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# FORESIGHT

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## WOMEN POWER AT THE WORKPLACE

Creating diversity  
that matters

The world after #MeToo  
is full of possibilities

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Can digital brands win in  
financial services?

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Complexity of data colonization

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Head-Heart-Hand: CSR in 2019

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# Both Men and Women are from Earth

*In this third edition of Foresight, we dig a little deeper into women empowerment, why we must embrace diversity at work and the impact of the global #MeToo movement*

Women today constitute roughly half of the world's population. Since the early 1950s, this ratio has remained more or less the same, save for the fact it has tilted slightly in favor of men over the years. But the change is too negligible for any meaningful debate here. And yet here we are fighting for gender equality in 2019.

What most of us in the civilized world do agree is that any form of gender bias, obvious or subtle, is abhorrent and inexcusable. The price of any kind of bias is paid not just by the victims but by all of us. The source of air pollution is ultimately immaterial because we all breathe the same air. Until we take collective responsibility to find a solution to this malice in our society, none of us will be any wiser.

In this third edition of Foresight, we dig a little deeper into women empowerment. Our cover package is led by a piece on why we must embrace diversity at work, particularly in the tech sector by Geetha Kannan, Managing Director of AnitaB.org India, followed by Priya Chetty-Rajagopal's take on the global #MeToo movement and an insightful conversation with Rajiv Nayan, Head of Sales for the Americas — Digitate, on how empathy in the AI context isn't about creating robots with feelings, but creating platforms, engines, and bots that detect and respond to human emotions.

We are also excited to present interesting takes on the changing dynamics in the global economy that is upsetting

oil-driven superpowers and why the ubiquitous water is fast becoming the source of conflicts around the world. Osama Manzar, who leads the fight for digital equality in India, offers his views on data security and privacy from a national-sovereignty perspective, a subject that is also shaping the global digital economy.


At the start of every issue of *Foresight*, we cast our net far and wide to present you some interesting thoughts by leaders in the respective fields. But for a thought-leadership magazine to succeed in what it has set out to do, it will need a generous dose of vox populi.

Since the first edition of *Foresight* we presented you in June 2018, we have been flooded with feedback, suggestions, criticisms, and words of encouragement.

Dear reader, we thank you for that and hopefully, this will continue ceaselessly.

Godspeed!

**SHASHI KIRAN SHETTY**  
Chairman, Allcargo Logistics Ltd



# CAN DIGITAL BRANDS WIN IN FINANCIAL SERVICES?

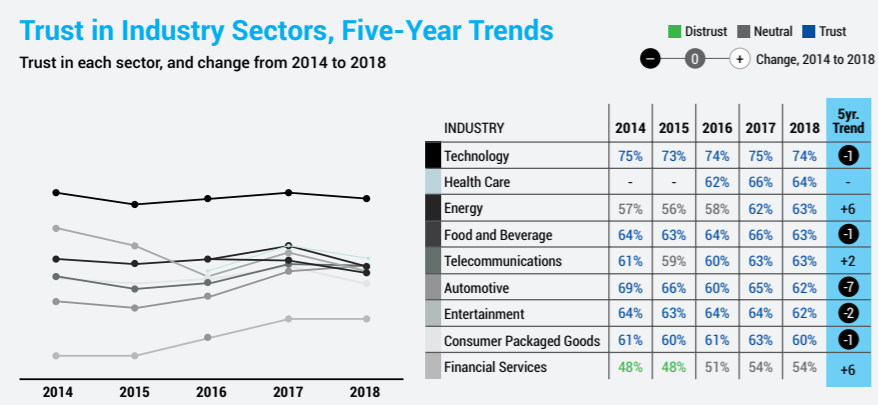
TRADITIONAL BANKS HAVE A LOT TO LEARN FROM DIGITAL FINANCIAL SERVICES, AND FOREGOING THAT LEARNING MAY RESULT IN THEM BEING RENDERED OBSOLETE.

Senthil Kumar Venugopal

Evolving digital technologies, shifting consumer preferences, and increasing competition pose the biggest challenges for traditional banks today. There is no doubt, traditional high-street banks are feeling the pressure from more agile, digitally-led challenger banks and FinTech brands, be it the likes of Atom, Monzo and Starling in the UK and Ireland or Paytm in India or Alibaba, WeChat, Facebook, Apple, Amazon and Google entering the global banking sector. The new players are eating into the customer base of traditional brick-and-mortar behemoths.

What needs to be understood is how experience is becoming the driving force in today’s banking. As digital challengers, new-age financial service providers already have the proven strength in creating niche experiences. In contrast, the expectation from traditional banks is to quickly adopt new technologies. This amounts to re-inventing the wheel in trying to create more meaningful, seamless and intuitive customer experiences.

The billion-dollar question is: Are new financial service brands making money?



Source: 2018 Edelman Trust Barometer. TRU\_IND. Please indicate how much you trust businesses in each of the following industries to do what is right. Again, please use the same 9-point scale where one means that you “do not trust them at all” and nine means that you “trust them a great deal”. (Top 4 Box, Trust), industries shown to half of the sample. General Populations, 27-market global total.

The battle is still raging, and it has created many positive trends, significantly: growing customer confidence and trust for banking, which is at an all-time high. One would imagine traditional players have an advantage due to their reach. However, they are yet to catch up in the payments game where online specialists or digital merchants have emerged as the popular choice among customers. With the ratio of digital wallets to banks standing at 2:1 at the moment, it is only a matter of time before we see the digital presence of traditional banks merging with their physical presence. In this scenario, the more pertinent question to ask

With the ratio of digital wallets to banks standing at 2:1 at the moment, it is only a matter of time before we see the digital presence of traditional banks merging with their physical presence.



No one is willing to wait any longer

Everyone is aware of how incredibly slow it can get when it comes to doing business with traditional banks. The average “time to decision” for small business and corporate lending swings between three and five weeks, and the average “time to cash” is nearly three months. Just as the three weeks it once took to cross the Atlantic is now unthinkable, such practices too will have to evolve with new technologies like blockchain if traditional banks are to enable a smooth cross-channel journey.

As we look into the future, the demand for increasingly flexible and convenient services in our daily lives is only going to grow. With this, banking is expected to transform in the way we experience it even further, making it possible to

request a cash withdrawal from a mobile banking app or letting your mother use a QR code to pay at the Walmart store or in getting an instant credit offer at the point of sale.

The current crop of digital-first players like Alipay, Apple Pay, Google Pay, WhatsApp and PayPal is showing the way forward in the launch and monetization of such new services.

There are endless opportunities waiting to be explored. The current crop of digital-first players like Alipay, Apple Pay, Google Pay, WhatsApp and PayPal is showing the way forward in the launch and monetization of such new services.

Beyond the P2P revolution: The long road ahead

If one is to take a deeper look into the lending opportunities that exist and the multitude of peer-to-peer (P2P) platforms mushrooming across the globe, there is still a lot more that needs to be done to strengthen the framework. Although a P2P lender is an information provider that matches borrowers with lenders, most players tend to raise money from depositors before lending it to corporate borrowers, such as property developers, to chase high returns.

