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17 DOESN'T ADD UP: MERE ACCOUNTING-BASED ICT NOT A GOOD STRATEGY

An undue emphasis on accounting-based accountability is proving detrimental to improvements in education, writes Dan Honig, making a case for deep interventions.

32 PHOTO FEATURE: BEYOND THE BLACKBOARD

22 ONE SIZE DOES NOT FIT ALL

In our Sattva column, Sulagna Datta lists how ed-tech in under-resourced communities differs from typical market-based products, and argues for thoughtful design and customization of those products.

26 TECH-ENABLED EDUCATION

Section 12 (1) (C) of the Right to Education Act furthers India's promise of inclusive education. Technology is showing the way to an easier, more efficient way of realizing that promise in spite of niggling issues, writes Meera Rajagopalan.

48 FOOD FOR DEEPER THOUGHT

A complementary food and nutrition program aims to combat malnutrition and stunting on underweight children in the Philippines, Len Cristobal finds.

Dear reader,

Education is hailed as one of the major solutions of the development puzzle. The emergence of technology helped us to dream further than we ever had: information, the basis of education, could now be transmitted more efficiently and cheaply than before. It seemed the goal of universal education was attainable after all, and it was enshrined in the Millennium Development Goals and its successor, the Sustainable Development Goals. Now, more than two decades since that promise, we have seen where the fault lines lie, and why, in spite of connectivity, learning is not spread as evenly as originally envisioned.

Perhaps, our hubris was responsible for thrusting a solution without addressing the core of the issue: factors such as teaching resource development, infrastructure, and, in some cases, even a lack of interest in formal education.

Technology's promise, however, are not merely confined to the classroom. We look at India's ambitious Right to Education Act, and how technology has enabled somewhat equitable opportunities. We look at a widespread technology—Same Language Subtitling—and how it might help reach the literacy goals of a sixth of the world, if not more.

We are pleased to introduce a regular column—The Sattva View—where Indian research and consulting firm Sattva share their experiences, observations, and opinions on various facets of working with and in the development sector.

We are constantly looking for ways to improve the magazine, and would like to receive your feedback. Please do write to editor@asianngo.org with comments and suggestions.

Warm regards,

Meera Rajagopalan
Managing Editor

1 Seventh Asia-Pacific Urban Forum (APUF-7)
October 15-17
Penang, Malaysia
United Nations Economic and Social Commission
for Asia and the Pacific (ESCAP), United Nations
Human Settlements Programme (UN-Habitat), and
Urbanice Malaysia

2 Transform Summit
October 16-17
Amsterdam, Netherlands
Ethical Corporation

3 Renewable Energy Cyber Security Forum
October 16-17
Berlin, Germany
BIS Group

4 SMART ASIA India 2019
October 17-19
Mumbai, India
Taiwan External Trade Development Council

5 Nudge Global Impact Challenge
October 21-23
Zeist, Netherlands
Nudge

6 SOCAP 2019
October 22-25
San Francisco, USA
JB Media Group

7 Social Enterprise World Forum 2019
October 23-25
Addis Ababa, Ethiopia
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8 Japan Solar + Energy Storage 2019
October 28-29
Osaka, Japan
Leader Associates

9 Women's Global Leadership Conference in Energy
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10 XII World Aqua Congress 2019
October 30-31
New Delhi, India
Aqua Foundation

11 Asian Clean Energy Summit 2019
October 30-November 1
Singapore
Sustainable Energy Association of Singapore

12 Unlocking Solar Capital: Asia & Financial Summit
October 31
Singapore
Solarplaza International BV

13 EduTECH Asia 2019
November 4-7
Singapore
Terrapinn

14 2nd International Conference on Future Smart Cities
November 5-7
Kuala Lumpur, Malaysia
International Experts for Research Enrichment and
Knowledge Exchange

15 Indonesia Infrastructure Week 2019
November 6-8
Jakarta, Indonesia
Tarsus Indonesia

16 AidEX Brussels
November 13-15
Brussels, Belgium
AidEx

17 14th ASEAN Solar + Energy Storage Congress & Expo 2019
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World's most liveable cities revealed
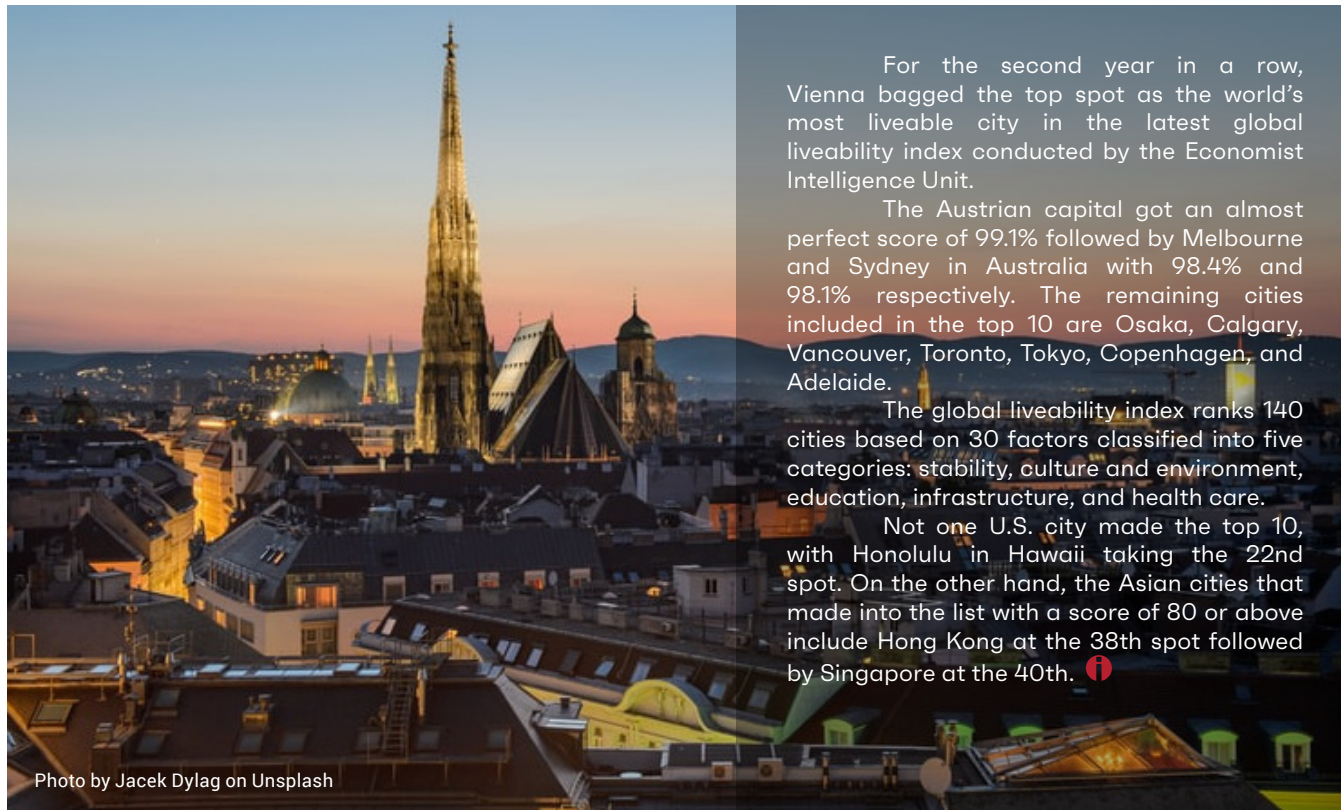
Photo by Jacek Dylag on Unsplash

For the second year in a row, Vienna bagged the top spot as the world's most liveable city in the latest global liveability index conducted by the Economist Intelligence Unit.

The Austrian capital got an almost perfect score of 99.1% followed by Melbourne and Sydney in Australia with 98.4% and 98.1% respectively. The remaining cities included in the top 10 are Osaka, Calgary, Vancouver, Toronto, Tokyo, Copenhagen, and Adelaide.

The global liveability index ranks 140 cities based on 30 factors classified into five categories: stability, culture and environment, education, infrastructure, and health care.

Not one U.S. city made the top 10, with Honolulu in Hawaii taking the 22nd spot. On the other hand, the Asian cities that made into the list with a score of 80 or above include Hong Kong at the 38th spot followed by Singapore at the 40th. ℹ️

Frequent natural disasters to make Asia-Pacific poorer: UN report

A new report by the UN Economic and Social Commission for Asia and the Pacific (ESCAP) revealed that frequent calamities cost the Asia-Pacific region nearly $675 billion, about 2.4% of its GDP.

According to the 2019 Asia-Pacific Disaster Report, recurrent disasters such as floods due to typhoons and drought continue to place marginalized communities in jeopardy. The study projects that by 2030, an estimated 56 million people in the region will live in extreme poverty.

If governments fail to adapt disaster risk resilience, the number is expected to double to 123 million.

Asia-Pacific being pronounced as the region with the highest risk to poverty is due to the region being home to hotspots where communities are particularly vulnerable to the effects of climate change. These
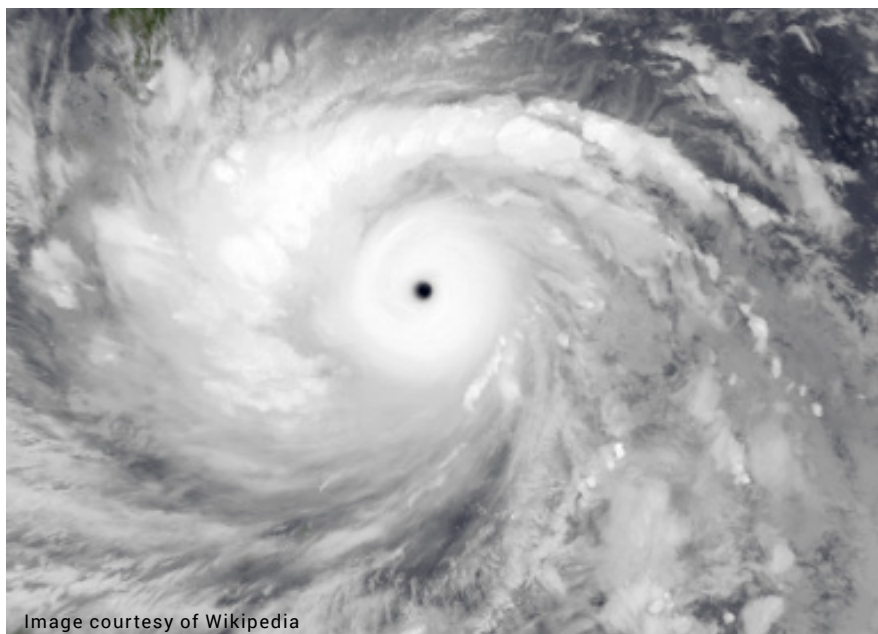
Image courtesy of Wikipedia

hotpots include the transboundary river basins of South and Southeast Asia, where poverty is coupled with exposure to ravaging floods on one hand and persistent drought on the other. ℹ️

New USAID lab to focus on resilience of rural families

A new lab at the University of California, Davis will focus on testing ways to overcome barriers that keep rural communities in low income countries in poverty.

The Feed the Future Innovation Lab for Markets, Risk and Resilience, or MRR Innovation Lab, backed by a five-year USAID grant of up to $30 million, will identify the root causes of poverty and food insecurity with a focus on resilience to help communities adapt and recover from calamities such as flood, drought, and even conflict.

The program is expected to yield scalable programs that national governments can apply to keep more communities out of poverty while helping those who are already poor. ⓘ

Photo by Muhammad Muzamil on Unsplash

. . . .

UNICEF accidentally leaks personal data of 8,000 online learners

Personal details of thousands of users of UNICEF's online learning portal, Agora was inadvertently leaked via email.

Details including names, email addresses, gender, and organisations of more than 8,253 online learners went out to nearly 20,000 Agora users. According to UNICEF, the data leak was caused by an error after an internal user ran a report.

Agora offers free training courses to UNICEF staff and members on issues such as data, research, child rights, and humanitarian action.

UNICEF issued an apology the day after the incident and ordered its technical teams to promptly disable the Agora functionality and allow reports to be sent, preventing such incidents from reoccurring.

Besides fixing the error in the functionality, UNICEF also wrote to all recipients of the leaked data, asking them to permanently delete the entire email, including all downloaded files. ⓘ

Image courtesy of UNICEF Agora

Real education should consist of drawing the goodness and the best out of our own students. What better books can there be than the book of humanity?

Cesar Chavez
Latin American civil rights activist and labor

E-learning is changing. And we will see new models, new technologies and designs emerge. So, let's drop the "e" – or at least give it a new and wider definition.

Elliott Masie
Educational technology expert credited with coining the phrase 'E-Learning'

Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important.

Bill Gates
Founder, Microsoft Corporation

Any teacher that can be replaced with a computer, deserves to be.

David Thornbug
Award-winning futurist, author, and consultant

I often tell my students not to be misled by the name 'artificial intelligence' - there is nothing artificial about it. AI is made by humans, intended to behave by humans, and, ultimately, to impact humans' lives and human society.

Fei-Fei Li
Professor, Computer Science Department at Stanford University

We need technology in every classroom and in every student and teacher's hand, because it is the pen and paper of our time, and it is the lens through which we experience much of our world.

David Warlick
Author, programmer, public speaker, and early adopter of technology in the classroom

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The **Good and Bad** of **Digital Technology** in **Classrooms**

The Good

Pro #1

Digital technology makes learning more interesting and interactive.

79%
of teachers in Germany believe that Virtual Reality (VR) would enable experiences otherwise not possible for students

71%
students say that they engage more with digital course material

Pro #2

Digital Technology enhances and increases skills

93%
of teachers agree that digital resources help their students' academic achievement

97%
students found adaptive learning technology helpful in retention

Pro #3

Digital Technology helps teachers improve their educational

73%
of teachers believe that technology allows them to respond to a variety of learning styles

Pro #4

Digital Technology encourages collaboration between students

Exposure to Fake News: Top 5 Countries

Country	%
Turkey	49%
Mexico	43%
Brazil	35%
U.S.	31%
S. Korea	30%

Top 8 Digital Transformation Trends in Education

Augmented Reality & VR

Social Media Learning

Artificial Intelligence

Internet of Things

Personalzed Learning

Gamification

Robotics

Data Management and Analytics

The Bad

Con # 1

Digital technology disconnects students from real-life interactions

In South Korea,
72%
of children own a smartphone by the age of 11 or 12 and spend an average 5.4 hours a day on their smartphones—about **25%** were considered smartphone addicted

In Singapore, 12-year-olds spend almost
46 hours
on their smartphones. On the other hand, 9-year-olds spend over 24 hours a week on their smartphones

According to a 2015 study conducted by non-profit group Common Sense Media, children
ages 8-12
in the U.S. spend six hours on online media, jeopardizing time spent with family

Con # 2

Digital technology can bring hazards inside the classroom

Hazards can include frequent trips or falls from trailing cables and electric shock caused by damaged wires and sockets.

Con # 4

Digital technology can be filled with fake or unreliable sources

23%
of adults in the U.S. alone have shared fake news, knowingly or unknowingly.

