 minutes of daily reading practice, from the time they begin to receive reading instruction in Grade 1, they can be expected to read at Grade 2 level, latest by Grade 5. If at present only 5–12% are
reading at level in Grade 2 in the Hindi states, the figure can be improved substantially.

The way SLS does it is by making reading practice inevitable, as an integral part of the entertainment already consumed on TV. SLS is the simple idea of subtitling audio-visual content—TV programs and especially song-based content such as film songs, music-videos, and folk songs—in the ‘same’ language as the audio. Word for word, what you hear is what you read, preferably with every word highlighted in timing with the audio. Thus, the lyrics of a Hindi film song are subtitled in Hindi, a Tamil song in Tamil, and so on in every language.

READ Alliance got a chance to speak to the brain behind this idea; Dr Brij Kothari, President, PlanetRead. His academic interests include literacy, primary education, and use of information technology in international development. His work on Same Language Subtitling on TV for mass literacy has received several recognitions. Check out his thoughts, insights on how this simple idea can revolutionize the way we are teaching our kids.

**Ques.** Can you share key insights on reading in India based on field implementation and research by PlanetRead?

a) India’s literacy rate is a poor measure of India’s ‘ability-to-read’ rate. We don’t have an official indicator for the latter but several studies indicate that over half the officially “literate” people in India cannot read simple texts, like newspaper headlines. Based on several studies, including our own, we estimate that India has around 310 million good readers, 270 million non-readers, and the largest group of over 460 million who are neither here nor there, so we call them weak-readers.

Weak-readers are people counted as “literate” in the Census but who cannot read anything, although, they may be able to write or draw their name and recognize a few letters. Therefore, the term “literacy rate” is confusing but policy makers love it because it allows them to include anyone who’s barely begun on the path to reading. And once someone can be declared as “literate” the responsibility shifts from the state to the individual.

As a nation we are heading towards a scenario not too far away when India will be declared 100% literate, and yet, 60 to 70% will not be able to read much in their lifetime. That is because policy makers have not comprehended deeply, i.e., beyond lip service, the foundational importance of quality reading skills for a host of areas in
development—basic education, health, girls and women’s empowerment, a knowledge and information society, Digital India and so on.

b) By definition, a disruptive innovation is expected to address the reading challenge at unprecedented cost-effectiveness and scale. Such solutions are rare, but when they do emerge and mature with demonstrated potential, in other words, buffeted by evidence, they cannot forever remain trapped in a ‘project’ cycle. They need to graduate from project to program to policy. But while the various agencies involved in international development generally, and reading in particular, are geared to support projects, mechanisms supporting transitions from project to program to policy, are weak at best and non-existent at worst.

c) Reading is a fairly complex skill that can only be mastered over a sustained period of engagement and practice. There are many approaches to teach the basics of reading but to get to functional ability and eventually automaticity, there is no escape from frequent and, very importantly, successful, meaningful and fun encounters with the printed word, over a long enough period.

India needs both types of disruption in reading, especially as it applies to resource poor people—Type 1 approaches to teach the basics well and Type 2 approaches that enable people to remain engaged in successful and positive print encounters for life. Since our schools and societies do such a poor job in supporting the development of basic reading for half the country, most reading innovations and projects, are necessarily of Type 1, but woefully lacking in scale. Type 2 interventions are far fewer, perhaps because they are difficult to conceive on a base of extremely weak-reading skills.

Ques. How do you get hundreds of millions of people to read something regularly and lifelong when they can’t read (although they can decode a few letters here and there)!

PlanetRead stumbled on a solution for this conundrum. Since its inception in 2004, PlanetRead has been building on a disruptive Type 2 innovation in reading, we call Same Language Subtitling or SLS, in a context of mass weak-reading skills. SLS is simply the idea of subtitling audio-visual content in the ‘same’ language as the audio. On popularly watched film songs, SLS can give reading practice to even the earliest of readers, or the weakest of decoders. What makes SLS disruptive?

A simple policy decision requiring SLS on all existing songs on TV in all Indian languages, would guarantee daily reading engagement for one billion TV viewers, for life. And at what scale? One billion TV viewers
could be reading 30 minutes every day, inescapably and automatically, at a cost of 10 paise per person per year.

**Ques.** Would the scale and cost of SLS be sufficient to make it disruptive?

No. Clearly, one has to ask if it is effective, especially for the 460 million weak-readers in India today and the 270 million non-readers who will also, in the near future, become weak-readers, thanks to the state’s efforts.

Several studies have found that a weak-reading viewer cannot but try to read along when watching a film song with SLS. In the process, reading skills are practiced and, over time, known to improve measurably and can transition a beginning reader to functional reading ability and better in 3–5 years.