A spate of P2P platform collapses recently impacted hundreds of thousands of small investors across China. By any length of imagination, these are just early days and it is best to wait and see if these new avenues make any sense for customers to join the party.

It is a fact of life that loans to both individuals and businesses can and do go wrong, irrespective of whether they are through banks or P2P lending platforms.

Just as investing in the stock market and most other types of investment requires research, it is vital that investors carry out detailed due diligence for P2P platforms.

It needs to be understood that digital innovations in P2P are still evolving and it is a long road ahead until we achieve transparency and risk recalibration in this market.

## For and against the motion:

*"Peer-to-peer or P2P lending has emerged as an alternative option for investors who wish to earn higher rates of return than what traditional fixed-income instruments can offer."*  
— Business Standard

*"The losses which will emerge from P2P lending over the next five to 10 years will make the worst bankers look like lending geniuses."*  
— Lord Turner, former chairman of the Financial Services Authority

## What established financial services brands can learn from the digital players

When it comes to traditional banking institutions, there is a lot they can learn from disruptors like Ant Financial, which has cemented its position as one of the world's

It needs to be understood that digital innovations in P2P are still evolving and it is a long road ahead until **we achieve transparency and risk recalibration in this market.**

largest financial services brands emerging out of Alibaba and ranked within the top 10 globally by market capitalization.

## ■ Frictionless Business

It is estimated that up to 65 percent of customers interact with banks via multiple channels. This makes interactions extraordinarily complex, often starting in one channel, performing intermediate steps in others, and finishing in yet another medium. With plenty of pauses and information-gathering loops along the way, traditional banks can emulate the success of their digital counterparts in delivering a seamless multichannel experience by gathering real-time data and using analytics to understand the whole customer journey and get a unified view.

Introducing these changes in complex processes will help them stay compliant and add to the degree of freedom the ecosystem demands. It is no surprise that we find a staggering \$26 billion in regulator fines for non-compliance with Anti-Money Laundering (AML), Know Your Customer (KYC) and

sanctions were imposed in the last decade. Moving away from scanning transactions after it is processed to a "preventive compliance" culture could help traditional banks avert such disasters in the future.

## ■ Data-driven business agility

Data presents business with the context and integrity required to navigate and accept sources from outside their operations. Use of data and analytics can help banks tap into new avenues of growth, like sharing customer analytics capabilities with new ecosystem partners such as telecom companies or retailers. Banks could help customers manage consent while also giving back all that they know of the customer by requesting permission to use other sources.

This also alters the bank's ability to underwrite credit easily because it is now anchored to the financial statements or tax-filing information of the customer. The benefits work the same way customers share information about their location while taking a look at data provided by aggregators like Uber, Ola or Lyft.

## ■ Smarter Personalization

Most investments in the past decade have been driven by products that banks want to sell at their time of choosing. Today, the ability to provide liquidity to a consumer or business just in time based on transaction history and external events or communications is an extremely exciting prospect for banks looking to create new digital channels of growth. Use of digital technology will drive a great deal of trust and business value in the future.

Artificial Intelligence (AI) investments by banks will get them closer to delivering these new-age solutions. But it all depends on how they leverage AI to train their internal systems and engines to perform. Here, it is important to

Use of digital technology will **drive a great deal of trust and business value in the future.**

note the past generation of data sources will not move the needle much and banks will have to determine new touch points in the existing system that will be most suitable for AI action.

It goes without saying that the opportunities to improve customer experience and opportunities are plenty. Success in today's evolving banking landscape means much faster credit decisions with customers getting cash up to 80 percent sooner, lower costs, and 30-50 percent less time spent on decision-making. It warrants

better-quality risk decisions that translate to greater profitability down the road.

While recognizing this reality, there will be no single winner and the future is likelier to witness greater collaboration or even mergers among the biggest traditional banking institutions and digital players.



*Senthil Kumar Venugopal is advisor to Zelig Associates and former group vice-president of Oracle Financial Services. Based out of London, Senthil has deep sector experience in the technology and financial services industry.*

# COMPLEXITY OF DATA COLONIZATION

DIGITAL IS A NEW MEDIUM AND A NEW LANGUAGE WHERE HUMANS HAVE BECOME DATA AND DATA IS A NEW BUSINESS ORDER. THERE IS A GOLD RUSH FOR DATA OWNERSHIP AND CHALLENGES ARE BEING DISCUSSED AROUND DATA OWNERSHIP VIS-A-VIS DATA COLONIZATION AND EVEN LOCALIZATION.

Osama Manzar & Anulekha Nandi



The term data colonization packs in not only this current reality but also the weight of economic, social, and political history

The use of the term “data colonization” by Mukesh Ambani, Chairman & Managing Director, Reliance Industries, in multiple industry summits has given it contemporary purchase. Arguing for greater control by India and Indians over their data, he also spoke about the need for the world to move from an aggregator to a distributor model. This comes in the wake of deepening legal, policy, and regulatory interest in different aspects of India’s burgeoning digital domain. It includes debates around India’s draft data protection bill, calls for data localization, and

## Colonization

Colonization has a deep, protracted, and violent history the world over. It represented a ruthless and repressive political system systematically engineered to service the mercantilist aims of colonial powers. This is true of the British in India and West Asia, the French and Germans in Africa, and the Dutch in South-East Asia.

In order for Manchester cotton to pervade world markets, a rule of force was needed to violently cut off the thumbs of Bengal’s muslin weavers and desolate an industry in its entirety. Similarly, a deeply embedded feudal system, loyal to the ruling colonial power, made sure that British commercial interests triumphed in mercilessly forcing Indian farmers to grow indigo on their fields against their own livelihood interests.

According to Ambani, data colonization is as bad as previous forms of colonization and that for “India to succeed in this data-driven revolution, necessary steps will have to be taken to migrate the control and ownership of Indian data back to India — in other words, Indian wealth back to India.”

In order to understand this relationship, it is important to identify the ruler and the ruled, or, in other words, the locus of sovereignty and control in this digital globalized world and

changes in India’s e-commerce landscape, among others.

The term data colonization packs in not only this current reality but also the weight of economic, social, and political history. Therefore, it becomes important to explore its concurrent discursive strands to be able to evaluate its potential translation into operational policy prescriptions.



its contours of contemporary oppression. Ambani identifies the rulers as corporations — whether Indian or foreign — and the ruled as the Indian citizens, and concludes the locus of control to lie with foreign corporations who are currently active in the Indian digital domain.

In this context arises the question: Is there a singular non-negotiable brute politico-economic force that bars participation of a given cross-section of people in the digital domain? Given the advertising-revenue-generating model of technology companies like Google or Facebook, the reciprocal conversions into sales for individual business users through greater visibility must also be factored in to evaluate the relationship and effect on economies and specifics of inequalities in the given relationship and their aggregates.

## Inequalities

Following the wave of decolonization in the 1960s and proceeding from the NAM (Non-Aligned Movement) Summit of 1973, the 1976 Tunis Non-Aligned Symposium on Information prepared a program to ‘decolonize’. This led to a New World Information and Communication Order becoming the central plank of assessing global inequalities in information and communication flows. Culminating in the Many Voices, One World report by the

MacBride Commission in the 1980s, it posited that developed countries (or former colonial powers) owned and controlled the means of production and distribution of content to the rest of the world, thereby leading to newer forms of control manifested through colonization of social and cultural fields.