Con # 3

Digital technology encourages bad habits such as cheating

According to one study in 2012, **73%** of online students admitted to cheating on at least 1 of 14 non-proctored quizzes.

89%
of online students in the study above say computers and the internet play a major role in plagiarism

The most common ways students cheat in digital tests include screen sharing, smart apps such as those that solve mathematical equations, and impersonation.

SOURCES:
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- 6 Digital trends that will soon influence your classroom, Educational App Store, 2017
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- Where Exposure To Fake News Is Highest, Statista, 2018
- How VR Is Changing College Tours, VR Scout, 2018
- 5 Digital Trends That Will Shape Education In 2019, eLearning Industry, 2019
- 5 Clever Ways Students Cheat on Online Exams and How to Stop Them, 2019

Robots: Say "Ah"

Every morning, toddlers from more than 2,000 preschools in China meet Walklake without fail. Walklake is not the principal, but a smart robot designed to speed up health monitoring in schools. Children visit the robot, which can reportedly check for signs of illness ranging from blisters, fevers, and sore eyes within three seconds, with the help of an array of cameras and an infrared thermometer!
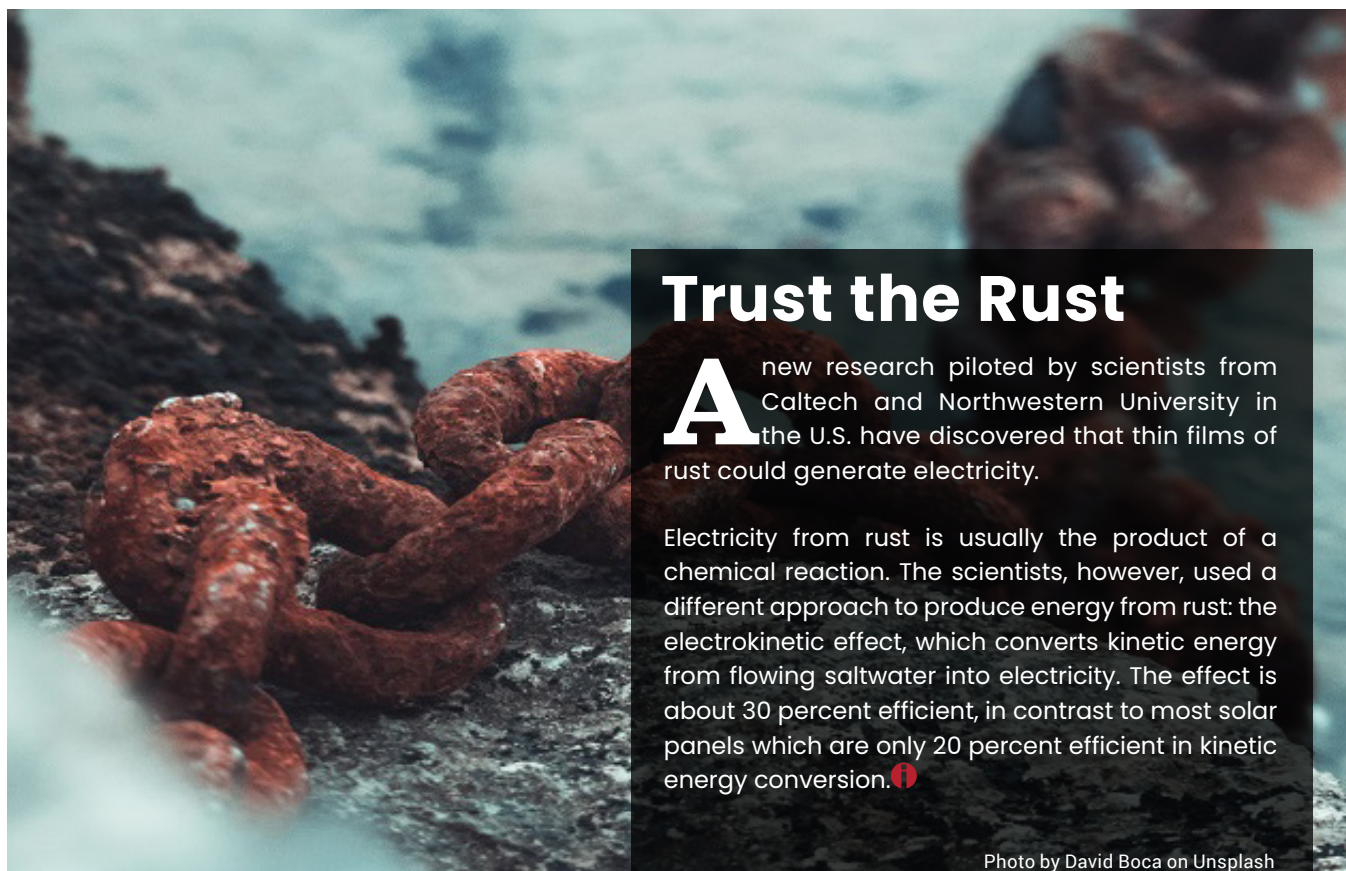
Walklake sends an aggregated health report to the principal and flags a possible student illness, so that manual checks can then be performed to decide if the student should be sent home for the day. 🛈

Image courtesy of Walklake

Trust the Rust

A new research piloted by scientists from Caltech and Northwestern University in the U.S. have discovered that thin films of rust could generate electricity.

Electricity from rust is usually the product of a chemical reaction. The scientists, however, used a different approach to produce energy from rust: the electrokinetic effect, which converts kinetic energy from flowing saltwater into electricity. The effect is about 30 percent efficient, in contrast to most solar panels which are only 20 percent efficient in kinetic energy conversion. 🛈

Photo by David Boca on Unsplash

A Cure from VR

A fear of heights? Climb the tallest building. A fear of crowds? Squeeze yourself in a sardine-tin situation with people. Sounds scary?

A Virtual Reality outfit might help you face your fears with zero risk, changing the way we treat certain mental health issues.

VR therapy outfit gameChange launched a clinical trial to seek how VR can help patients with schizophrenia and other mental disorders like anxiety. The idea of the trial is to spend time in virtual versions of stressful situations to help people cope with real situations. ⓘ

Photo by Giu Vicente on Unsplash

Go Loco for Coco

Image courtesy of Café Editha – Straws Coconut Leaves

In a continuous move to eliminate plastic, an eco-friendly alternative using nature's best is making waves in the sustainability scene.

Café Editha in the southern province of Surigao Del Norte in the Philippines is using rolled up coconut leaves, locally known as "lukay" as a substitute for plastic straws.

Restaurant manager Sarah Tiu said that she got the idea while on a vacation with her family. Because it's easy to make and is decomposable, the café has also used lukay as a lid for takeaway cups. ⓘ

Pain Points Discovered

A new organ in the human body that helps process pain has been discovered by scientists.

It has been thought that people perceive painful sensations through the sensitive nerve endings that sit below the outer layer of the skin. But a new study published in the journal Science revealed a new set of octopus-like nerves solely responsible for pain perception.

This new sensory organ is sensitive to pricks, and immediately sends a signal to the brain once pressure is applied. Scientists now want to study whether the nerves are connected to chronic pain, in hopes of developing new ways of managing pain. ⓘ

Image courtesy of WebMD

So Long, Suckers!

Photo by Егор Камелев on Unsplash

H umans can now combat mosquito bites without toxic insecticides, by using graphene-based fabrics.

Researchers from Brown University exposed human skin protected with graphene oxide, a flexible nanomaterial used to build solar cells, to live Aedes aegypti mosquitoes. They discovered that graphene oxide was bite-resistant due to its impenetrable properties.

When wet, however, the barrier goes off. Researchers then used graphene with reduced oxygen content, and despite not being breathable, found it effective in both dry and wet conditions. Trials are on to further refine the product, which could have substantial public health applications. ⓘ

Doesn't add up:

Mere accounting-based ICT not a good strategy

An undue emphasis on accounting-based accountability is proving detrimental to improvements in education, writes Dan Honig, making a case for deep interventions.

"Accountability" is a term incessantly bandied about in the social sector, and as Lant Pritchett and I argue in our new paper, it is, indeed, central to high-performing governance and welfare-enhancing service provision systems.

There is, however, a bit of a misunderstanding.

Rethinking "accountability"

Strengthening accountability is often taken to mean strengthening the reporting of what can be observed, verified, quantified—what we call "accounting-based accountability." Accounting-based accountability solutions will have substantial impacts in improving the efficiency and efficacy of governments in carrying out activities that are, by their analytical nature, logistical—say, post office delivery or vaccine delivery.

But most of what government does isn't like that; and, indeed, for high-functioning organizations which do things that aren't fully logistical, "accountability" means much more

than accounting-based accountability. Accountability in these organizations is "account-based," focused on a justifying analysis or explanation. Many accounts will involve the hard numbers of accounting, but the "account" and the "accounting" are not the same thing. The accounting is an input into a broader account of performance.

Accounting-based accountability interventions aren't likely to be good strategies for improving system performance.

Tech won't (often) solve accountability problems

Technology can do incredible things—but solving accountability problems isn't likely to be one of them. ICT solutions, from cameras to data management systems, primarily strengthen accounting-based accountability, which in our view is unlikely to work. We explore this in the Education sector, an area where Accountability ICT is often trumpeted.

The key elements of what teachers do is not amenable to the accounting-based accountability which Accountability ICT can strengthen. An education system that is centred around learning needs to deploy teachers who have adequate resources and capacities, and who act with sincere concern for the learning progress of each child. It is hard to reduce teaching to a list of "hard" characteristics (e.g., has a master's degree) or "thin" behaviours (e.g., is in attendance). "Acting with concern," much less "acting with sincere concern," for each child is not amenable to improvement with accounting-based accountability.

There are good reasons to worry that a focus on accounting-based accountability may not just be neutral, but actually detrimental, to system-wide performance. If people working in the education system invest time in collecting what can be measured and reported, they will do so by investing less time in what cannot be as easily accounted for—like teaching quality, individual instruction, relationship-building, responsiveness to parents

or other teachers, etc. If reporting becomes a tool of control it can constrain teacher autonomy, leading some of the best teachers to exit. Top-down control using accounting-based accountability channels may also demotivate teachers from learning about their students if the teachers cannot make productive use of that information.

So what do we do?

What is the alternative to Accountability ICT, and a focus on strengthening accounting-based accountability? Our answer is to focus on building locally embedded account-based accountability (both horizontally to peers and downwards to communities) in education and beyond.

Some, on reading this, may roll their eyes, imagining interventions unlikely to achieve scale. The scalability of accounting-based accountability is seductive; but it is a siren song that will often lead to shipwrecks on the long voyage of development. To say that each intervention must be "deep"—digging into the governance particulars in every given setting—does not mean that it cannot be broad, too.

However, neither accounting nor technology ought to disappear. Some of the metrics which are the focus of so much energy ought to stay. These metrics shouldn't be seen as answers to performance and accountability questions, but rather as inputs into a broader process of making an account.

Much of what is currently fashionable in education reform assumes that external catalysts—be they reformers from the capital or outside agencies—are going to provide critical transformative inputs. We think this is unlikely, as it misunderstands both the nature of the problem (a governance and accountability challenge, first and foremost) and the most likely class of solution (strengthening account-based accountability).

The pyrrhic victories of accounting-based accountability

Even where accounting-based accountability solutions show results

they do so by advancing progress on a dead-end road, one which terminates far below the desired summit of transformed systems. Take, for example, the documented successes of cameras in classrooms in improving teacher attendance.

Even if cameras are the most straightforward way to improve teacher attendance, they are in our view the wrong one. This is because a teacher who shows up because they are being observed may add value over an absent teacher, but is not likely to do all the other (unmonitorable) things needed to produce high levels of student learning and growth. And teachers who are likely to produce high levels of student learning and growth are likely to be repelled by a system that focuses on accounting-based accountability and top-down control and observation.

The road to a high-functioning education system not only addresses teacher attendance but also what happens when teachers do show up. Education systems steeped in accounting-based accountability will sometimes be better than the status quo, but won't be able to deliver the education all children deserve. A misplaced focus on accounting-based accountability moves us away from, not towards, our broader goals. Systems transformation in education and far beyond depends on our ability to differentiate account-ability from accounting ability. 🛈

A version of this article originally appeared in the Center for Global Development blog.

> **If people working in the education system invest time in collecting what can be measured and reported, they will do so by investing less time in what cannot be as easily accounted for—like teaching quality, individual instruction, relationship-building, responsiveness to parents or other teachers, etc.**

Dan Honig is an assistant professor of international development (IDEV) at Johns Hopkins School of Advanced International Studies (SAIS). His research focuses on the relationship between organizational structure, management practice, and performance in low- and middle-income country governments and in organizations that provide foreign aid.

The power of the word

One Indian non-profit is trying to make policymakers adopt captioning as a solution for literacy and accessibility. It might just happen, reports **Meera Rajagopalan**.

Twenty-five years ago, we accessed television through an antenna that had a mind of its own. When the signal was unclear, we had to go to the terrace and rotate the antenna until the picture appeared on the television set. It was a small tweak, but it made all the difference.

Sometimes, the most impactful technologies can be the ones that are like the turning of the antenna—tweaks to already existing infrastructure.

According to Brij Kothari, founder and director of Indian non-profit PlanetRead, there is an existing technology that has the potential to be that tweak that will help two billion people with reading literacy: Same Language Subtitling (SLS).

Kothari says that SLS, the display of captions, preferably synchronous with audio on the screen (like karaoke), has the potential to change the learning landscape of the country's literacy, along with helping those with hearing impairments.

Kothari's campaign has recently received a shot in the arm with the September 11 Indian government's announcement that accessibility standards for TV programmes will be implemented in a phased manner. The policy calls for 50% of all television programming to be captioned by the year 2025, excluding a few categories such as news, live sports, and reality shows. This move comes on the heels of the Rights of Persons with Disabilities Act.

That Kothari's 23-year-long campaign might finally see light at the end of the tunnel also underlines the importance of cross-cause collaboration.

Arman Ali, disability rights activist and executive director of National Centre for Promotion of Employment for Disabled People (NCPEDP), says, "It has been proven time and again that disability rights are not limited to Persons with Disabilities alone, their implementation allows smooth functioning for people in general." He cites ramps, which give better access to senior citizens, pregnant women, and even shoppers pushing a cart. However, his group does not push for open captioning.

Atul Kumar Tiwari, additional secretary, Ministry of Information and Broadcasting, Government of India, says that they wanted to go ahead and implement the standards, with a review every two years, so that a start is made.

"The idea is that even if it is not totally as it should be, we should make a beginning somewhere," Tiwari says. The ministry held several rounds of deliberations with various stakeholders, including private broadcasters, whose concerns were on cost and personnel implications.

"It was not easy for the ministry to bring a balance in interests between the two (broadcasters and disability rights). We were, however, guided by the fact that the same broadcasters, when they broadcast their programmes abroad, used subtitles. So it was a mental, rather than a real difficulty for some of them," Tiwari says.

It might, however, be a case of so-near-yet-so-far, as channels may decide to go in for closed captioning,

which can be turned on and off. Kothari is cautiously optimistic, and while lauding the move, also fears that closed captions will not help reap the literacy benefits that he advocates.