The most critical aspect of weak-readers’ interactions with SLS is that they are positive (e.g., they get to sing along and know the song lyrics, as in Karaoke) and marked by success (the answer to the reading challenge is always immediately there in the audio). For most people these print interactions will be lifelong unless they stop watching films and other song-based TV programming, including, folk and devotional songs.

d) PlanetRead’s SLS innovation on mainstream TV is now scientifically established for imparting mass reading practice to a range of weak-readers. It is a solution that builds on the reading skills, however weak, acquired in formal, non-formal or informal systems. But because SLS is layered outside these systems, onto an entertainment system, it is relatively less complicated to implement, manage and sustain. In effect SLS offers people an opportunity to improve their reading skills without even realizing it, with practically no additional effort and dependence on anyone. We need more innovations in reading that offer greater control to people over skill acquisition and lifelong improvement. Programmatic solutions outside of daily routines have a shelf life. **We need more reading solutions that remove the constraints of time, space and affordability.**

e) In the READ Alliance project* that PlanetRead is currently engaged in, we have developed and are using SLS on 40 reading-levelled animated stories. The books are stories and animation, yet, reading along is inescapable. Children will eventually have greater control over this learning outside of school, when the content can be made available to them on media players, mobile phones and other screen already in their homes and lives. This is a solution in the direction of removing the constraints of time, space and affordability.
I have written about SLS and its impact on children’s reading skills here:

a.) SLS on songs: http://www.huffingtonpost.com/brij-kothari/reading-for-a-billion-eve_b_8075964.html

b.) SLS on animated stories: http://www.huffingtonpost.com/brij-kothari/bookbox-scaling-childrens_b_9424106.html

And talked about it here: https://www.youtube.com/watch?v=XRP4xfN89Ss

Ques. What are your thoughts about technology stepping into the educational landscape?

Technology per se in any landscape, not just the educational landscape, is neither good nor bad. The educational landscape has a graveyard of technology usages and ideas that didn’t work, yet, their proponents have tended to exaggerate their success. But despite many failures, technology in education never has and never will lose its promise and we will continue to explore solutions. The few solutions that succeed will deliver big at scale, cost and effectiveness. The mistake we make is that we are not ruthless enough in calling out failed ideas and not bold enough to scale the handful with proven promise.

Ques. What are the gaps in our current educational system that still need to be addressed? How technology can be helpful in overcoming those gaps?

Our educational system does a reasonably good job for 30% of the nation but has failed 70% of the population. But when it comes to
fixing, policy thinking and resources are disproportionately directed at the 30% who are not doing badly.

Speaking for the 70% that needs fixing, it is a simple logic. As James Heckman the Nobel Prize winning economist has shown convincingly, the earlier a nation invests in education and development, the fewer human resource challenges it will face in later years. Our policy makers ignore this in education and health, and therefore, end up fire-fighting problems that should not exist in the first place.

For example, there is no reason why more than half the children in rural India cannot read by Class 5. This is actually a national emergency, but since it has always persisted, it has become the norm. Rather than listing a litany of educational gaps, I would suggest fixing just one critical one because it has ripples through schooling and life that could be beneficial or catastrophic.

Define the right to quality education more specifically, such as, every child has a right to be able to read and do math at a minimum level (and that can be defined), by the end of Class 3. Teachers, administrators and the system can be made accountable to achieve this for at least 90% of the students, since 10% could have a learning disability. The system will then have to measure skill level, identify the struggling children early on and direct special attention and resources to them.

Once something like this is approached as a national mission, then technology can come in to support different elements like, skill measurement, program management, parental involvement and channeling of grievance if their child’s minimum education rights are not being met by Class 3, development of a print environment, and access to books and media to support basic reading and math.

Ques. Can Ed-Tech provide scalable and affordable models to cater to dire improvement areas in educational domain?

In principle, yes, Ed-Tech can play a ‘supportive’ scalable and affordable role, like, our SLS work is doing. But every tech solution will need to be judged on a case by case basis and there will be a few, generally simple ones, well integrated into what people are already doing, that have a greater chance of success.

Ques. Apart from PlanetRead, what are the other initiatives you have taken to address the gaps in Indian education system? Provide a brief overview of the same.
I have not done much outside of what PlanetRead and BookBox do. That’s because I do see ‘reading’ as a critical gap in the Indian education system, with far-reaching consequences. Besides pushing broadcast policy in India to make SLS mandatory on all songs on TV, in all languages, we are aiming to make all our animated stories or ‘AniBooks’ in a variety of Indian languages, available on TV as stories on demand.

We know there is a demand for our AniBooks with SLS on YouTube. Globally we are getting 2 million views a month and 75% are from India. This is growing rapidly in India, along with the growth in internet access, but the far bigger distribution opportunity that is already here is TV, with nearly 1 billion viewers.

*READ Alliance* is supporting PlanetRead to develop and integrate Animated Books to students in schools across Rajasthan, Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, and Chhattisgarh through outreach partners like Zaya Labs, Digital Study Halls etc. The main objective is to integrate these animated books into the schools and lives of children in Grades 1–3, and of 6–10 years old, to support the development of reading skills, for more than 20,000 students.
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