In the current context, with proliferation of digital technology and user-generated content, the mandates have transmuted towards localizing outflow rather than regulating inflow. However, given the rapid pace of India’s economic development, it represents a paradox in digital penetration.

There is still a substantial proportion of the population on the other side of the digital divide that is yet to reap the dividends of digital inclusion in the form of exercising the agency bestowed by the distributed democratic potential of the digital world that gives every person the opportunity to get their voice heard. However, their data is nevertheless collected through government programs aimed at social and economic inclusion.

Given a provision in the draft e-commerce policy to grant companies with a turnover of Rs 50 crore access to data stored in India along concomitant carve-out within the draft data protection bill for data processing with relation to government functions, it remains

In the current context, with proliferation of digital technology and user-generated content, the mandates have transmuted towards localizing outflow rather than regulating inflow

unclear on what parameters of informed consent would such data (especially of those from underserved communities) be aggregated and shared.

Therefore, the individual autonomy with respect to data remains a deeply complex one, mired in structural inequalities. A determination of the location of relative power needs a careful evaluation rather than a homogenization across nation-states. Thus, a more granular understanding is required in order to locate the enabling conditions for an individual to exercise their autonomy over their information.

## Role of data

Data represents the economic properties of an infrastructural resource as the driver of multi-sided markets through value creation by generating knowledge and insights and enabling automation of decision-making. The value of a datapoint increases with the pace at which it is processed and the value it generates by in combination with

important to remember that big data is a sum of its parts, and questions about individual and national security, sovereignty, and autonomy need deeper discussion to throw into sharp relief potential contradictions and conflicts.

For example, security experts warn about the security implications of localization of data in a particular server location that might be instrumental in creating an “attack surface” with an easy target. Therefore, the policy prescriptions of data localization arising out of the discourses about data sovereignty, ownership, and control would also need to be sieved through the actual proof of data resilience infrastructures that can effectively protect the data of citizens localized not just from national security threats but also from attacks on their constitutionally protected civil liberties.

This requires ethically informed technological and regulatory solutions for data security and protection that can maximize the potential of the Indian citizenry to move towards equitable opportunities of sustainable economic growth.

other data. This is what gives Big Data its value.

When discourses of colonization reanimate concerns over national autonomy and sovereignty, it is



Increasingly digitally-mediated socio-economic transformations have placed the individual citizen at the singular position of being the producer of an infrastructural resource in the form of data that powers rapidly transforming digital economies

## Challenges and opportunities

Increasingly digitally-mediated socio-economic transformations have placed the individual citizen at the singular position of being the producer of an infrastructural resource in the form of data that powers rapidly transforming digital economies. This inability to separate the individual from the resource has thrown up fundamental ethical, legal, and regulatory challenges as the world

stands once again at the cusp of new global order.

Whether colonization is the apt descriptor to explain and understand this new world order remains to be seen, given the former’s deeply painful recollection in the collective memory of billions of people the world over. Given that Indian companies too have overseas ambitions, what remains

more pertinent for nations like India is to proactively evaluate, negotiate, and firmly establish its own place in this rapidly changing world order.

As any able leader, it must listen to the hopes and aspirations of its people so that it can move ahead in the spirit of equity and sovereignty for all its citizens and be the beacon of what a sustainable new age economic order looks like.



Osama Manzar is founder & director of Digital Empowerment Foundation and he is member of governing council of Association for Affordable Internet (A4AI).



Anulekha Nandi is research consultant with DEF.



# CREATING DIVERSITY THAT MATTERS

**MANY COMPANIES ARE MISSING OUT ON THE OPPORTUNITY TO EMPLOY REALLY TALENTED PEOPLE IN TECHNICAL ROLES BECAUSE THEY ARE NOT LOOKING AT THE GENDER THAT FORMS ONE HALF OF THE GLOBAL SOCIETY.**

Geetha Kannan

## The Hub

According to the April 2018 McKinsey report *The Power of Parity*, **empowering women to participate equally in the global economy could add \$12 trillion to the GDP by 2025.**

Gender inequality and exclusion of women from the workforce has never been beneficial for any era or society. The gender gap not only leads to moral and social issues but is also a huge economic challenge. Equal representation of women in the workforce leads to business profitability and value creation that comes from access to a larger talent pool and diverse thinking.

According to the April 2018 McKinsey report *The Power of Parity*, empowering women to participate equally in the global economy could add \$12 trillion to the GDP by 2025. Unless women participate in technology, we cannot realize their true potential, which is essential for social and economic growth.

Technology is the backbone of global economies and all we do in our personal and professional lives is heavily dependent on it. With women being close to half the world's population (49.6 percent), it is important to have them as equal participants in the technology innovation we all need.

A 50:50 representation in the technical workforce is necessary for social, financial and digital equality among both genders. Imagine having artificial intelligence that did not include the rationale of women or technology products that could only be used by men. Can you already see signs of the gap we don't want?

Organizations across the world are making huge investments and efforts to address gender diversity.



Organizations must measure and track parameters that reflect the true state of women in the technical workforce, such as promotions and pay increments, exits, salary levels and learning opportunities.

Despite the increase in related policies and programs, diversity training programs and equal pay practices, there is a long road ahead.

According to AnitaB.org's 2018 Top Companies for Women Technologists report, women held 24.03 percent of technical roles within the 80 participating companies. There is only a 1.08 percent increase in this measure from 2017 to 2018. The Top Companies 2018 report analyzed workforce data on technical employees from global technology organizations, including Amazon, Google and Microsoft. The scenario does not change, even when we go to another region.

According to a report by WISE, women make up 23 percent in core STEM occupations in the UK and 24 percent of those working in core STEM industries. The

numbers clearly indicate the gender ratio in the technical workforce is far from equal. Women are still underrepresented and many do not have uniform opportunities.

Here are five recommendations for organizations to bring about a real change, to increase the representation of women in the technical workforce:

### 1 Measure diversity to drive actual change

In addition to measuring the gender diversity ratios, organizations must measure and track parameters that reflect the true state of women in the technical workforce, such as promotions and pay increments, exits, salary

levels and learning opportunities. If organizations want to be really transparent and accountable for diversity at the workplace, then this information should be shared with the business leaders and all other employees. It is also important to measure diversity programs within the organization with objective data and qualitative metrics. Initiatives that have no impact or progress need to be replaced with better and newer measures that will ensure the change desired.

### 2 Equal pay for equal work

An organization's process and culture should enforce equal pay for men and women. A recent survey by the Monster Salary Index (MSI) found there was a 20 percent gender pay gap in corporate India in 2017, with men raking in a median gross hourly salary of Rs 231 in comparison to women who earned Rs 184.80. Pay disparity is tricky and highly complex to tackle, but if left unaddressed will lead to all other diversity initiatives being less effective. Financial equality is a key driver for the social-cultural influence and living standard that an individual experiences.