Sony Pictures Networks India has, in fact, introduced closed captioning for some of its programs and has plans to expand the closed captioning, not open captioning.

"Policy will continue to have a major monitoring role to ensure compliance," says Kothari, adding, "The effect on literacy will be clear within a year if at least 20-30 films a week in any given language, are telecast with open captions or SLS of the dialog and songs."

Ali adds his concerns. "It's imperative when media accessibility is talked about, it should cover people with various disabilities. Accessibility cannot be limited to just virtual/cinematic experience; it should ensure a barrier-free environment to information and theatres," he says.

"Will result in more reading than is happening in the country today."

Just adding SLS to programs, Kothari says, will create a literacy effect greater than all the efforts put in by civil society and the government. With the average Indian estimated to watch more than 3 hours and 45 minutes of television a day, the opportunity for impact seems huge.

"It (SLS) will provide three hours of reading per day per person, that's more than all the reading that is happening in the country today," he says.

PlanetRead has enough evidence to prove that SLS improves literacy; from its first study in 1996, an informal study where two televisions were placed in a railway station, one with subtitles and one without (people preferred the television with subtitles), to a 2015 study following two years of SLS on all movies telecast on a particular channel (30.5% of children improved reading skills in SLS group, compared to 2.1% in non-SLS group).

While PlanetRead conducted several studies, over the years, all of them demonstrating considerable impact, the idea was not taken up by policymakers on a sustained basis. Government broadcaster Doordarshan's film songs program, Rangoli, added SLS for seven years,

Image courtesy of BookBox

Image courtesy of Brij Kothari

Image courtesy of BookBox

enabling a longitudinal study for PlanetRead. Yet, convincing authorities seemed to be a tall order.

Subtitle campaigns go international

The studies, however, did not go in vain, as campaigns such as the United Kingdom's Turn on the Subtitles, have used it to advocate mandatory turning on of subtitles.

Started by friends Henry Warren and Oli Barrett, the Turn On The Subtitles campaign aims to get broadcasters, policymakers, and parents to turn on the subtitles. They say subtitling is "an idea whose time has come. Extensive research across multiple countries has shown us a way to improve children's literacy. It's incredibly simple; just turn on the subtitles."

"But the West, they are much ahead of us, because they already have captions. It's only a matter of what the default is," says Kothari.

In fact, it was in 1996, watching a Spanish film, that Kothari chanced upon the idea. Because he was learning Spanish, while a student at Cornell University, U.S., he wished the closed captions of the film were in Spanish, instead of in English, so

he could better learn the language. Extrapolating the idea, it became clear that mandatory captioning could be useful not just for language learning, but also for literacy, apart from its obvious application in inclusive media.

In fact, the goal of language learning is what prompted Kothari's other initiative: BookBox (see "Thinking outside the box").

While SLS helps with three goals— rights of PwDs, literacy, and language learning—the slow pace of its adoption calls into question the factors influencing policy, says Kothari.

"Often, for innovators, it is a waiting game. There is also a reluctance to accept science, and evidence-based policy-making is not happening in India," he says. He says the challenge was always to move things up, because innovations are usually not the domain of one ministry, and ministries tend to lob the ball over to their colleagues, rather than take ownership of an idea or innovation. For instance, subtitles will have to

also be taken up with digital content, something that falls under the purview of the Information and Technology department.

PlanetRead received the 2013 Library of Congress Literacy Award, and was funded by the World Bank's Global Innovation Fund. None of that has helped him crack the most crucial piece of the puzzle until now: government policy.

"SLS is a great opportunity for India," says Kothari. "They (the government) could actually advance this as an innovation for other countries, as India's contribution to solving the literacy problem around the world."

One tech does not fit all

In our Sattva column, **Sulagna Datta** lists how ed-tech in under-resourced communities differs from typical market-based products, and argues for thoughtful design and customization of those products.

Education Technology or ed-tech is a buzz word in the Indian impact space today. The supply side is inundated with products that can be categorized in a multitude of ways: Subjects, target age group, in school/out of school, etc. A survey by Tracxn Research, India's leading data aggregation and analytics platform, estimates that there are 4574 ed-tech products in India today, and around 17,000 products globally.

Schools and colleges across the country are using these products for a multitude of reasons: improving scores in specific subjects, preparing for competitive exams, and practising for job interviews.

Sattva has done extensive research and landscaping of the ed-tech space in India, with the primary purpose of mapping available solutions to government schools and colleges. Analysis has been done through various lenses including, but not limited to, in-school learning/at-home learning, subject specific products, target audience (K–6/8/12, adults, etc.). Working with and studying Education technology programs for the bottom of the pyramid, we've noticed that one size does not fit all, and market solutions often lack what it takes to succeed in the development space.

1/ The number of ed-tech products in the market that are actually built keeping the bottom of the pyramid in mind is shockingly low.

A Sattva research, out of 566 school products catering to Hindi and Math, only 19% had either already partnered with or shown interest in working with government schools. This means a staggering 81% of products were meant for the private school context.

When products are built keeping private schools in mind, their data and infrastructure requirements are higher, and more often than not, their content is not easily grasped by students in government schools. Implementation teams have the onerous task of spending time to customize these products for the BoP context.

2/ Schools may not even be able to fully utilize products meant for the BoP context.

Implementers need to be prepared that basic infrastructure varies drastically across government schools even in peri-urban areas in Bangalore and Delhi.

The biggest advantage of education technology over traditional pedagogical methods is the creation of personalized learning paths for students. For this, the ideal device to student ratio is 1:1, and almost all products are built keeping this ratio in mind. However, this fails in an Indian government school set-up. Even in schools that have labs, the device ratio is seldom 1:1, hampering engagement and consequently, learning outcomes. Most products are also designed with practice modules to be completed at home. However, most children in government schools don't own devices at home, and are not able to complete most of the intended self-learning. Additionally, another constraint in the government school context is access to the internet. Since the maintenance budget of government schools in India typically goes toward physical infrastructure like buildings, covering bills like the internet becomes cumbersome and is ignored, leading to further interruption of technology-based learning.

3/ BoP college youth, by and large, own smart phones, but they are extremely data conscious.

In our study, we found that while 90% of BoP college youth owned smart phones, they tend to delete any application/product that takes more than 20 MB of space.

While choosing products for the vocational context, practitioners have to be very conscious of the product they recommend. From a pilot to learn English for interviews using five mobile apps, two apps stood out in performance, because:

> **Most products are also designed with practice modules to be completed at home. However, most children in government schools don't own devices at home, and are not able to complete most of the intended self-learning.**

i/ They functioned fully offline. After the initial download, they didn't require any data to run.

ii/ They were between 15-20 MB in size.
iii/ They were available across all platforms: Android, Jio, etc.

The other three failed on at least one of the above parameters.

4/ There is a clear set of features that makes an app more successful than another.

From qualitative interviews with about 2000 college students across India, we found the following:

1. Leaderboards were a clear favourite with students. They were motivated to use apps when they could see their peers use it. They liked to see where they stood in their comparable cohort.
2. Apps that had short modules and progress bars/gamification were favoured. Students used it like a game to finish the stipulated target defined by the product for the day.
3. For a pan-India context, the app that was most successful had an 18-language interface. Students preferred to learn in their vernacular language.

5/ The optimum learning time on an ed-tech product is about 20 minutes a day.

A critical element to keep in mind while designing an ed-tech initiative is to set a daily target for content consumption. Apps that stipulated more than half an hour a day saw declining engagement and drop-outs.

> **Only 19% (of the products) had either already partnered with or shown interest in working with government schools. This means a staggering 81% of products were meant for the private school context.**

A 15-20 minute engagement/day was seen in about 80% students who completed the entire course.

While private enterprise products are pushed to the BoP context without considering its nuances, the learning experience is less than optimum, and that typically discourages the learner, further jeopardizing the quality of education. It's important to address this demographic thoughtfully, with an eye on specific needs and access. ⓘ

Sulagna Datta is an engagement manager with the Corporate Social Responsibility (CSR) team in Sattva Consulting. She manages corporate clients and leads large-scale implementation of projects with a focus on education technology and grantee management. Prior to Sattva, Sulagna was an investment research analyst at Goldman Sachs.

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Tech-Enabled Education

Section 12 (1) (C) of the Right to Education Act furthers India's promise of inclusive education. Technology is showing the way to an easier, more efficient way of realizing that promise in spite of niggling issues, writes **Meera Rajagopalan.**

It is an ambitious, unique, and bold Act that is meant to bridge the gap between rights and fulfilment of those rights.

India's Right to Education (RTE) Act, now 10 years old, seeks to promote equitable education opportunities and facilities for all, by specifying various parameters: school and classroom infrastructure, school management and teaching, and access to education.

A particular part of the Act—Section 12 (1) (C)—has been the most contentious. It earmarks 25% seats in all unaided private schools to children from disadvantaged backgrounds, with the attendant education expenses being borne by the Central and State governments in ratios that have varied over the years. Estimates peg the number of possible admissions under the section at around 20 lakh per year—yet, hardly 20% of these are being filled every year.

In an ideal scenario, schools declare the number of seats they have available. Parents independently apply for the "lottery" indicating their choice of schools (this varies by state). A lottery (central or block-wise) then chooses schools for the applicants, and schools admit the children in, no questions asked.

The Act was hailed as ground-breaking, for it brought into account private schools as having a social responsibility towards equitable education, and opened up competition between public and private schools.

However, several pain points emerged, as there were large-scale delays in reimbursements, leading several schools to look for alternate ways to escape the Act: declaring themselves as minority institutions, fighting the Act in court, and governments simply stalling on the first step of the process.

Ten years on, some states have made phenomenal progress, some are yet to start on the path, and still others find themselves in court.

Indus Action is a non-profit working at the intersection of policy and implementation, and its first campaign has focused on Section 12 (1) (C) of the RTE. Its report, The Bright Spots: Status of Social Inclusion Through RTE Section 12(1)(C) 2018[1] analyzes the issues involved in implementing the Act, while providing recommendations. Indus Action's advocacy and activities span nineteen states, and in 2019-20, the organization has enabled RTE admissions of nearly 1 lakh students, out of the total estimated seats of 22 lakh.

....

[1]https://www.indusaction.org/wp-content/uploads/2019/08/Indus-Action-_-Bright-Spots-Report-2018-1_compressed.pdf

Concerns surrounding RTE

1. Funding sources. State governments are wary of extra expenditure.
2. Competition to their own schools: States think the Act could lead to low enrolment in government-run schools.
3. Manpower and resources: Governments worry about the extra people/reskilling that the process might require.
4. Opposition from schools: School groups oppose the Act, for many reasons including uncertainty and/or delay of reimbursements.
5. General ennui: States do not want to get into a new process that seems overwhelming.

प्राइवेट स्कूल में मुफ्त
शिक्षा का अधिकार

केवल 3- 7 साल के बच्चों के लिए शुरूआती कक्षाओं के लिए
यदि आपके घर में 3-7 साल का बच्चा है तो आप
इस सरकारी योजना का लाभ उठा सकते हैं।
आठवीं कक्षा तक फीस इत्यादि
का खर्च माता पिता/अभिभावकों को नहीं उठाना पड़ेगा।
जन्म की तिथि : 1 अप्रैल 2012 – 31 मार्च 2016

क्या आप जानते है ?
RTE धारा 12 के तहत
प्राइवेट स्कूलों में
25% मुफ्त सीटे
आरक्षित है

कौन कौन लाभ उठा सकते हैं ?
केवल EWS, SC/ST, OBC, अनाथ, विकलांग,
विपरीतलिंग, HIV पीड़ित/प्रभावित बच्चों के लिए

केवल मिस कॉल करें :-   INDUS ACTION
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> **This (RTE) has only meant competition between the private and government schools. Now parents can have the choice.**
>
> **Pankaj Shrivastava**, MIS in-charge of RTE Act with the state of Madhya Pradesh, India

Since 2013, when the Supreme Court ruled in favour of Section (1) (C), the shift from a manual process to an online process has shot up in some states and barely taken off in others. What's common about the states that are doing well is that most of them have a robust technology solution that underpins the implementation of the Act.

What used to be an elaborate time-consuming process—filling in application forms in person, verification of income and other eligibility certificates, and a manual block-level lottery—could now be processed much easier. The road was not that easy, however.

Courtesy of Indus Action

Seat identification — Application submission — Lottery allotment — Student admitted to school, begins studying — Student continues studies or drops out
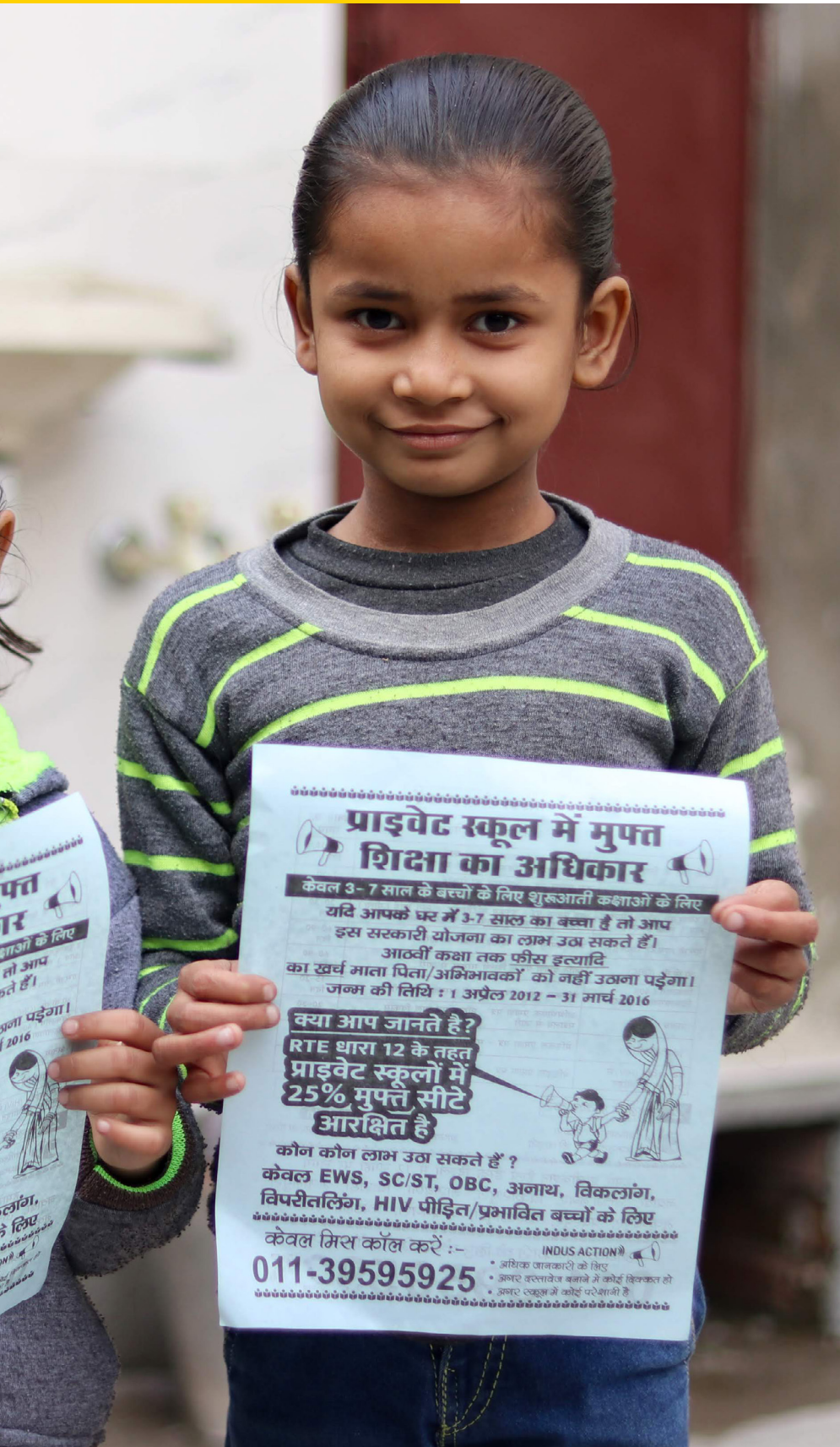
RTE 12 (1) (c) admission process funnel for child

Challenge 1: Getting governments on board

Not all government are on board, for various reasons (See "Concerns" box). Among the better-performing states are Madhya Pradesh, Delhi, Rajasthan, Gujarat, Maharashtra, and Chhattisgarh, and surprisingly, no state from South India, which traditionally outperforms other regions in education indices.