Organizations should realize it is important to ensure the **diversity efforts are more about action than just the narrative.**

### 3 Sponsorship to advance the careers of women in technology

Organizations should have formal sponsorship programs where sponsors are mapped to talent across all levels among women in technology. The sponsor plays an active role in sourcing higher-learning and career-growth opportunities. They ensure the curriculum vitae reaches the right decision makers and are a strong advocate of the capabilities of the individual being sponsored. Sponsorship is a great retention tool for women from entry right up to senior management levels.



Geetha Kannan is Managing Director, AnitaB.org India. Geetha has been working actively for 15 years with industry associations and partners to support the inclusion of women.

### 4 Increase women at leadership levels

Having gender diversity in senior leadership roles can be easily correlated to higher performance and profits. According to the January 2018 McKinsey report Delivering Through Diversity, companies in the top quartile for gender diversity on their executive teams were 21 percent likelier to experience above-average profitability than companies in the fourth quartile.

Increased percentage of women in senior leadership will ensure role models at the workplace. In addition to having an effective leadership development program for women, organizations will also need to address challenges such as unconscious bias.

### 5 Limit the unconscious bias

Unconscious bias exists at an organizational and individual level and significantly contributes to widening the diversity gap. Organizations need to have a dominant culture and sensitization campaign that addresses unconscious bias and discourages employees from stereotyping.

The increase in the number of women in the technical workforce on a global and India levels is an opportunity for every organization to keep focusing on the efforts being made. Organizations should realize it is important to ensure the diversity efforts are more about action than just the narrative. Only then can we make a real impact on the 50:50 vision for inclusion of women in technology.

# THE WORLD AFTER #MeToo IS FULL OF POSSIBILITIES

AS THE WORLD EMBRACES CHANGE IN THE WAKE OF THE  
#MeToo MOVEMENT, IT BECOMES INCREASINGLY IMPORTANT  
THAT THE NEW WORKPLACE IS FAIR TO BOTH GENDERS

Priya Chetty-Rajagopal



Stay the course, however awful, however hard.  
Going forward, we owe a safer, more sanitized  
work environment for the next generation.

#MeToo exploded around me in India as I blinked in shock. Of course we knew it existed, but this endemic, at this pace and with tales ranging from long ago to now? The sheer force of the catharsis that poured out on social media, print and TV clearly showcased just what the force of the status quo was and how much it had cornered and boxed women. It also shone the light on one more thing. The time had come: The time for sweeping things under the carpet was over, as was that of the embarrassed shrug, the “boys will be boys” explanation or the ironic exhortation to “man up, ladies.”

What was the harder, more perplexing, reaction to watch was the reaction from the men and women who dismissed the whole movement as self-serving and over the top, but more on that later. They used intelligence, sharp satire and a sneering outrage to respond. Some people bring in the surgical steel of due process when they are cornered and their beliefs threatened,

and often when they have been perpetrators, bystanders or enablers themselves.

In their rational, pragmatic arguments, I could hear the faster heartbeat of not wanting to be on the wrong side. It's difficult to

explain but the nearest example is the congenital neurosis of having been the bad guys in the war: on the losing side.

I have heard the stretched-thin skin of this argument many many times. Let me tell you it does not



Companies, extremely careful about legal backlash and respectful of individuals, especially women's rights, will put into place a stronger set of processes, a more stringent framework to address the discomfort of an important work demographic.

come from innocence. It does not come from distance and intellect, though it wears the strong mask of doing so. It's about protecting an older, patriarchal, more set and safer status quo. As many men going beyond #MeToo said, #MenToo...: "It's time for us to step out and step up."

Going forward, we owe a safer, more sanitized work environment for the next generation.

A well-known journalist asked me: "After #MeToo, does 2019 offer hope for women in India's workforce?" I responded: "It's such a peculiar premise. 'Hope to women' implies something is being provided. It's not. It's being removed, at best. What it does do is provide a heightened awareness and a quasi-legal framework around social and work harassment. It also allows a more level playing field where women can focus on the job rather than sticking out elbows in protection. It also allows for a workforce that respects boundaries more than it ever did."



So, hope?  
Don't know.  
Fairness and clearer navigation?  
Kinda.

As a CXO Search Consultant and a Women's Leadership Champion, I have been asked questions on whether fewer women will be hired by wary leaders in the workplace due to the #MeToo impact. I have always responded the same way: yes, so it may perhaps happen in the short term or as a knee-jerk reaction ("Let's all huddle in a bunker, let's play safe"). But this is both unlikely to continue and impossible to sustain. Women are 50 percent of the talent pool, so trying to hold back the necessary skills we need to get ahead in business makes no sense at all. However, I can see and relate to where it's coming from. I see the anxiety, and I also see the discomfort and confusion of navigating suddenly uncharted waters, from a lack of knowledge and from feeling hopelessly out of one's depth. But take it from me, this tsunami will ebb. Painful and catastrophic though it was, it will leave a cleaner ground to rebuild from.

I have heard different arguments, the most repetitive one being that it is going to kill all spontaneity and natural behavior, and create fear and avoidance, while people are going to be walking on eggshells

Moving on, the question is: What next? Time will make us a little more conversant with what to do and the processes to put in place. Companies, extremely careful about legal backlash and respectful of individuals, especially women's rights, will put in place a stronger set of processes, a more stringent framework to address the discomfort of an important work demographic. By doing so, they are rewriting the rules of business, and ensuring they are fair to both genders by defining clearly what is on and what is not.

Companies are also going to start defining acceptable behavior, so the former laissez faire "it's your business" or "let us not interfere" will not remain enshrined in the work fabric. I have heard different arguments, the most repetitive one being that it is going to kill all spontaneity and natural behavior, and create fear and avoidance, while people — particularly men — are going to be walking on eggshells.

Hmm... Possibly. I think about it for a minute and then I shrug. But

look at the upside. So what? A cleaner, less muddled, less cluttered place for our future workforce. That's surely worth giving up being handsy or a motor-mouth at work or outside, right?

Look at it this way. It had to happen; it could have slowly evolved to an equitable workplace but this just kick-started the movement on an accelerated war-footing. Workplaces evolve. So why are we overthinking it and letting it overwhelm us? Just as important is the fact that it's happened, so we didn't and we still don't have a choice.

The oft-quoted Bloomberg article Wall Street rule for the #MeToo Era — Avoid women at all costs summarized some of the fears people have: of wrong accusations, gender segregation, and of inadvertently impacting women's careers. The article states: "In this charged environment, the question is how the response to #MeToo might actually end up hurting women's progress. Given the male dominance in Wall Street's top jobs, one of the most pressing consequences for

women is the loss of male mentors who can help them climb the ladder.

*Is there a downside for women? "There aren't enough women in senior positions to bring along the next generation all by themselves," said Lisa Kaufman, chief executive officer of LaSalle Securities. "Advancement typically requires that someone at a senior level knows your work, gives you opportunities and is willing to champion you within the firm. It's hard for a relationship like that to develop if the senior person is unwilling to spend one-on-one time with a junior person." Men have to step up, she said, and "not let fear be a barrier."*

## Let's look at our own country. What needs to be done?

- A good hard look at what systems exist now. Look at this as an opportunity to set things right
- An understanding of what constitutes a toxic, pressured environment for women, or even men
- Collating best practices in the industry
- Communication that the #MeToo movement, whilst painful, was required for a strong cleanup of past inadvertent misogyny, paving the path for a more inclusive and collaborative framework
- Creating a clear policy of what will not be tolerated. Respond quickly and firmly. Establish boundaries, and never make exceptions. A zero-tolerance policy is possible — its hard but it needs to be done
- Critical evaluation by legal and HR heads of the framework and its gaps, and identification of a go-forward, both in letter and in spirit.
- Setting up clear written guidelines for all team members and stakeholders. Have training and sign off
- Ensuring the new system is communicated on a platform of respect, inclusion and mutuality, not fear or pressure
- Moving quickly towards a new post-#MeToo business-as-Usual workplace and organically creating a future workplace of empowered, motivated and fearless team members.

For those who stepped up and those who didn't. To bravery, belief, and to truth. Yes, #MeToo is a hard time for many people....for many who hurt within for years, for those who curled up in denial or pain, for those men who didn't know what they did was all that wrong. The harsh sunlight makes us wince, but things are so much clearer now.

These are going to be stringent, hard, painful times. It ain't easy, but it's happening. Stay the course, however awful. Let's hold the space. We owe the next generation a safer, more sanitized work environment.



Priya Chetty-Rajagopal is managing partner at Multiversal Advisory, and a civic and social evangelist

# BUILDING EMPATHY INTO AI FOR THE ENTERPRISE INFRASTRUCTURE

ENTERPRISES ARE NORMALLY CAUTIOUS TO IMPLEMENT NEW TECHNOLOGY, AND DEPLOYMENT OF ARTIFICIAL INTELLIGENCE (AI) SOLUTIONS IS NO DIFFERENT. IN FACT, 47 PERCENT OF BUSINESS EXECUTIVES SAY THEIR COMPANIES HAVE EMBEDDED AT LEAST ONE AI CAPABILITY IN THEIR BUSINESS PROCESSES, AND JUST 21 PERCENT SAY THEIR ORGANIZATIONS HAVE EMBEDDED AI IN SEVERAL PARTS OF THE BUSINESS, WHILE 30 PERCENT SAY THEY ARE PILOTING AI (MCKINSEY). THE KEY IS NOT TO LOOK AT AI AS YET ANOTHER TOOL OR PLATFORM BUT AN INTEGRAL PART OF THE PROCESS THAT WILL WORK CLOSER WITH HUMANS AND AID EMOTIONAL WELL-BEING.

RAJIV NAYAN — HEAD OF SALES, AMERICAS FROM DIGITATE, A VENTURE OF TATA CONSULTANCY SERVICES (TCS) THAT LAUNCHED IGNIO, ITS FLAGSHIP COGNITIVE AUTOMATION PLATFORM — ELABORATES IN THIS INTERVIEW.



**Artificial Intelligence (AI) has the potential to connect and contextualize individual scenarios that can drive automation at an unimagined level.** Just like a self-driving car, a self-learning AI platform can combine atomized skills with recognition and is proactive, adaptive, scalable, and self-healing.

**Q** | With the advent of AI, human capability has met AI's computing capability. However, can AI platforms feel the pulse and the pain in an ecosystem?

**A** | For long, CIOs and leaders have been talking about business pain points and using IT to resolve them. I would like to advocate for a scenario where a combinatorial approach to AI can demonstrate connected intelligence. Digital twins are often talked about where a digital replica of organizational processes and a digital representation of things are utilized to monitor, control, and analyze real world environments. These connected spaces generate connected intelligence that delivers value in a unique organizational context.

AI has the potential to connect and contextualize individual scenarios that can drive automation at an unimagined level. Just like a self-driving car, a self-learning AI platform can combine atomized skills with recognition and is proactive, adaptive, scalable, and self-healing. You can now teach an AI platform to have a bird's eye view of an ecosystem, and feel the pain and the pulse of a throbbing enterprise.

**Q** | Let's address the elephant in the room. People fear that livelihoods will be lost and existing jobs will be displaced at the hands of AI. What is your opinion on this downside of AI?

**A** | AI is becoming good at many human jobs — from software predicting a buyer's next purchase and robots on the assembly line to AI-assisted robotic surgery and more. While it has generated significant debate on the subject of AI's negative impact on society, it's no more about human versus machine but more about human and machine. A World Economic Report suggests that robots will displace 75 million jobs globally by 2022 but will create 133 million new ones. I see this as a division of labor between humans and machines. The machine's contribution to specific tasks is further expected to rise by 2022. As of 2018 an average of 71 percent of total task hours across 12 industries were performed by humans, compared to 29 percent by machines. By 2022 this number is expected to have shifted to 58 percent task hours performed by humans and 42 percent by machines. It is only fair to say that AI is the harbinger of greater opportunities.

**Q** | 'Artificial Empathy' (AE) is much talked about today. Where do you see the potential of AE in automation solutions?

**A** | Empathy in the AI context isn't about creating robots with feelings, creating platforms, engines, and bots that detect and respond to human emotions. Artificial empathy will play a crucial role across domains — be it in patient care, retail or customer support. It could even help prevent emotional burnout in various professions. Relief in operation fatigue is a minor benefit but the major benefit is that large organizations can shift from perennial firefighting mode to fire preventing, and ultimately to fire-proofing mode.

A cognitive automation platform can combine its insights not just based on historical data but its ability to traverse across the enterprise landscape and develop an understanding by association. So, it's a case of a cognitive platform mimicking human ingenuity in addition to its innate computing capability. The accuracy comes from a contextual intelligence that is gathered based on model-based, method-based, and rule-based understanding of the enterprise topology.

In fact, Japan created PARO, a furry seal, as a solution to its ageing population. PARO's artificial intelligence connected with tactile, light, audio, temperature and posture sensors enables it to perceive people and their environment. Today PARO cares for dementia patients — a job that typically requires a human touch. If you stroke PARO, it remembers your previous action and tries to repeat them. This therapeutic robot has empowered patients, making them the caregiver instead of the care recipient.

Furthermore, UNICEF, in association with MIT, is using AI to increase empathy among people and get them closer to the realities of those who suffer. AI is being used to learn the characteristics of a conflict-affected country and simulate how cities around the globe would look in the midst of a similar conflict. The idea is simply for AI to learn empathy and teach people to care.



Relief in operation fatigue is a minor benefit but the major benefit is that **large organizations can shift from perennial firefighting mode to fire preventing, and ultimately to fire proofing mode.**

**Q** | AI is making a fundamental shift in how we work and live. How do you think we could further leverage this human-machine collaboration to ease our lives?

**A** | The collaboration between humans and AI requires humans to first train machines to perform certain tasks, assess the outcomes of the tasks – particularly when the results are counterintuitive – and ensure responsible use of machines. Take for instance this global retail company in the US that sells consumer electronics, entertainment products, and home office products. It was facing intermittent internet connection, which hampered the store business and customer experience.



The Access Point Connection had several issues – varying from basic wiring to configuration. The connection interference constantly signalled errors and the IT operations team was tasked to manually handle these issues. The retailer deployed a cognitive automation solution to handle crisis directly, without the strenuous process of manually issuing tickets. At first, the automation solution pulled tickets from the service desk solution and performed automatic validation checks by fetching access point host, confirming port, and switching status.