Some "unofficial concerns" pertain to corruption, which immediately found a way into the system. "I can recollect a block officer who said, only half in jest, that through the online process, officials have lost out on the money," says Indus Action's Uttarakhand lead Hitesh Kukreja.

Indus Action's founder and CEO, Tarun Cherukuri, says that Indus Action works with governments to address each concern separately. "We make the political calculations also very clear, and sometimes, they don't know what they are trading off against (when they resist implementation of RTE)," he says.

With bureaucrats, the concern is more on the loss of enrolment, but overall, the idea is that once the system matures, government schools now have to compete with private schools for enrolment.

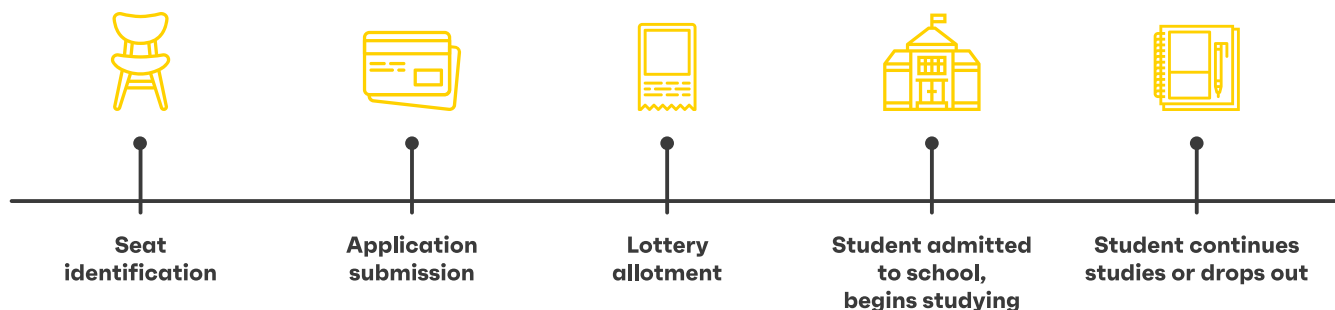In fact, successful states such as Madhya Pradesh have taken that into consideration. "This has only meant competition between the private and government schools," says Pankaj Shrivastava, MIS in-charge of RTE Act with the state of Madhya Pradesh, "Now parents can have the choice."

Challenge 2: Awareness of the Act and tech

Shrivastava is proud of the state's stats: Received 2,35,000 applications, found 2,03,000 eligible, and allotted 1,77,000 seats. He says the key was to educate the public about the Act, and that the state has been doing that since 2013.

He says the Act has opened doors that were traditionally shut for students from disadvantaged backgrounds. "They could

What the Act says:

"12. For the purposes of this Act, a school: (1) (c) Specified in sub-clauses (iii) and (iv) of clause (n) of section 2 shall admit in class I, to the extent of at least twenty-five per cent of the strength of that class, children belonging to weaker section and disadvantaged groups in the neighbourhood and provide free and compulsory elementary education till its completion: Provided further that where a school specified in clause (n) of section 2 imparts pre-school education, the provisions of clauses (a) to (c) shall apply for admission to such pre-school education."
(The Right of Children to Free and Compulsory Education Act, 2009)

not even enter the gates of the school. Now they can send their child to school in the best schools," he says.

He credits the state's success to the government's initiatives to sensitize communities about the Act.

While different rules for different states may make the process a bit more complex, certain basic principles make automation a no-brainer. Indus Action's study showed that when tech was used as a tool for this process, it reduced man hours by more than 10 times at the block level.

"A parent who applies to a maximum of 20 schools has to be matched to the school, according to their highest priority, and [with technology] this can be done

....

[2] Sarin, Ankur, Ambrish Dongre, and Shrikant Wad. 2017. State of the Nation: RTE Section 12(1)(c). Ahmedabad: IIM Ahmedabad.

Mapping Opportunities

One of the challenges faced by applicants is geography: which schools can they apply to?

Some states allow applications to schools only within an administrative area (could be a ward, or a block) and some, like Gujarat, allow for application by distance from the residence.

Gujarat has implemented a GIS-based mapping system to help applicants choose schools to apply to. The state sent surveyors to each school, who then pinned each school on a GIS-enabled device. A database of all schools with their exact GIS location was created.

Applicants are required to pin-point their residence on a map, when applying, and the system automatically displays the schools that they are eligible to apply to. Amid concerns that this has meant a less inclusive overall, other states who base admissions on distance and not administrative divisions are looking at the solution keenly.

within 30 minutes," says Cherukuri. Earlier, in Delhi, government school principals would oversee the two rounds of lotteries, held in 2500 schools, so that 5000 days would be lost.

The obvious reduction in the resources required is an equation that almost always impresses decision makers, says Cherukuri.

Challenge 3: Different rules for different states

While a uniform MIS with centralized data for all states may be the Holy Grail, it is easier planned than done, for the Act allows states to set their own parameters in several areas.
For example, the northern state of Haryana has a different provision: Section 134 (A), which provides scholarship for children from economically weaker sections of society.

Prachi Agarwal, Punjab state lead, Indus Action, says that the Haryana government's plan is unique, and that required a lot of tweaking to the other MIS systems in use. Haryana attracted 1.3 lakh applications, with 79,000 students qualifying, with around 25,000 children finally admitted.

Kukreja has implemented an MIS from start to finish in Uttarakhand, albeit not in the entire state and says that it has been a learning experience. Uttarakhand also reserves 50% of the seats under this section for girls, and so, that had to be taken into account.

Uttarakhand's hilly terrain meant that internet penetration was low, and so, the help of Common Service Centres, which are access points for the delivery of essential public utilities, was sought.

With low levels of reliable internet, there will likely be a combination of offline and online applications, says Kukreja.

Uttarakhand has filled 1,800 of the 6,000 available RTE seats. And Kukreja is still hopeful of a second lottery, which might fill more than 40% of the available seats.

A 2017 report[2] calls for better lottery logic, and more inclusive application processes. Looking beyond the numbers, the report carefully examines the processes and efficiency of different states, and suggests that the priority number system adopted by Rajasthan can "be potentially developed into an ideal algorithm, subject to contextual modifications."

Opportunity: More than just MIS

Technology does not just help with RTE enrolment. It has other uses as well, all of which have the potential for large-scale impact.

Tushar Badhwar, senior associate, data analytics and advocacy, Indus Action, manages a bunch of products, including a Missed Call Helpline system and an app. The missed call helpline helps parents reach out, in case of problems or questions regarding the Act. The tech team is also developing bots to take care of the initial touch point.

It's not just Indus Action working on this. National Informatics Centres in individual states take up the implementation and some states are faster than others.

The top two challenges, according to Akshay Vikas, senior associate, technology, Indus Action, are mapping, which helps parents decide which schools they can apply to, and user experience, an ongoing process.

Simple things, like ensuring that the parent knows that the order in which they select the school is their order of preference, also need to be factored in.

For mapping challenges, the state of Gujarat offers an interesting solution, but it is not without its challenges (see "Mapping Opportunities" box).

Added to this is the uncertainty surrounding the future of the Act itself. With many states stalling the process of notifying the government, and others watching legal outcomes, it might be a year or so before the future of the Act becomes clear.

Indus Action has, meanwhile embarked on an ambitious project of mapping the mothers of a maternity health benefit plan called "Matru Vandana Yojana", which provides new mothers with benefits. The idea is to not just track the mothers, but the babies, eventually integrating the children's nutrition, health, and education information.

If realized, that would be one of the largest programs to track children through their first thousand days of life, and beyond.

Then, RTE or not, the promise of technology will truly be realized. 🔴

The *opportunity of a lifetime*

Innovative financing models for affordable private schools could help realize universal education, writes Scott Sheridan.

We know that education changes everything.

For the individual, education enhances their ability to achieve higher earnings, live healthier lives, make more informed decisions, and exercise their rights. For societies, education can improve social cohesion, foster innovation, promote economic growth and reduce poverty[1].

Despite global gains in education and a global drive towards UN-adopted Sustainable Development Goal 4 –'To ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'– access to quality education remains far from a universal reality.

To put things into perspective,
- 263 million (1 in 5) school-age children globally are not in school.
- 617 million children are not learning in school.
- We would need to build 800 new schools per day for the next five years to create space for all out-of-school children.
- Over half of school-age population growth from now until 2050 will occur in Africa[2].
- Within these findings, however, there is opportunity.

There is a rapidly expanding segment

of the global education sector that is successfully engaging more children in low- and middle-income countries: "Affordable Private Schools" (APSs).

Opportunity EduFinance studied the potential of these APSs and released a comprehensive report that highlights the power and opportunity of Affordable Private Schools. Based on the research reflected in the report, the potential is enormous.

Currently, there are about 300 million students enrolled in APSs—and this number is expected to grow 16% in the next five years. Perhaps even more critically, the report estimates the potential market opportunity to lend to these schools at $24 billion.

This report highlights the relevance of the APS sector in addressing the global education crisis. It demonstrates that there is a part to be played by all if we are not only planning to reach children currently out of school, but also planning to build infrastructure and capacity necessary to get more kids in better schools.

These low-cost private institutions often require the same investment as a local public school once informal fees are considered. And increasingly, governments are recognizing the power of private partners, especially when faced with the growing unmet demand for education and capacity-constrained public management.

Put simply, APSs fill the gaps where the nearest public schools are too far away,

or where demand for public school seats exceeds supply.

Take Erika's story, for example. Unable to access public education in her local community of Adansi, the Ashanti region of Southern Ghana, Erika was without other options. The public school was both overcrowded and far away, and there were high drop-out rates in the region.

Then local entrepreneur and teacher, Beatrice Sarkodie, built a private school near Erika's home. All of a sudden, Erika was able to go to school.

Beatrice used school improvement loans from an Opportunity International

> **Increasingly, governments are recognizing the power of private partners, especially when faced with the growing unmet demand for education and capacity-constrained public management.**

[1] UIS / GEM (July 2016) Leaving no one behind: How far on the way to universal primary and secondary education? Policy Paper 27 / Factsheet 37
[2] United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019: Ten Key Findings.

Private education growing much faster than public education in low and middle-income markets

Children in Public Education (Low, Middle-income markets)

Children in Private Education (Low, Middle-income markets)

millions

5 year growth 7.5% ↑

5 year growth 16.0% ↑

1,200
1,000
800
600
400
200
0

2005 2007 2009 2011 2013 2015 2017 2019E 2021E 2023E

2005 2007 2009 2011 2013 2015 2017 2019E 2021E 2023E

- ⬤ South Asia
- ⬤ East Asia & Pacific
- ⬤ Europe & Central Asia
- ⬤ Middle East & North Africa
- ⬤ Sub Saharan Africa
- ⬤ Latin America & Caribbean
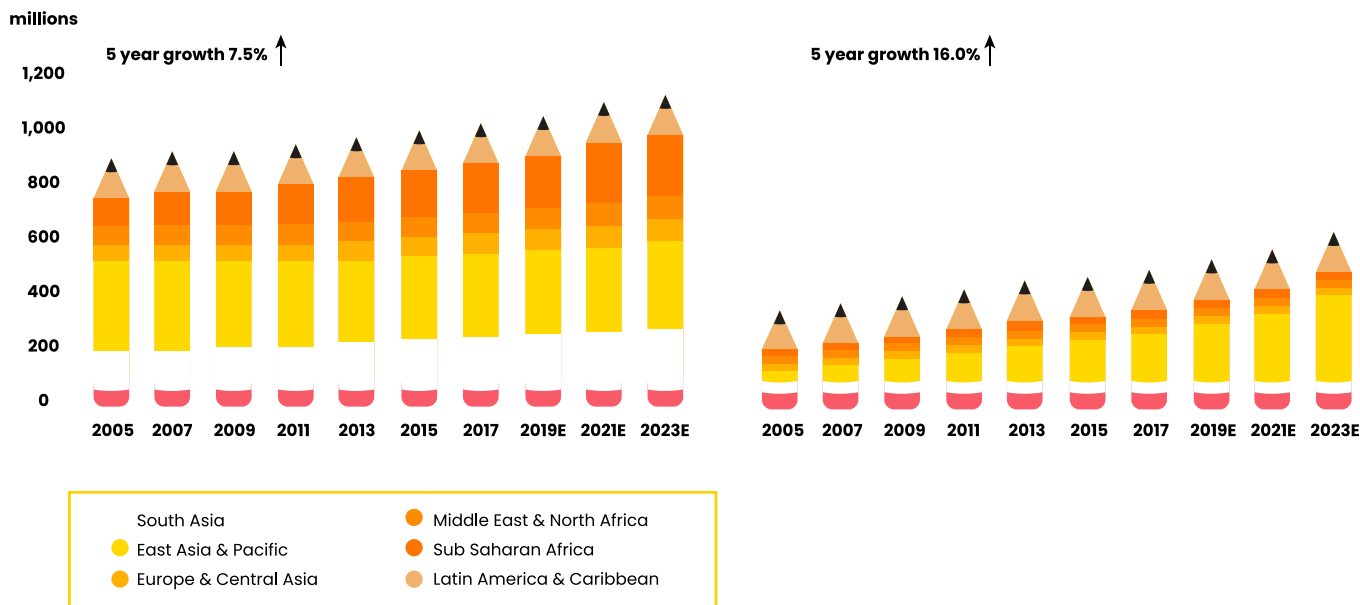
partner financial institution to expand her building, and families like Erika's were able to use school fee loans to cover tuition, even when their cash flows were unsteady.

These simple financial tools make it possible for school proprietors to continually improve the quality of the education they offer, and make education accessible for families who were previously unable to afford regular tuition payments.

Stories like Erika's and Beatrice's highlight the important role private schools can play in closing the education gap across low- and middle-income countries. But because low-cost private schools are heavily dependent on tuition from low-middle income families, commercial banks and other lending institutions often consider them too risky and are unwilling to extend lines of credit.

The opportunity is clear. The case has been made for financial institutions to

do what they do best and recognize the opportunity to invest in this expanding market which offers a solution to help close the education gap. EduFinance partners, for example, funds schools across 20 countries, leading the growth path. It is time financial institutions took the lead in creating innovative tools to help the goal of universal education.

[3] UIS, EduFinance, Affordable Private Schools Report 2018

Scott Sheridan is responsible for operations and business intelligence for Opportunity International's Education Finance global footprint. Prior to joining the team, Scott spent eight years in the financial services industry.

Beyond the Blackboard

The Asian Development Bank's ICT Education initiatives explore the immense impact of technology to uplift the lives of people in the world's poorest areas. These pictures, which feature the use of digital tools, like tablets in classrooms, are clear indications that the education sector is headed in a digital direction.

Improving Internet Connectivity for the South Pacific

KALAHI–CIDSS National Community-Driven Developmen

Improving Internet Connectivity for Microne

Madrasah Education Development Project in Indonesia

t Project in the Philippines

esia Project in Nauru

Improving Internet Connectivity for the South Pacific

No child's play, this

A unique project that creates simple dolls from disaster-affected clothes helps with creating livelihood opportunities and much more, finds **Saritha Rao Rayachoti.**

This September, as the Indian state of Kerala celebrated its most important festival, Onam, another unique celebration occurred around the state: the first birthday of Chekutty, a simple doll made out of soiled fabric and yarn.

For just over a year ago, Kerala experienced devastating floods that took 400 lives and displaced 1.4 million people. The doll, Chekutty, rose from its ruins. Chekutty, priced at INR 25 (USD 0.35), also doubles as a luggage tag, lanyard, decoration, and a workshop tool for children affected by trauma.

In Chendamangalam, a town in Kerala, the floods submerged the handloom weaving clusters for days. Once the water receded, it was clear that only the wooden frames of the looms had withstood the flood, with everything else having rusted, washed away, soiled by slush and slime, or torn asunder.

When Gopinath Parayil, who runs a responsible travel company called Blue Yonder, went on a relief visit to the sole uninsured weaving cluster, Karimpadam, he was told that the only option was to find a way to sell the undamaged stock. The rest of the stock, worth around INR 21 lakh (around USD 30,000), would be burned.

Designers and entrepreneurs in the state swung into action, creating demand for the undamaged stock through social media. Gopinath involved Lakshmi Menon, a fashion designer who is passionate about upcycling, to find a solution for the sarees that were soiled in the flood.

"I have seen that there is nothing called waste." says Menon, "It is only the way you look at certain things. From nature you can always see that something that we consider as waste is the best energy fuel for something else to grow."

While the saree itself would have brought in INR 1500 (USD 21) if sold, the 360 Chekutty dolls made from one saree fetch six times that amount. Lakshmi says that in four months, the weavers received INR 33 lakh (USD 46,600), from the sale of the Chekuttys.

Courtesy of Lakshmi Menon

> **In disaster management, these kinds of initiatives try to create the community that we have lost. 99**
>
> **Parimal Pandit**, clinical psychologist and counsellor

It's not the first time that a doll has been used as a symbol of hope and resurgence in the days following a disaster. Tsunamika was an initiative by Upasana Design Studio (in the international township of Auroville in the South Indian state of Tamil Nadu) where hundreds of fisherwomen, traumatized by the tsunami of December 2004 were trained to make cloth dolls from leftover fabric. These dolls were bought and made available as a gift economy initiative.

These initiatives serve as more than livelihood programs; they are efforts to heal communities ravaged by disaster, says Parimal Pandit, a clinical psychologist, and counsellor. "The use of soiled cloth (for making Chekutty), it can also be symbolically looked upon as creating out of damaged things. You become more constructive about it."

The doll was specifically designed so that anyone could make a Chekutty. Menon adds, "I didn't want any needle or additional equipment or gadgets. Not even training should be needed for this, because it had to be done in bulk. The only raw material would

Courtesy of Lakshmi Menon

> **From nature you can always see that something that we consider as waste is the best energy fuel for something else to grow.**

Lakshmi Menon, designer

be from the yarn and the fabric that were spoiled in the weavers' society." A crowdsourced team of volunteers began making Chekutty dolls (and conducting workshops to make them), that were then sold online through a website, with the proceeds going directly to the weavers' bank accounts.

"When volunteers are from the flood affected areas, then, everybody has lost something. It becomes like a support group. Then, there is also somewhere that whole process of a group sitting together and doing something, even as they sing or talk, which becomes a cathartic healing activity," Pandit says.

These initiatives are not just for the affected communities. "For those who receive it, it is about gratitude, for everything that you have and you take for granted. In disaster management, these kinds of initiatives try to create the community that we have lost," Pandit adds.

While Chekutty, the upcycled cloth doll was born from a need to provide a quick creative way to monetise damaged handloom fabric stock while generating livelihoods with dignity for weavers affected by the floods, Chekutty is also symbolic of the scarred and stained, but indomitable spirit of a community affected by disaster. ℹ️

Courtesy of Lakshmi Menon

Photos by Lakshmi Menon

5

Edu-Tech Solutions that Set the Bar High

Welcome to the digital age, where technology powers every human operation. From robotics to artificial intelligence, these innovations prove that technology is indeed a force to be reckoned with. Here are five edu-tech solutions that caught our eye for their innovation and impact.

1. Serving those who serve time

As more people are incarcerated, meaningful rehabilitation of prison inmates is becoming tougher. Skilling inmates, and enabling communication with loved ones are two of the most urgent reforms needed in prison systems. Edovo seeks to bridge the gap, both in skills and communication, via its secure tablet technology, bringing free access to educational programming and low-cost communication services.

2. Simulation in training

In New Zealand, the construction sector is currently short of 50,000 people and skills shortage is one of the reasons for the gap. Software developers and social scientists from Joy Business Academy found an interesting solution: virtual reality (VR). The technology requires trainees use Oculus Quest VR headsets to allow them to work with instructors wherever they are. Not only does it encourage interactivity, but VR also reduces the high costs associated with training centres.

3. The language of love

Seeking employment can be a challenge for most refugees who have been disconnected from the traditional economies of their homes. NaTakallam ("We Speak" in Arabic) steps in to provide displaced Syrians a way to earn a living by pairing them with Arabic learners around the world for language training over Skype. Aside from providing a source of income to refugees, NaTakallam also promotes transatlantic friendships by engaging them with learners through intercultural exchange.

4. Salon study

Conducting training programs is something Lakmé, a global cosmetics brand offering beauty products and salon services struggles with. Their salons are scattered across India, making training quite expensive and inaccessible to some. To ensure maximum and cost-effective training coverage, Lakmé has partnered with cloud-based education platform, WizIQ to deliver online courses on salon etiquette and best practices.

5. What page are you on?

The 21st century has paved way for education to expand from traditional classrooms to digital spaces in mobile devices and personal computers. OpenStax goes further by creating an open space where authors and learners can collaborate seamlessly through courses and online reports. A library of learning objects in the style of textbooks called "pages" are available for free and can be downloaded to a variety of devices.

ADB forum discusses skilling for the future

by iMPACT Staff

Participants at the panel, *"How to prepare the workforce in a rapidly changing world"*

Stakeholders from across the education spectrum came together to discuss what the job market of the future will look like, and examined ways to skill people to match those requirements.

The 8th ADB International Skills Forum focused on the "Future of Skills and Jobs in the Age of Digital Disruptions" and was held from September 27-29 in Manila.

The tone for the forum was set by the keynote speaker, development economist Lant Pritchett, who gave the gathering a reality check highlighting studies that showed below-par learning at the primary level in many countries. He said that pressures of completing the syllabus made is nearly impossible for a child to catch up once he/she falls behind.

"India cannot pretend to have the same problem as Singapore," he said, "because it doesn't."

It is with this sobering thought that the forum kicked off, with 19 sessions on Technical and Vocational Education and Training (TVET), K-12, digital learning, inclusive learning, and innovations in learning spread over three days.

"Some jobs will disappear, but most will simply change. So the question is, how do we promote a continuous learning environment?" said Srinivas Reddy, chief of skills and employability at the International Labour Organization, speaking in a session titled, "How to Prepare the Workforce in a Rapidly Changing World". He advocated that states promoting lifelong learning, a la Singapore.

A session on digital learning threw up interesting insights: how online learning platforms study the frequency of search strings entered on their portal to decide on the courses to add to their roster, and how portals such as LinkedIn are able to forecast the jobs market, based on the mountains of data they sit on.

Industry 4.0 was on nearly every panel. It was discussed on all days, and examined from various angles. With the state of education being where it is now, the path to Industry 4.0 seemed circuitous and foggy. However, several ideas were presented for governments and institutions to move swiftly to ensure that their populations are skilled enough to be gainfully employed in the future.

An Innovation Marketplace, where 15 innovative practices in learning were highlighted, gave participants a taste of the future of education. 🛈

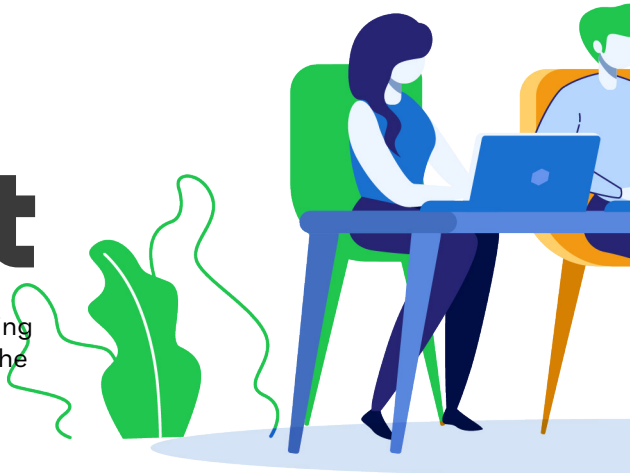Participants at the panel, *"Innovative approaches to digital learning"*

IDEAS & INNOVATIONS

Rules of Engagement

The non-performing Board is not conducive to the optimal functioning of a non-profit, and **Aarti Madhusudan** suggests ways to convert the Board to a dynamic and performing one.

What to do with the Board member who does nothing beyond the bare minimum … and won't resign on her own?

Every Board in the non-profit sector has one or more such Board members, or at the very least, has had to deal with this at some point. A fully engaged Board is a rarity.

Yet, CEOs and founders seem to tolerate the non-performing Board member. There are multiple reasons for this:

1. The CEO would rather have it that way. Often, CEOs struggle to draw the line between an engaged Board and an interfering one. Sometimes, CEOs and founders prefer a disengaged Board over one they feel is stepping on toes.
2. The expectation from the Board has never been articulated and agreed upon, and so the members carry on by doing the bare minimum.

3. Where founders hire professional CEOs, they bequeath the organisation, the Board, and the dynamic that the Board is comfortable with. If "not doing anything" has been the culture of the Board, the new CEO might not want to risk upsetting the apple cart.
4. We are too polite. This is cultural. We do not want to seem disrespectful to people higher in a perceived hierarchy and so, do not bring up non-performance or non-participation. This is especially evident when Board members are older people, male, and those with a visibly higher social status.

Why should we even address the issue? And how?

The approaches will vary based on several factors:

The entire board is not contributing

This is likely a Board culture issue. A sudden change will probably be impossible. The first step is to figure out why this has now become an issue. The reasons could vary: donor insistence on change, the organisation needing more dynamism to pace growth, or a founder/CEO becoming more aware of their limitations. Having the Board reflect on this and own the problem is critical to initiating change. In this process, some Board members may decide to step down while some may be re-engaged with new-found enthusiasm.

What might work: Pacing the change on the Board, letting go off those who wish to step down in a gracious manner (inviting them to other bodies such as an Advisory Board) and inviting others to share how they would like to continue staying engaged is a good way to kick off change.

Some members are not contributing

One of the biggest mistakes that people make is not doing anything about some members not contributing. This creates a lopsided dynamic on the Board with those giving time and input feeling over-burdened because some people can "get away" by not doing anything.

What might work: The CEO can create an individual engagement plan which can be discussed with all Board members. It's a great opportunity to spell out expectations—time and input—and helps finalize the role of each Board member, and all members to know how others are contributing. Doing this also communicates to the other Board members that their engagement is valued.

A Board plan and an individual Board member engagement plan will ensure that all members contribute optimally.

The expectations of the Board, based on the life stage of the organisation

Organisations evolve. Needs change. Usually, the executive adapts the organisation's_ competencies to meet the demands of every growth stage to a large extent but the Board remains stagnant. Being cognizant of the change and its associated demands from a Board is a good way to renew the role of the Board more strategically.

What might work: A Board plan – basically a plan that the Board makes for itself every two years to reflect the changes in the organisation's needs, will help. It will also ensure that members contribute if they can and the ones that can't are weeded out automatically. Also, factoring in a strong rotation policy based on performance will facilitate optimal contribution from every Board member.

The personality of the founder/CEO

Some founders are consultative and like to ask for help; other expect that it will be offered. Some are transactional in their approach, while some others err on the side of too much one-way communication. While it's easy to say that a balance would work great, in reality, this is dependent on the personality of the founder, which is very difficult to change.

What might help: Taking the help of a trusted member on the Board or the Chair to work with the founder, helping balance the relationship with the Board, creates a more conducive environment for contributions from the Board members.

Often it's a combination of all of the factors above that determines how well a Board contributes. Being aware of which of the factors is dominant at a given point in time and reflecting upon the same will ensure that the contributions of the Board are optimal, and leveraged as desired. 🛈

> **One of the biggest mistakes that people make is not doing anything about some members not contributing. This creates a lopsided dynamic on the Board.** 🟢🟢

Aarti Madhusudan runs Governance Counts, an initiative which helps non-profits build more effective Boards. She is associated with iVolunteer, India's largest volunteering organisation and Daan Utsav, India's festival of giving.

Filling in a blank canvas

Creative Labs' Alexa Tamondong takes us through the process of creating a whiteboard video.

Whiteboard videos have gained traction of late, especially as a tool to explain complex concepts. For non-profits and civil society, it is a way to get across messages to large audiences in an easy-to-understand format.

What is a whiteboard video and what is it best for?

Whiteboard videos are patterned after traditional chalk-and-board lectures, and can be used for educational, marketing, and storytelling purposes. They're animated, and usually accompanied by voiceover narration.

What does it take to develop a whiteboard video? Our team at ASSIST Creative Lab (ACL) worked on a whiteboard video project with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Philippines, to explain the conflict-induced internal displacement (CID) situation in the Caraga region in Mindanao. To be distributed through online channels, its target audience includes bank

LOSE THEIR BELONGINGS

ABANDO LIVELIHOO

FAR

institutions, GIZ partners, and local government actors.

The project helped us understand how whiteboard videos work and the production process in detail.

1. Setting objectives and parameters

Before any endeavour, it's critical to understand what exactly you want to do. Specifying your objectives allows you to take a step back and assess whether a whiteboard video will be effective in helping you achieve your goals.