The automation solution then resolved tickets in 11 seconds from an earlier turnaround time of 2.5 hours, making the company's IT system more resilient and trustworthy. 936 access point tickets were handled automatically and 368 hours per month were diverted into more productive work. It not only safeguarded the retailer from reputational loss but also instilled confidence among the consumers. AI today has the power to boost emotional awareness of the IT infrastructure.

AI can resolve issues faster than humans while it studies patterns and monitors scenarios to further take preventive measures. In this case, the automation solution helped shift the onus of system downtime and the issue of fixing it from the IT administrator to a machine, freeing up people to take on other important tasks.

**Q** | With this technological disruption becoming more human-centered, what possibilities are you excited about?

**A** | Between the irrational exuberance and the emotionally charged fears about AI, the answer lies right in the middle: a carefully-thought-out, calibrated approach to embracing AI-led disruption.

In the words of the vice-president of IT Operations at Canada's largest retail enterprise: "We need to develop a mindset of trusting the machine." It's a powerful combination blending intelligence and automation that will free us up to imagine unlimited possibilities. The relentless quest for efficiency and productivity in repetitive, automatable tasks frees up more time for reflecting, creating, and recreating a new reality at work.

Soon, people will need to work even more closely with intelligent machines. AI will open up a plethora of job

opportunities that don't even exist today. These jobs will require new kinds of skills and people will need to re-skill.

Japan is preparing itself for a sweeping change through its Society 5.0 concept – wherein the society has undergone four stages of historical development from hunter-gatherer to agrarian to industrial age, and information age. It is now entering the fifth stage – a super-smart digitized society that integrates cyber space and physical space. It's time we all worked towards improving the quality and outcome of human-to-machine interactions to deliver the maximum benefit to the society.



*Rajiv Nayan is Head of Sales for the Americas at Digitate*

# CHALLENGING TIMES FOR GLOBAL AUTO SECTOR

THE AUTOMOTIVE SECTOR ACROSS THE WORLD IS FACING HEADWINDS FROM SEVERAL DIRECTIONS, BUT THERE MAY BE SOON NEWS FOR FAR MORE CHEER

Vishnu Mathur



## Marketplace

As carmakers around the world begin the New Year, it is with a hope that **2019 will see a recovery in vehicle sales and a more stable business environment**

Globally, the auto sector is facing the heat of a rapidly realigning global trade regime: Increasing protection and geopolitical uncertainties have affected the outlook on global auto sales. In India, weak buyer sentiments caused by high fuel prices, rising interest rates, higher insurance costs and a liquidity crunch have taken a toll on sales during the third quarter of FY2019. So, what does the new year hold for the industry? Is there light at the end of the tunnel? And how do we reach there?

As carmakers around the world begin the New Year, it is with a hope that 2019 will see a recovery in vehicle sales and a more stable business environment. On the technology front, auto OEMs (original equipment manufacturers) are working on several fronts including digitization, autonomous driving, tighter emission norms and electric mobility.

Several EU countries have announced roadmaps for going fully electric: France is considering sales of all electric vehicles by 2040, and the UK is aspiring all

new cars being electric or ultra-low emission by 2040. Some OEMs have announced more ambitious plans of a switchover to 100 percent electric mobility in much lesser timeframes. The Society of Indian Automobile Manufacturers (SIAM) has laid down its own vision for achieving 40 percent electric vehicle (EV) penetration by 2030 and 100 percent EV penetration by 2047 – the centenary of India's independence. However, more on that later.

### Post-Dieselgate scenario

There are many more immediate challenges facing the industry. Dieselgate – Volkswagen's now-outed attempt to skirt diesel emission norms – has put a cloud on sales of diesel cars in Europe and the US, and the ripples are being felt all the way to India. India is now poised to enter into the super league of nations that will conform to Euro 6 emission norms. The Bharat Stage VI emission norms (equivalent to Euro 6) will start applying to all vehicles sold

and registered from April 1, 2020. At that level the emissions from petrol and diesel cars is reduced to a bare minimum and almost equalized with each other.

How will Dieselgate impact the sale of diesel vehicles after BS VI? Will the anti-diesel perception continue to manifest or will there be a more considered approach looking at the vastly reduced CO<sub>2</sub> emissions from diesel vehicles, which will enable India to meet its international commitments on reducing greenhouse gases? This question is all the more important because both the oil companies as well as the auto industry are spending more than Rs 1 lakh crore in achieving BS VI quality of fuel as well as bringing in compatible vehicle technology. This expenditure is 20 times more than the amount expected to be sanctioned by the Indian government for promoting electric mobility in the next two years under the eagerly awaited FAME 2 scheme.

The auto industry hopes that good sense will prevail and this huge investment being made by two of the biggest industries in the country – oil and auto – will not be made infructuous by antiquated perceptions on diesel. Secondly, internal combustion engine (ICE) technologies are not going to disappear anytime soon. By 2030, 40 percent of the industry can potentially be EVs. That leaves 60 percent of the that which will continue to be based on ICE technology.

Cars are still aspirational for our young population. While car usage patterns may change with ride-hailing options, **car and two-wheeler ownership need not necessarily reduce significantly in India due to their aspirational value**

### Growth metrics

With a normal compound annual growth rate (CAGR) of the industry, that will make the ICE market twice as big in 2030 as it is today. Therefore, continual improvements in emissions and efficiency of 60 percent of ICE vehicles could significantly impact energy security and therefore should not be underestimated. It would also be an important area to be promoted from a policy perspective.

At the Looking Ahead Conclave organized by SIAM in early January, the industry has predicted a tepid 2019 for sales of cars and SUVs with the most optimistic scenario being a 3-4 percent increase. The number was 5-6 percent for two or three-wheelers and 12-15 percent for commercial vehicles.

In some of the developed markets, cars no longer generate the passion they once did, and a brand like Apple may well be a stronger pull than car ownership for today's young buyer. Also, shared mobility is increasingly becoming a viable option without the attendant

hassles of ownership. How will this global trend play out in India?

Cars are still aspirational for our young population. While car usage patterns may change with ride-hailing options, car and two-wheeler ownership need not necessarily reduce significantly in India due to their aspirational value. In the absence of a competitive public transport infrastructure in most cities of the country, the need for convenient mobility and aspirations could very well drive the growth of the personal mobility industry for some more decades till other, more viable mobility options emerge. In megacities, personal vehicle usage could be optimized for addressing concerns related to congestion and environment.



### Electrification push

Above all, there is the impact of technology — electrification, in particular — that will be closely monitored as well as encouraged by governments globally. Studies have shown that buyers in India are willing to accept new technologies like EVs provided it makes economic sense and delivers performance comparable to ICE vehicles. This has implications for

OEMs' strategy, production mix and supply chain.

For starters, a supporting infrastructure for EVs continues to be a huge challenge along with the cost and performance disadvantage. As new battery technology evolves, both cost and performance would improve, which would make EVs a viable option.

Till such time, focus has to remain on creating market pull, charging infrastructure and an ecosystem for supporting electric mobility and ensuring that a planned transformation to EVs takes place in a gradual and controlled manner to avoid any kind of disruption that could be fatal for the industry, consumers as well for the huge employment and contribution to government revenues that this industry generates.