Now would also be a good time to set parameters for the subject

matter of the video. If you're planning a 2-minute video, you must acknowledge that there's only so much the video can do, so your content objectives should be focused enough that they can be satisfied within the time allotted.

ACL Experience: CID is a complex, socio-politically charged topic that involves various stakeholders. GIZ, as an organization that founds itself on the principle of multipartiality and takes on a conflict-sensitive "do-no-harm" approach in its work, maintains neutral language and avoids visuals that blatantly depict violence and portray human-caused consequences.

NORMAL LIVES DISRUPT...

This constant exchange on the script is important because the script is the most crucial part of an explainer video, which is what a whiteboard video essentially is.

and built on the feedback and input supplied by the client.

3. Conceptualization

Before you can translate the information into a workable script, you need a concept that underpins your key messages, visuals, and call to action. The conceptualization stage kicks off the creative process, and ensures all elements are held together by a cohesive, overarching Big Idea.

ACL Experience: A Creative Brief captures all agreements made, in terms of the output objectives, key concepts and messaging, and look and feel. It serves as a guiding document in the creative process, and is signed off on by all project stakeholders to ensure everyone is aligned on the requirements for the output.

4. Script development

In script development, while it's easy to get carried away and over-explain, remember the parameters and objectives you've set, and ask yourself these basic questions: who are you talking to, and what are you trying to say? Your video should be able to reach its target audience and clearly convey its key messages.

Conveying the concept clearly while maintaining neutral language was a challenge we overcame by close collaboration with the client.

2. Information scoping and download

Ensure you've compiled and organized all reference and educational materials in a single location. Are they all relevant to the content? Now that you've set objectives, you'll be in a good position to sort through the reference materials, and

determine which information can be used for content development. It's also good practice to schedule an information download session with a subject matter expert or a panel of experts.

ACL Experience: Information on the CID situation in Caraga was scarce, especially since the overarching program the whiteboard video project fell under had just commenced. We made use of all resources available to us at the time, including documents provided by the client, did further research,

ACL Experience: Script development is definitely one of the most challenging parts in video development. We went back-and-forth several times with the client on factual accuracy, narrative logic, and even on the consistency of some terminologies, but this constant exchange on the script is important because the script is the most crucial part of an explainer video, which is what a whiteboard video essentially is.

5. Storyboard development and voiceover recording

A storyboard is a frame-by-frame visual blueprint of your video. Here, you can "cut up" the script and plot it out on a storyboard, and create rough sketches of the illustrations for each frame. The voiceover recording can be done in parallel. Make sure that

the tone, emotional expression, pace and pitch, and overall delivery of the voiceover are in line with the language and look and feel of the visuals of the final output.

ACL Experience: Everything in this stage – the storyboard and the voiceover – is dictated by the script, which is why there must be no takebacks. Especially since voiceover recording incurs costs.

6. Selecting the app + Animation

Today, there are many whiteboard animation software programs that can be purchased and downloaded online: Vyond, Sparkol VideoScribe, Animaker, Wideo, and Moovly, for instance.

Make sure the software program you choose allows

you to apply the technical requirements brought about by your concept, script, and storyboard.

Animation is the final stage of the process; here, all final elements will be pulled together for the full video development. The final and "cleaned up" illustrations, the voiceover, and background music are integrated in the video, and special animation effects can then be applied.

ACL Experience: Whiteboard apps work a bit like other video development programs, so you can use other programs to perform advanced manipulation of the audio and export it to the whiteboard app, which was what we did for the project.

The development process might involve a lot of steps, but they are all needed in order to produce an effective and good-quality output. Whiteboard videos can have a strong impact when planned and executed properly, and are actually a great way to convey information while still exercising creativity.

Alexa Tamondong is a project manager with Manila-based ASSIST Creative Labs. She comes with an international studies background, and has an affinity for development communication work and iced coffee.

Food for deeper thought

An organization found an overlooked segment of underweight children and developed a complementary food and nutrition program to combat malnutrition and stunting. **Len Cristobal** finds out what makes them successful.

Like a pencil in a box of crayons, a nine-year-old boy stood out in a kindergarten classroom.

He grabbed the attention of Millie Kilayko, founder of Negrense Volunteers for Change (NVC) Foundation, Inc., an NGO based in Bacolod City, Philippines, during a project her organization was working on in partnership with the Department of Education. NVC was then focused on building kinder classrooms for public schools.

"Why would a nine-year-old be in kindergarten?" she asked his teacher.

The teacher explained it was only now that his parents could provide food that would give him enough energy to walk the several kilometres to his school.

"It was then I realized that good-looking classrooms would be of no value if we did not attend to the nutritional needs of children," Kilayko told iMPACT.

> 🙂 **Be Flexible! NVC changed its program drastically when it encountered a bigger problem to be solved.**

That was eight years ago. Now, NVC's Mingo Meals Nutrition Program reaches more than 22,000 children across 39 provinces in the country. NVC has also launched a campaign to reach a milestone—delivery of ten million Mingo Meals by the end of the year.

"The path less taken"

The Mingo Meals Nutrition Program, a 6-month daily feeding program, provides nutritious meals to children aged 6-72 months, typically infants and toddlers who are yet to start school.

And it solves a prevalent problem: The Philippines ranks ninth among countries with the highest rate of stunting in children under five, as of 2015, according to Save the Children.

According to Miraflor D. Pilpil, RND, a nutritionist and vice president for South Luzon of the Nutritionist-Dietitian's Association of the Philippines, the latest Updating Survey of Nutritional Status of Children and Other Population Groups released by FNRI (Food and Nutrition Research Institute) shows that "stunting prevalence remains high and doubles at one year of age, coinciding the transition to complementary feeding period." The number of infants 6-11 months receiving the minimum acceptable diet is also low.

The choice of infant nutrition was not automatic. When Kilayko and her team visited the Department of Science and Technology (DOST) to talk about probable nutrition solutions for children, the regional director told Kilayko and her team: If you are serious about nutrition, try to focus on children below the age of three, because that is the most important stage of a child's development, where his mental and cognitive skills are developed and where stunting is arrested.

> ⤢ **Take risks. NVC's program was for children who were not yet in school, where there were no other programs.**

And there were hardly any programs for children in that age group—most programs were for children in school.

"Though it was important to feed infants and toddlers well, little focus was on them. We decided to take the path less taken," said Kilayko.

Why Mingo Meals?

Mingo is short for the combination of the three nutritious ingredients: moringa, rice, and mongo. Packed in a sachet, this complementary meal is jam-packed with nutrients essential for a child's development: vitamin A, vitamin C, B1, B6, potassium, iron, protein, fats, carbohydrates, calcium, and zinc.

DOST initially advised NVC to use rice, mongo, and sesame seeds. However, there was little production of sesame seeds in the country. Volunteers in the food industry replaced sesame seeds with moringa and found the nutritional content of the latter sufficient for their target. Kilayko said that Mingo Meals are made of vegetables that parents can easily plant or acquire.

Not a one-time feeding program

Rather than sticking to an institutional-based feeding program, NVC delivered a monthly ration of Mingo Meals to the homes of each beneficiary. The ration is suitable for

Images courtesy of Negrense Volunteers for Change (NVC) Foundation, Inc.

> Though it was important to feed infants and toddlers well, little focus was on them. We decided to take the path less taken.

Millie Kilayko, founder, Negrense Volunteers for Change (NVC)

six months of daily feeding, with a child consuming one sachet per day as a complementary meal.

The impact of the program is meticulously tracked. Asian Development Bank gave NVC's Mingo Meals program a "highly satisfactory" rating (its highest rating) three years after it was implemented. The ADB report states that "Among malnourished children who were given Mingo for 200 days, more than 16% significantly improved. In schools not given Mingo, the success rate was only half."

Evaluate! NVC tracked the children's health through scheduled and unscheduled visits.

Pilpil said that optimal nutrition during the first 1000 days of life brings about optimal growth, higher IQ, better schooling, better health, lower disease risk, increased earnings, and reduced child deaths.

Joel Arnejo, principal of Glab Elementary School, a remote school in Zamboanga del Sur, said that children have become more attentive during classes after eating Mingo Meals.

"It was a challenging process to finally get to where we are in production today, but we now operate an FDA-accredited manufacturing plant, sourcing our raw materials from local farmers with whom we execute a purchase agreement at the start of every year," said Kilayko.

Kilayko said that matching the gap between the need and the resources to address the need is one of their main challenges. While NVC relies on donors, it supplements its income through other creative activities such as art and "Mingo Cards". The Mingo meals are also sold for a small profit, and the organization has a few restaurant partners who share a portion of their sales to the program.

Innovate sources of income: NVC does not depend completely on donors. It works on several streams of income.

As with any non-profit organization, it's an uphill struggle. In the case of NVC, it may also be literal.

NVC is known for not taking the easy road, instead prioritizing hard-to-reach areas. For example, when they learned about children in the Philippine mountains of Bukidnon who survived on only one piece of cassava a day, NVC looked for them for months and enrolled more than a thousand children in those mountains in their nutrition program.

Never lose sight of your purpose: NVC travels far and wide to reach the program to the children who need it most.

Arnejo said he is grateful for NVC because they continue to provide Mingo Meals even if their school is hard to reach. NVC develops strong relationships with local partners from DepEd, Philippine Army, and local civil society organizations. "Parents of the children we feed also help provide logistical support, even meeting us halfway on horseback so they can bring up Mingo Meals for their children," said Kilayko.

Increasing energy levels

Amidst slowdown, a marketplace for solar energy may give the industry a fillip.

By iMPACT Staff

Everyone is talking solar; yet, the adoption of solar energy seems to be plateauing.

According to data by the International Energy Association, the growth of renewable energy remained the same in 2017 and 2018, raising concerns on the possibility of meeting long-term goals. Solar capacity addition remained the same—at 97GW—in 2017 and 2018. While India has set itself an ambitious target of 100GW of solar power by 2022, its current capacity stands at a mere 30GW.

There are worrying signs. Conferences on renewable energy peddle the same ideas and thoughts, and the industry is plagued by cost and quality concerns. Investors find it difficult to predict income with the variable nature of solar power and input costs, coupled with general uncertainty and lack of transparency in the sector.

Mumbai-based Vikesh Sharma hopes to address some of the problems through his company, PowerMitra,

by bringing together the four major stakeholders in a solar project: the investor, service provider, real estate owner, and the customer.

Far from merely being a platform for the stakeholders to talk to each other, PowerMitra also has an onboarding process, which includes vetting of the EPCs (engineering, procurement, and construction companies), and listing their major projects to date, so that consumers and investors can take informed decisions.

"It will level the playing field, as all the information will be available, so that investors, consumers, and EPCs can take their own decisions," says Sharma. He sees the platform as assisting Small and Medium Enterprises, so that they can cut their dependence on more expensive fossil fuel.

Currently operational in four states of India—Maharashtra, Himachal Pradesh, Haryana and Punjab—the company's plans are as ambitious

as the country's: they aim to facilitate 100,000 installations by 2022.

This "marketplace model" has proven useful in solving the trust and lack of transparency in many sectors, including the social sector. Organizations such as GuideStar provide exactly the same service: giving donors (investors) more information about a service provider (an NGO), with stringent onboarding processes that are updated regularly.

There might be applications of this approach in other sectors, including low-cost housing, and other renewable energy projects, according to Sharma.

PowerMitra is one of the projects of The Hungry Lab, a consultancy for entrepreneurs, social enterprises, and businesses. Bian Li, founder of The Hungry Lab, says that PowerMitra's idea blew open the market when they decided to bring in all the stakeholders together. ⓘ

Uberisation of Solar Tech

PowerMitra hopes to generate income through several streams, including one that has the potential to create employment for a large number of rural youth.

When small solar projects (think rooftop) are studied for feasibility, data such as the space available, the angle of the sun, etc., need to be gathered. This task does not require too much technical knowledge, and can be performed with minimal training and a smartphone.

PowerMitra hopes to Uberise this part of the process, so youth can register to go on "rooftop visits" and get paid for gathering the required data in remote regions of the country.
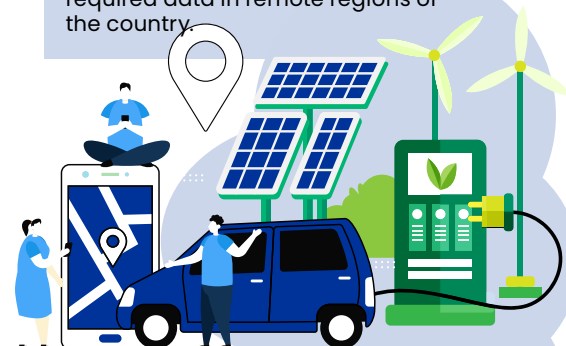
Designer Data

Taking off on a CIAT study, iMPACT makes a case for the promotion of design thinking in non-profit organizations.

We are being bombarded with more data and information than ever before. This information overload—estimated by a 2009 University of California-San Diego study at 34GB of information per day for the average American—is likely to be several times that today.

34GB

Here's an interesting fact, though: most Americans do not consider themselves overloaded with information, and are perfectly comfortable dealing with so much of it. A 2016 study by the Pew Research Center[1] found that 77% of Americans said they liked having so much information, a figure that went UP 10 percentage points from 2006!

77%

This means that people, especially millennials, are comfortable dealing with so much information and do not consider it debilitating. Now what does that mean for people who are putting out information for the public?

The key may lie in a recent study conducted by Colin Khoury of the International Center for Tropical Agriculture (CIAT)[2]. The study paired scientists with graphic artists, to work on communicating ideas on socially relevant produce- and agriculture-based challenges. The idea was to explore the efficacy of collaborations between graphic artists and scientists as a vital component in science communication. The scientists first presented the results at this year's annual meeting of the American Association for the Advancement of Science (AAAS).

What emerged was interesting: Scientists were forced to distil complex thoughts into accessible messages, and the graphic artists loved the challenge of representing science as art.

One of their recommendations was to make graphic design an important part of science communication—be it in academic papers or press releases—especially for socially relevant research.

Is there anything for us, in the social sector?

Our lessons may lie in the study. The social sector is also looking to simplify complex concepts, and our need for eyeballs is arguably greater than that of the scientific world.

The sector, as a whole, has made several strides design-wise. Annual reports of non-profits already feature infographics, and some have also gone for multimedia reports. Including graphic design might come in handy in various situations, including, but not limited to, social media and presentations.

However, the most significant change may occur in terms of how we start thinking. In the CIAT study, scientists said they appreciated the direct nature of the design process, which helped them frame their results appropriately, and designers said that they appreciated the challenge of combining design and science.
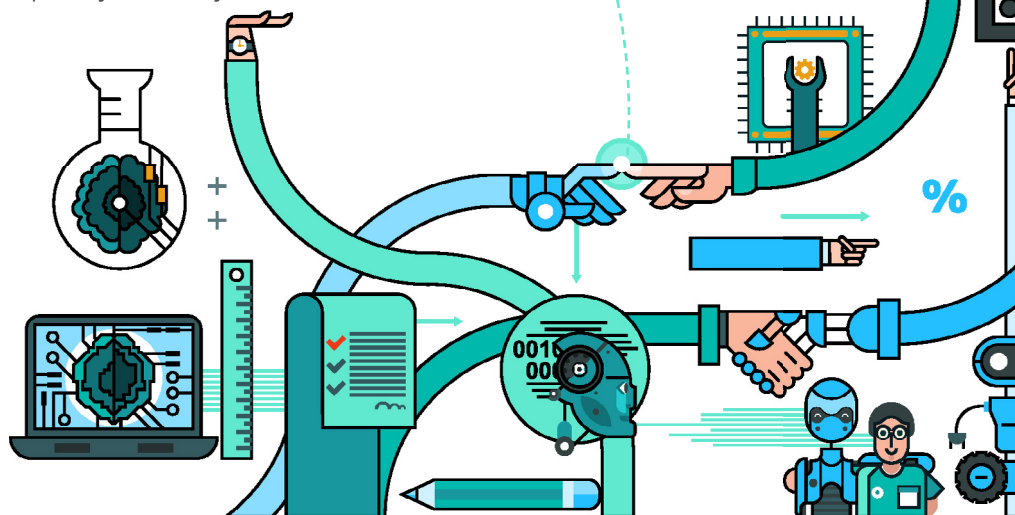
[1] John B. Horrigan, "Information Overload." Pew Research Center, December, 2016, Available at: http://www.pewinternet.org/2016/12/07/information-overload

[2] Khoury CK, Achicanoy HA, Bjorkman AD, Navarro-Racines C, Guarino L, Flores-Palacios X, Engels JMM, Wiersema JH, Dempewolf H, Sotelo S, Ramírez-Villegas J, Castañeda-Álvarez NP, Fowler C, Jarvis A, Rieseberg LH, and Struik PC (2016) Origins of food crops connect countries worldwide. Proceedings of the Royal Society B (Proc. R. Soc. B) 283(1832): 20160792. doi: 10.1098/rspb.2016.0792. https://doi.org/10.1098/rspb.2016.0792
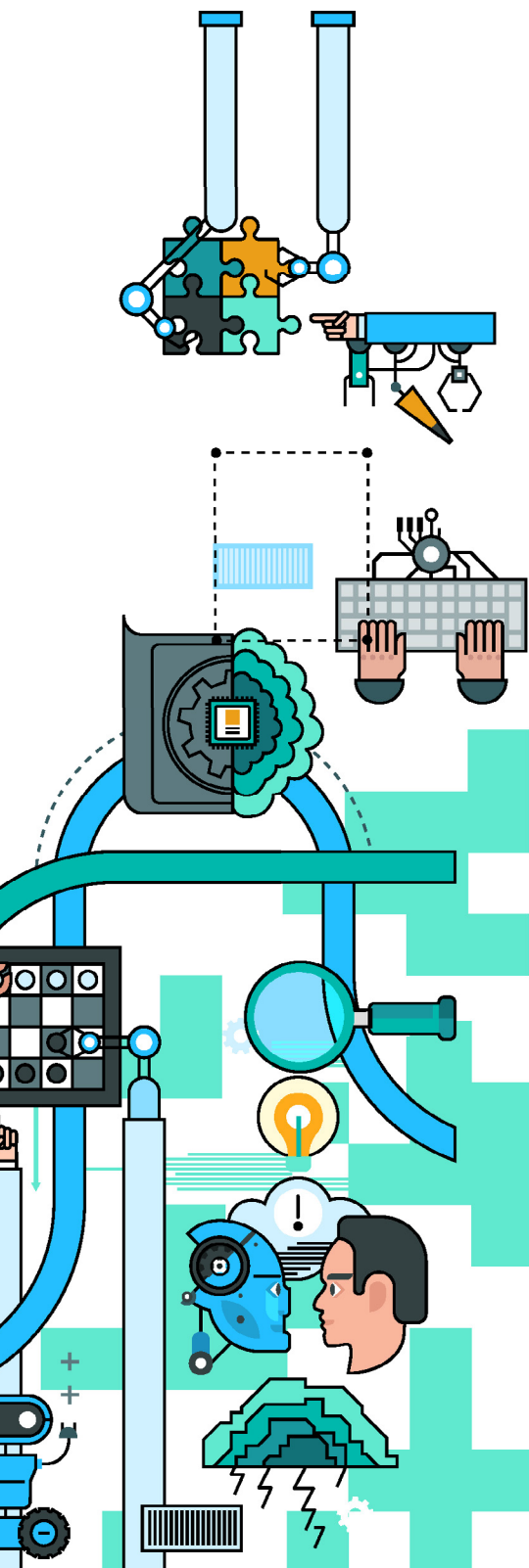
Sample exercises to get started on a design journey:

1. Depict the organization's vision/mission in a single graphic.
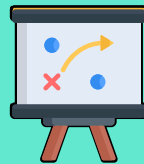
2. Draw icons representing the different departments, in proportion to the number of employees in each.

3. Describe any project of the organization in a graphic.

When you adopt design thinking, some other things happen:

1. Connections and correlations become obvious
2. Solutions are easier when problems are represented visually
3. Thought becomes succinct and to-the-point

For non-profits, thinking visually might help cut to the chase, perhaps examine our path and plans, and make the connections that text is rarely suited for. This does not necessarily mean splurging on a graphic designer. It just means that members of a team start thinking in design terms. While several free drawing tools available in the market, it might only be a question of connecting the dots.

Integrating visualization into our communication will mean starting to think about design as we think about text: right from the start of a project. The most lasting change will come from integrating design thinking into the DNA of the organization, and moving away from a photo+text template.

> **For non-profits, thinking visually might help cut to the chase, perhaps examine our path and plans, and make the connections that text is rarely suited for.**
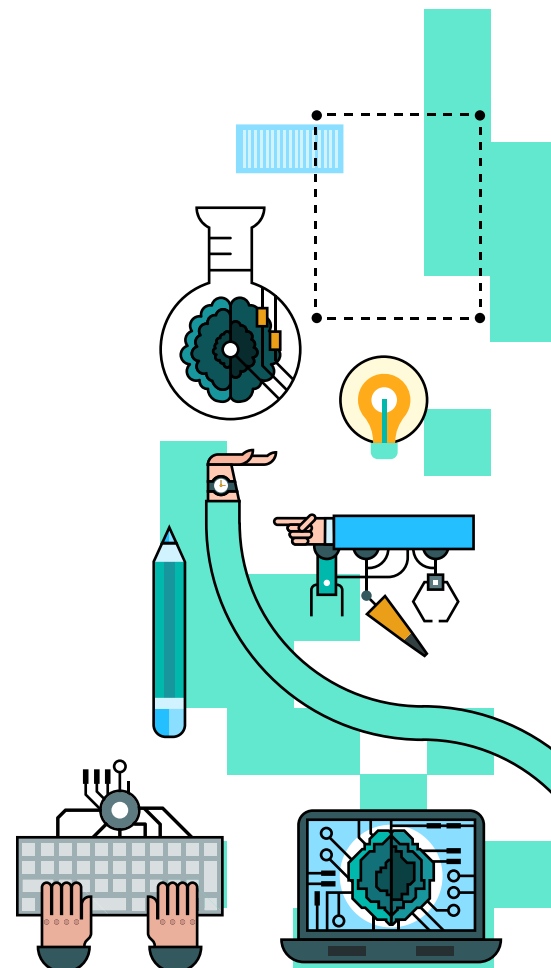
Forcing a look in the mirror

Winners Take All: An Elite Charade of Changing the World
Anand Giridhardas
Knopf Publications
Amazon.in, $11.54

By iMPACT Staff

If there's one image from the 2019 World Economic Forum in Davos that captured the imagination of the world, it's that of Dutch historian Rutger Bregman berating the rich for not paying their fair share of taxes. "It feels like I'm at a firefighter's conference, and I'm not allowed to speak about water," he famously said. You wonder how the audience, primarily comprising those self-same rich, might have felt.

Wonder no more, just read Anand Giridhardas's *Winners Take All: An Elite Charade of Changing the World*, an indictment of "MarketWorld" philanthropy and a call to return to a more involved government and civil society.

It's an important book to read for those of us working in the space of philanthropy and social development, especially because it is an unabashed criticism of how things stand. It gives us an insider's view of how change is viewed by various players of the system, and spotlights growing concerns about the legitimacy of large-scale corporate-led philanthropy.

Giridhardas shines light on the darkest corners that philanthropy has long desisted exploring for fear (and perhaps, knowledge) of what it might find there. Das, a former columnist with *The New York Times* and author of *India Calling: An Intimate Portrait of a Nation's Remaking*, takes on American philanthropy in a damning indictment of the "Do Good By Doing Well" credo.
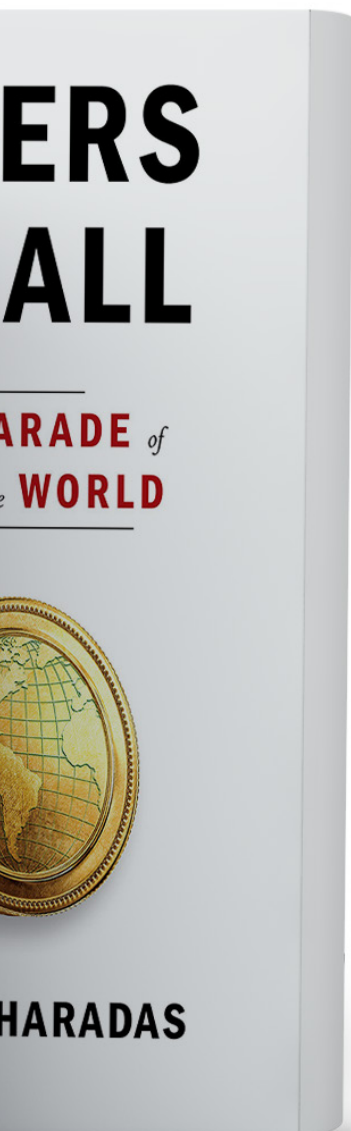
Giridhardas argues that the Western ideal that big change can only be brought about by the same ethos that encouraged

the growth of big corporations is dangerous, for it perpetuates a cycle of increasing inequity.

He reserves his choicest criticism for the idea that MarketWorld can solve any of the problems it helped create, without acknowledging and mitigating its role in the creation of those very problems. "The only thing better than being a fox is being a fox asked to watch over hens," he says, in the foreword, setting the tone for a detailed examination of billionaire philanthropy.

He expertly examines, through interviews and personal stories, the larger lay of the land—from B-Lab founder Andrew Kassoy to Silicon Valley Community Forum's Emmett Carson, from Amy Cuddy, a social psychologist who ends up changing the focus of her TED talk to make it more "digestible" to, finally, Chiara Cordelli, an Italian political philosopher whose idea of social change is diametrically opposite to the idea of private philanthropy.

Das comes at the problem through various angles and having exhausted them all, returns to the idea that positive social change is possible only through collective action and an *increased* role of the government in enabling that change.

One of the most lasting (and perhaps, funniest) images from the book pits the two paths of social change against each other on a 4-day Summit at Sea, where more than a thousand MarketWorld enthusiasts gather over four days to discuss various ways of "changing the world" but Das leaves us in no doubt about what he thinks happens.

The two are Edward Snowden, whistleblower extraordinaire, beamed from Russia via video and Chris Sacca, "wildly successful" venture capitalist, who is hosting the event.

Snowden talks about challenging status quo, and welcoming heresy. Only, here, heresy morphs to mean "new technologies" and Sacca asks a bewildered Snowden if he'd like to develop a business and if so, would he like investors?

The book also forces us to ask questions of ourselves and our own motivations, for it is not difficult to see a parallel at the

Giridhardas shines light on the darkest corners that philanthropy has long desisted exploring, for fear (and perhaps, knowledge) of what it might find there.

personal level: Are we skimming over the injustices we perpetrate in our quest for personal and professional success, by donating and volunteering for causes we deem to be passionate about?

Das, however, spends too little time on probable alternatives. It feels like the solutions are not examined as critically as the problems with MarketWorld. While the book is understandably U.S.-centred, it comes at a time when many countries around the world are coming around to the idea of markets leading social change, with minimum "interference" from the government.

The book seems even more urgent today, as the opioid crisis balloons, and the Sackler family faces charges filed by the State of Massachusetts. While the Louvre recently taped over the Sackler family's name (as a benefactor) following the opioid revelations and public outcry, prompting an examination of philanthropy's complicity, Das's suggestion—creating systems to reject the donations in the first place—might just be what the doctor (genuinely) prescribed. ⓘ

Our Picks

WHAT WE'RE READING

- **How Not to Die (2015)** by Dr. Michael Greger with Gene Stone

  In this book, American physician and lecturer Dr. Michael Greger with writer Gene Stone examine the truth behind the only diet that can prevent or reverse many of the world's killer diseases including heart disease, diabetes, and various cancers.

- **The Google Infused Classroom: A Guidebook to Making Thinking Visible and Amplifying Student Voice (2017)** by Holly Clark and Tanya Avrith

  EdTech experts Holly Clark and Tanya Avrith shares different ways to utilize technology in the modern classroom to improve learning outcomes and make lessons come alive.

- **A Life Less Throwaway: The Lost Art of Buying for Life (2018)** by Tara Button

  In a world where people desire for the expensive and shiny things, eco-campaigner and entrepreneur Tara Button explores the idea of "mindful curation"— a way of living in which we carefully choose each object in our lives to promote sustainable living and help save the environment from further degradation.
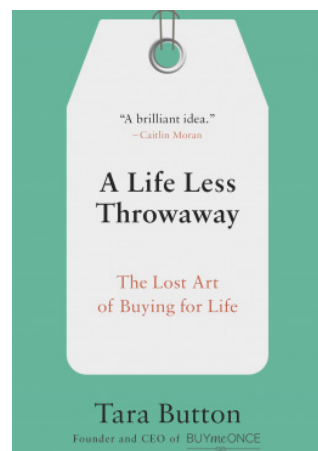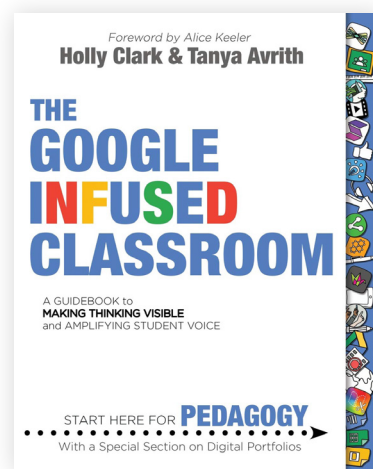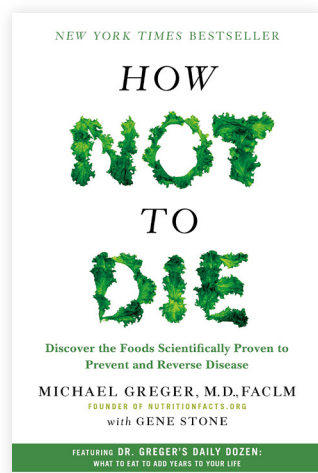
WHO WE'RE FOLLOWING

- **TriplePundit**

  TriplePundit is a global media platform aimed at business leaders by providing a curated list of stories ranging from energy, environment, education, health, and more. Led by a team of editors, TriplePundit believes that business can be a force of good, and can inspire change in the development and social space.