A slowing global economy could impact India's auto sector exports — vehicles as well as components — given that the EU, for example, accounts for 34 percent of Indian part-makers' business and 12 percent of vehicle exports. Agility in adjusting to market conditions, continuous productivity quality improvements and moving up the value chain, especially in embracing new technologies and entering new markets, would be the key to successful operations. SIAM is working very closely with the industry and the government

New mandatory emission norms and safety regulations becoming applicable in 2020 will add significant cost to the vehicles

in identifying and evolving customized strategies for penetrating such markets.

The Niti Aayog has laid down an ambitious target to achieve a \$1-trillion manufacturing economy by 2025-26. Due to its deep vertical and horizontal linkages, the auto industry is the driver of growth of the entire manufacturing sector. To achieve the \$1-trillion target, the auto sector will have to grow at a CAGR of 14 percent from today till the year 2024. Given that the actual CAGR of the industry over the last five years has been much lower at 7 percent, this will be a tall order unless a conducive policy environment is created for enabling sustained growth in this industry.

New mandatory emission norms and safety regulations becoming applicable in 2020 will add significant cost to the vehicles. For every rupee of cost added to the vehicle, up to Re 0.50-0.70 goes to the government as taxes, pushing up the prices and eroding the affordability of the vehicles.

The overall outlook

With high Central and state taxes on vehicles and equally high taxes on fuel, mobility is one of the most taxed activities in the country. It is inexplicable how trucks and buses, which are the backbone of public transport, and two-wheelers, which are an item of mass, middle-class consumption, can be considered “sin” goods and taxed at the penal

rate of 28 percent under the current Goods and Services Tax (GST) regime.

With the cost of vehicles poised to see a big increase by 2020 due to the new emission and safety norm, there is a golden opportunity for the Central government to consider moderating the taxation structure



on the industry to maintain the affordability of the vehicles with the aim of achieving a 14 percent CAGR for the industry till 2024. Therefore, there exists a strong case for reducing the GST base rate on the auto and auto-component industry to 18 percent.

Amidst the slowdown in the car sector, the commercial vehicle (CV) segment has much to cheer about. Sales in 2018 crossed the 1-million mark for the first time, propelled by sales of high tonnage tippers driven by government investments in road and highway construction, affordable housing

and irrigation, etc. With 2019 being an election year, it is expected that the government’s focus on infrastructure will continue. There have also been reports of state transport undertakings (STUs) planning to purchase buses for public transport. Both augur well for the CV segment.

Overall, the auto industry is headed for an exciting period that will see continued growth, higher technological content in the vehicles, and a safety and emission regulatory regime that will be on a par with global benchmarks as well as electric mobility. In fact, in the

two-wheeler sector, India will be applying the latest emission norms one year ahead of Europe, thus establishing global leadership in this segment.

The resilience of the auto sector has been tested in the past and is once again under the lens. Surely, the industry will once again reinforce its position as a dynamic sector of the economy that contributes hugely in developing the nation responsibly.



Vishnu Mathur, is the current director general of the Society of Indian Automobile Manufacturers

# HEAD-HEART-HAND: CSR IN 2019

HUMAN EXPERIENCE IS INSPIRING ORGANIZATIONS AROUND THE WORLD TO COMMIT TO SOCIETY AND THE ENVIRONMENT BY ALIGNING THEIR MISSION AND VISION AND THUS EMPOWERING LOCAL COMMUNITIES

Abhishek Ranjan



Global companies operating in different countries will **play an integral role in solving socioeconomic problems that cripple us today.**

Human experience is by far the greatest accelerator for social engineering. It is what inspired the great soul Mahatma Gandhi to organize a marathon 'Dandi March' (on the West coast of India) which etched itself in the golden history of India. The walk, which many may consider a simple act of walking, stirred up a momentum which was unimaginable, and it showed what mankind can accomplish with simple deeds. Any act done for a higher purpose without knowing what result it awaits is certainly risky. However, it is a risk worth taking because of the inner voice it is able to connect with.

By the inner voice, I don't mean your own conviction for the reasons that lead you to it. It implies touching the lives of millions of people who are more than just customers to organizations. These are lives that make us skip a heartbeat, these are lives that navigate the course of history.

Today, it is once again human experience that is inspiring organizations around the world to commit for the society and the environment. It goes without saying that global companies operating in different countries will play an integral role in solving socioeconomic problems that cripple us today. Take for example a trust of a giant global conglomerate that is changing its approach of giving grants to non-government organizations for social causes. Instead, it is getting directly involved in implementing welfare programs.

To take on the mantle of community drivers, global organizations will have to drive community welfare in 2019. Here are some trends that will shape corporate social responsibility (CSR) across the world in 2019.

## Convergence of the Profit and Non-profit World

*CSR has to be culture-oriented and not charity-oriented, and is definitely not an afterthought. It has to be built into a company's culture and ethos. In fact, in some US non-profit organizations, the CEO and CFO are board members of and claim to take a deep interest in the company's CSR work.*

Many countries are contemplating on making CSR mandatory or introducing strict compliance norms. In the midst of all these developments, the non-profit and profit world will converge and we will see more business leaders joining the social sector in both advisory and executive roles.

Corporates are already scaling non-government organizations (NGOs) or helping them in capacity-building, and this trend will see more takers in 2019. Corporations are also likely to reach out to non-profits to train/skill or reskill their workforce. This will provide an upstart for incubation centers and accelerator programs. The trend will lead us to more business schools providing support to CSR and Sustainability to shape the future "business leaders" by creating more opportunities. Let's contribute towards the convergence of the profit and non-profit world.

**Corporations are also likely to reach out to non-profits to train/skill or reskill their workforce.** This will provide an upstart for incubation centers and accelerator programs.

## Head-Heart-Hand

The year 2019 will witness the emergence of a new order in CSR decision-making. It will be less from the heart — driven by philanthropic quest alone, and more strategic. The whole idea of philanthropy will move towards innovative solutions for solving problems and bringing changes at scale. Through 2019, we will witness several projects that organizations will undertake with the non-profit partners. This is not Hand vs Money. It's about how Head (Mind), Heart (Money) and Hand (Time and Effort/Volunteering) — all the three Hs — will drive the change together.

Many CSR leaders have already started to believe in "What hands can do — money can't". Think of what Public Relations can do for instance when it comes to awareness campaigns for public health or how Research & Development is assisting, with technology-driven interventions, to improve the quality of primary education in India. Specific capabilities aside, each corporate function today impacts the outcome of CSR activities just as they shape the commercial successes of the organization.

Many years ago, a very small US company made a pledge to divert 1 percent of equity, 1 percent of product, 1 percent of profit, and 1 percent of employee time

Many CSR leaders have already started to believe in "What hands can do, money can't" ... **Innovation, social entrepreneurship and sustainability will emerge as the most popular hashtags.**

to charitable causes — a corporate philanthropy model pioneered by Salesforce, whose chairman & CEO Marc Benioff said: "Companies can do more than just make money, they can serve others." The corporate made that pledge publicly so that their customers and staff would hold them accountable. And it worked.