- **Girl Rising (2013)**, directed by Richard E. Robbins

  Helmed by American filmmaker and documentary maker Richard E. Robbin, nine girls from nine low-income countries (India, Cambodia, Nepal, Haiti, Ethiopia, Egypt, Peru, Sierra Leone, and Afghanistan) share their inspiring tales on overcoming cultural barriers to pursue education and eventually change their lives.

- **Lo and Behold, Reveries of the Connected World (2016)**, directed by Werner Herzog | On Netflix

  Werner Herzog explores the colossal force that is technology and whether the rapid influx of innovations such as robotics, artificial intelligence, and Internet of Things is a boon or bane in the context of human life.

WHAT WE'RE STUDYING

- **Interplay of Technology & Economics in Climate-Smart & Sustainable Agriculture (2019)**, Onur Tahmaz

  Climate change has made current conventional agriculture practices invalid. Temperatures continue to rise in an alarming rate, and it is essential for farmers to adopt new methods to mitigate climate-related effects. The 24-page publication gives insights into technological advancements such as climate-smart agriculture and the barriers that hinder farmers from fully utilizing its promised benefits.

WHAT WE'RE DOWNLOADING

- **Forest**

  Forest by Seekrtech Co., Ltd is a productivity app aimed to help users manage their time. By decreasing screen time, users can plant virtual seeds and earn some virtual coins. If the user leaves the app, the tree will wither. Seekrtech has partnered with tree-planting organization, Trees for the Future and for every 2,500 coins spent, Forest donates money to be used to plant real trees in Africa.

Whenever you want to focus on your work, plant trees
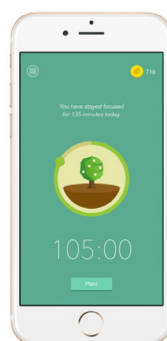
Looking for your next read, documentary to watch, or organization to follow? Look no further, for we share some of our favourites in the development space.

If you'd like to suggest a resource for inclusion in this list, email us at **editor@asianngo.org**

Grants and Prizes

Grant Opportunities
This is a curated list of grants and prizes. For more, please visit www.asianngo.org

Open Grants

1. Call for Applications: Social Justice Fund
Deadline: October 14, 2019
Amount: USD 50,000
www.ajmuste.org/programs#fs
Seeks to support grassroots activities across the globe with a focus on ending violence and criminalization towards immigrants, discrimination towards ethnic and LGBTQ communities, abolishing the death penalty, and eradication of poverty and state-sponsored terrorism.

2. Dining for Women: Fostering Good Health, Education & Economic Self-Sufficiency in Developing Countries
Deadline: October 24, 2019
Amount: USD 35,000-50,000
www.diningforwomen.org/learn/grants/apply-for-a-grant
Seeks to support grassroots international organizations empowering women and girls living in extreme poverty by funding projects that foster good health, education, and economic self-sufficiency in developing countries.

3. Call for Applications: SCI Foundation Large Grants
Deadline: October 31, 2019
Amount: USD 50,000
www.largegrants.scifoundationgrants.org/theprocess
Aims to contribute to the sustainable management of natural resources or the advancement of constructive wildlife research.

4. Call for Applications: Mohamed bin Zayed Species Conservation Fund
Deadline: October 31, 2019
Amount: USD 25,000
www.speciesconservation.org
Aims to provide targeted grants to individual species conservation initiatives, recognize leaders in the field of species conservation and elevate the importance of species in the broader conservation debate.

5. Request for Applications: IDEAL Micro Grants
Deadline: November 1, 2019
Amount: USD 50,000
www.fsnnetwork.org/sites/default/files/SC-IDEAL-MG-RFA-2019.pdf
Aims to support the development of products and tools, conduct events, and implement practical activities to improve the quality of food and nutrition security programming among USAID Food for Peace-target populations.

6. Call for Proposals: Gender, Growth and Labour Markets in Low-Income Countries
Deadline: November 11, 2019
Amount: EUR 30,000
www.glm-lic.iza.org/call-for-proposals-2019
Aims to build a significant new body of evidence on gender, growth, and labour markets to help shape gender and labour market policies in low-income countries.

7. Call for Applications: Reducing Stigma to Improve HIV/AIDS Prevention, Treatment and Care in Low- and Middle-Income Countries
Deadline: November 12, 2019
Amount: USD 150,000
www.grants.gov/web/grants/view-opportunity.html?oppId=318998
Aims to stimulate new and impactful research towards the development of stigma reduction interventions leading to better outcomes for the prevention and treatment of HIV/AIDS and on the quality of life of People Living with HIV/AIDS (PLWH) in low- and middle-income countries.

8. Call for Applications: Environmental Research and Education Foundation Grant
Deadline: December 1, 2019
Amount: USD 300,000
https://erefdn.org/research-grants-projects/how-to-apply-for-grant
Seeks to implement environmental research on solid waste management such as waste minimization, waste conversion, and landfilling.

9. Call for Applications: Rapid Response Fund
Deadline: December 31, 2019
Amount: USD 50,000
www.opentech.fund/funds/rapid-response-fund
Seeks to facilitate the digital emergency response community to resolve threats in a timely and comprehensive manner for activists, journalists, and other human rights defenders facing digital attacks and emergencies of various kinds.

10. Call for Applications: World Development Main Grants
Deadline: December 31, 2019
Amount: GBP 50,000-100,000
www.waterloofoundation.org.uk WorldDevelopmentAboutTheProgramme.html
Aims to support organizations which help economically disadvantaged communities and people build the basis of sustainable prosperity.

Open Prizes

1. Grinnell College Innovator for Social Justice Prize
Deadline: October 7, 2019
Prize: USD 100,000
www.grinnell.edu/about/grinnellprize/nominations
Honors individuals who have demonstrated leadership in their fields and who show creativity, commitment, and extraordinary accomplishment in effecting positive social change.

2. UNESCO King Hamad Bin Isa Al-Khalifa Prize for the Use of ICT in Education
Deadline: October 31, 2019
Prize: USD 25,000
www.en.unesco.org/themes/ict-education/ict-education-prize
Recognizes innovative approaches in leveraging new technologies to expand educational and lifelong learning opportunities for all, in line with the 2030 Agenda for Sustainable Development and its Goal 4 on education.

3. Soroptimist's Live Your Dream: Education & Training Awards for Women
Deadline: November 15, 2019
Prize: USD 16,000
www.soroptimist.org/our-work/live-your-dream-awards/apply-for-the-live-your-dream-awards.html#tips
Recognizes women who provide the primary financial support for their families by giving them the resources they need to improve their education, skills, and employment prospects.

4. iF Social Impact Prize 2019
Deadline: November 20, 2019
Prize: EUR 50,000
www.ifworlddesignguide.com/social-prize/if-social-impact-prize
Recognizes projects that contribute to solving the most urgent challenges of our time such as poverty, hunger, water and sanitation, and inequality.

5. 2020 Future Conservationist Award
Deadline: November 21, 2019
Prize: USD 15,000
www.conservationleadershipprogramme.org/grants/grant-overview/future-conservationist-award
Recognizes and supports projects in low- and middle-income countries and some high-income islands in the Caribbean and Pacific that encourage and promote pro-conservation attitudes and deliver tangible results to better conserve and manage the natural world.

Decree on Sustainable Operations of Social Change Orgs

Sustainability is all the rage these days. There's Sustainable Housing, Sustainable Fashion (has high fashion ever been?), Sustainable Development, and the day isn't far when we're batting for Sustainable Climate Change and Sustainable Poverty.

How can we, as social change professionals, help? How can we contribute to sustainability without breaking the bank? We are breaking The Bank, though, for other reasons, but let's not go there.

First things first (and other obvious observations): Fly less. Seriously.

Second things second (this syntax is clearly not sustainable): Work within a distance of ± 10 hours' time difference. Surely, there are other organizations that can help folks within their own time zone ± 6 zones. Maybe that's what they can talk about at the next conference: splitting up the "countries that need help" like children choose teams for soccer in a neighbourhood park. Less tension all around. I am thinking India would get picked last. But that's what you get for exploiting your resources so much (that others cannot).

Three: Recycle ideas. There are places in the world where ANY intervention will help: Even just showing Dora the Explorer on loop can demonstrate increased English and Spanish language skills, less violence toward girls who look like Dora, and better negotiation of Grumpy Old Trolls. So choose any intervention. Show impact. Move on. Repeat.

Four: Ban conferences. You might see attrition/turnover like never before, but look at the positive. You'll see attrition/turnover like never before.

Five: Use solar energy. I don't know how, but solar will solve everything, if reports are to be believed.

Six: Have employees walk to the office. (There has to be at least one idea that will get adopted.)

Seven: Create an app for organization-wide sustainability. The app will give all subscribers daily alerts and ideas to remain sustainable. Basically, see if you can move the problem somewhere else, sort of like clearing your table's junk to the neighbouring table. Seems to work with countries; surely, it will work for a simple thing like an organisation?

Eight: Just don't do anything. Wait for the world to self-destruct (basically, same as what you are doing now). When the end is near, social change organizations will find that demand for their services has increased. Voila, you'll always remain relevant. Sustainable. Kaching! Oh wait, this isn't the list for how to make your organisations sustainable, is it?

There you have it! The Loveful Eight Ideas that will help you move your organization towards complete sustainability.

If you have any new ideas to add, or solar lights to send us, we'll arrange to have it picked up, within ± one time zone. Email **editor@asianngo.org**

TITLE OF ARTICLE	ORGANIZATION	WEBSITE
This Caught Our Eye: Trust the Rust	Caltech University	www.caltech.edu
	Northwestern University	www.northwestern.edu
This Caught Our Eye: Go Loco for Coco	Café Editha	www.facebook.com/caféeditha
This Caught our Eye: A Cure from VR	gameChange	www.gamechangevr.com
This Caught our Eye: So Long, Suckers!	Brown University	www.brown.edu
Doesn't add up: Mere accounting-based ICT not a good strategy	Center for Global Development	www.cgdev.org
The Power of the Word	PlanetRead	www.planetread.org
	Ministry of Information and Broadcasting, Govt. of India	www.mib.gov.in
	National Centre for Promotion of Employment for Disabled People	www.ncpedp.org
One Tech Does Not Fit All	Sattva Consulting	www.sattva.co.in
Tech-Enabled Education	Indus Action	www.indusaction.org
	Centre for Policy Research	www.cprindia.org
	Madhya Pradesh Right to Education Portal	www.rteportal.mp.gov.in
The Opportunity of a Lifetime	Opportunity International	www.opportunity.org
No Child's Play, This	Chekutty	www.chekutty.in
5 Edu-Tech Solutions that Set the Bar High	Edovo	www.edovo.com
	Joy Business Academy	www.joybusinessacademy.com
	Natakallam	www.natakallam.com
	Lakmé Cosmetics	www.lakmeindia.com
	OpenStax	www.openstax.org
ADB Forum Discusses Skilling for the Future	Asian Development Bank	www.adb.org
Rules of Engagement	iVolunteer	www.ivolunteer.in
Filling in a Blank Canvas	Assist Creative Labs	www.creativelab.assistasia.org
Food for Deeper Thought	Negrense Volunteers for Change	www.nvcfoundation-ph.org
Increasing Energy Levels	PowerMitra	www.powermitra.com
Designer Data	CIAT	www.ciat.cgiar.org

2020 INTERNATIONAL TRADE FAIRS

JANUARY

OPTI
Optics and Design
10-12 | Munich, Germany

DOMOTEX
Floor Coverings
10-13 | Hannover, Germany

IMM COLOGNE
Interior Design
13-19 | Cologne, Germany

ISPO MUNICH
Snowsports, Outdoor, Health & Fitness,
Urban and Teamsports
26-29 | Munich, Germany

MAY

IFAT
Environmental Technology Solutions
04-08 | Munich, Germany

THAIFEX-ANUGA ASIA
Food & Beverages, Food Technology,
and Retail & Franchise
26-30 | Bangkok, Thailand

PHOTOKINA
Photography, Video and Imaging
27-30 | Cologne, Germany

SEPTEMBER

SPOGA+GAFA
Garden industry
Cologne, Germany

FURNITURE CHINA
Furniture and Home Furnishings
Shanghai, China

MAISON SHANGHAI
Home Furnishings
Shanghai, China

IE EXPO GUANGZHOU
Environmental Technology Solutions
Guangzhou, China

CERAMITEC
Ceramics Industry
19-20 | Munich, Germany

KIND + JUGEND
Baby and Toddler Products
Cologne, Germany

FEBRUARY

ISM
Sweets and Snacks
02-05 | Cologne, Germany

ISPO BEIJING
Snowsports, Outdoor, Health & Fitness and
Manufacturing & Suppliers
12-15 | Beijing, China

INHORGENTA
Jewelry and Timepieces
14-17 | Munich, Germany

F.RE.E
Leisure and Travel
19-23 | Munich, Germany

JUNE

TIRE COLOGNE
Tire industry
09-12 | Cologne, Germany

TRANSPORT LOGISTIC CHINA
Logistics, Mobility, IT, and Supply Chain
Management
16-18 | Shanghai, China

AUTOMATICA
Smart Automation and Robotics
16-19 | Munich, Germany

OCTOBER

CHINA BREW CHINA BEVERAGE
Beverage and Liquid Food
13-16 | Shanghai, China

GAMESCOM ASIA
Interactive Games and Entertainment
15-18 | Singapore

ORGATEC
Planning, Installation and Design of Office
& Object
27-31 | Cologne, Germany

EXPO REAL
Real Estate and Investment
Munich, Germany

IFAT INDIA
Environmental Technology Solutions
Mumbai, India

APRIL

ANUFOOD CHINA
Food and Beverage
15-17 | Shenzhen, China

HANNOVER MESSE
Industrial Technology
20-24 | Hannover, Germany

IE EXPO CHINA
Environmental Technology Solutions
21-23 | Shanghai, China

INTERNATIONAL DENTAL EXHIBITION AND MEETING (IDEM)
Dental Industry
24-26 | Singapore

WINE & GOURMET JAPAN
Wine, Beer, Spirits and Gourmet Food
Tokyo, Japan

AUG.

GAMESCOM
Interactive Games and Entertainment
Cologne, Germany

NOVEMBER

ELECTRONICA
Electronics, Components, Systems,
Applications and Solutions
10-13 | Munich, Germany

BAUMA CHINA
Construction Machinery, Building
Material Machines, Mining Machines and
Construction Vehicles
24-27 | Shanghai, China

FENESTRATION BAU CHINA
Windows, Doors and Facades Technology,
Components, Prefabricated Units and
Building Materials
Shanghai, China

YUMMEX MIDDLE EAST
Sweets and Snacks
Dubai, UAE

DEC.

BAUMA CONEXPO INDIA
Construction Machinery, Building
Material Machines, Mining Machines
and Construction Vehicles
Delhi, India

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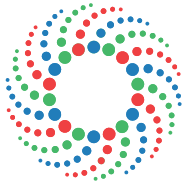
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