Twelve years later, the corporate has through a partnership with a foundation helped over 250,000 children in the developing world get an education they wouldn't otherwise have had access to. Meanwhile, employees took advantage of special paid leave days to volunteer thousands of hours with their favorite causes — from tutoring to affordable housing, and just about everything in between.

Companies will come forward with expertise, resources and money, and at the same time, they will seek new partnerships to that end in 2019. Innovation, social entrepreneurship and sustainability will emerge as the most popular hashtags in this period.



## Top Down Vs Bottoms Up

The nature of volunteering is changing and so are boardrooms around the world who are starting to feel the presence of social responsibility in their meeting agendas. A recent Deloitte survey on millennials found an astounding 85 percent of respondents believing in business success as more than just financial performance. For Generation X, volunteering was often about philanthropy. In comparison, many millennials are more hands-on. They want to give more than money, and contribute emotionally as they know more

about the cause to become emotionally invested in it.

Millennials want to do more than just participate in good but infrequent events like cleaning up local parks — they are in fact more interested in leveraging their intelligence and skills to make a difference by creating solutions for the future. They are, in effect, demanding opportunities to give back in a more lasting, more strategic way, and they are demanding corporate support for doing social good.

Millennials are more interested in leveraging their intelligence and skills to make a difference by creating solutions for the future.

## Invisible Stakeholders – the New Watchdogs

CSR management brings together a number of stakeholders across and beyond the organization. In a way, just as the organizations need layer upon layer of specific functionaries, so does a properly executed CSR activity.

In 2019, we will witness a similar level of sophisticated convergence arising in the sphere of CSR. Organizations will have to account for external stakeholders who will play critical roles in ensuring the success of their CSR initiatives. It is obvious: CSR and social media strategies will have to be real about programs and their impact.

To that effect, managing internal and external stakeholders is as much a balancing act as it is about a collective vision and mission. Social media has brought a new set of stakeholders in the fray, and we will soon see more scrutiny of CSR and environmental programs on social media as they set out to engage with a new set of invisible stakeholders.

## CSR – to Drive Responsible Branding

Responsible culture — not charity — is what you want to deliver at home. A study by Unilever in 2017, involving 20,000 adults across five countries, shows that a third of consumers choose to purchase from brands based on their social and environmental impact. This trend therefore applies to organizations who are talking about responsible culture. This trend will emerge as the core and the driving philosophy behind brands that engage with society with socially responsible products. Nielsen's Global Corporate Sustainability Report 2015 mentions that 66 percent of consumers are willing to spend more on a product if it comes from a sustainable brand.

CSR will actively contribute to the brand loyalty in 2019 and human impact will become its driving force. Not that it has been ignored thus far, but CSR will play a leading role in helping customers form opinions to make their purchase decisions in 2019. Moreover, your organization's public perception will actively drive sales and improve employees' morale. No doubt 2019 will emerge as the year of reckoning for investors, customers and employees.

Lastly, the ability of a familiar brand to deliver proven value will flow straight to the bottom line. It will change consumer preferences (Organic Food, Packaging Concerns, Ethical Sourcing), and drive companies to adopt the culture of being responsible as much as it is to be profitable.

Your journey, as a tourist-traveler-guide still counts. It will become a force to reckon with in the

small universe of things that you influence. Maybe, you do not want to be talked about, but let's ensure that the initiatives we undertake are talked about and they create the big impact which touches lives beyond figures. Organizations will emerge as the new source of team-building, camaraderie, and employee morale.

## CSR – Transforming Entities

We will see a lot of that happening in 2019 and more. Corporate social responsibility is seen as voluntary. We are also witnessing a positive trend with powerful CEOs pledging to give away parts of their fortunes for a social cause. However, this is just the tip of the iceberg, if we are to look at it objectively.

Nonetheless, organizations will matter more as a transformative

CSR will actively contribute to the brand loyalty in 2019 and human impact will become its driving force.

entity in 2019. Only by aligning your mission and vision with the larger cause of humanity will the new age organization ultimately help action CSR and not just dream it.

So, let's take the first step by empowering our local communities to turn around human experience!



Abhishek Ranjan is Global Head – Corporate Sustainability & Responsibility at Brillio - a US - headquartered global leader in digital transformation. He is among India's top 10 CSR Thought Leaders (Awarded in 2018 by CauseBecause), and has a vision to help 100,000 under-served young minds through STEM Education.



# THE GLOBAL WATER STRESS

THE WORLD IS PERILOUSLY HEADING TOWARDS WATER-RELATED CONFLICTS. IF LEFT UNRESOLVED, THIS COULD BE WORSE THAN ANY CONFLICT THE WORLD HAS SEEN YET.

T.R. Vivek

While water disputes haven't yet led to interstate wars, **there has been plenty of sub-national conflict. And they usually trigger violence.**

You don't have to be an expert on geo-strategy and global conflicts to know that it isn't oil, or data touted as the "new oil," that pose the greatest risk of triggering wars in the future. It's water. The humble H<sub>2</sub>O. No matter where you are in South Asia, you just have to look around to know why. For example, numerous studies have suggested that Bengaluru, India's Silicon Valley, will completely run out of water by 2025.

A recent report by Global Environment Change points to South Asia, China, South East Asia and the Tibetan Plateau as the pre-eminent hotspots for future water conflicts. This geographical area is home roughly to 45 percent of humanity. The most water-fragile among them are concentrated

in a strategically significant belt stretching from North Africa across the Middle East and Horn of Africa into Central, South, and East Asia.

According to Washington DC-based water conflict researchers Peter Engelke, Resident Senior Fellow with the Strategic Foresight Initiative at the Atlantic Council, and Russell Sticklor, a Research Fellow with the Stimson Environmental Security Program Water, stress is a precursor to conflict.

While water disputes haven't yet led to interstate wars, there has been plenty of sub-national conflict. And they usually trigger violence. *"Water stress acts as an accelerant, increasing the likelihood of conflict. Moreover, water scarcity-fueled instability can have dangerous security implications for wider geographic regions.*

*Take Syria as an example. Between 2006 and 2010, the country was hit hard by drought, which*

China is feeling the pinch. Beijing with 20 million people is reported to be caving in, **putting at risk the city's infrastructure built using billions of dollars because its underwater aquifers have been sucked dry.**

*wiped out rural livelihoods for many and caused significant internal displacement across the country. Internal displacement in turn helped stir a pot that boiled over into all-out civil war in Syria, eventually spreading to Iraq.*

*Over the last two years, the Islamic State group has viewed water access and control as a primary strategic objective of its campaign, and has commandeered hydroelectric dams, irrigation canals, reservoirs, pipelines, and other water infrastructure to cement territorial gains,"* they wrote in a 2015 essay in National Interest.

In 2012, Peru witnessed a wave of violent protests against US gold mining companies destroying local water resources. This forced the Peruvian government to impose a state of emergency three times in less than a year.

The ongoing civil war in Yemen has its roots in water. The country "which is almost entirely dependent

on groundwater" witnessed water riots in 2009 that led to the current conflagration. Jordan, which relies on aquifers as its only source of water, is even more water-stressed, now that more than a half-million Syrian refugees arrived.

About 30 percent of the Earth's freshwater supplies lie underground. But in Asia (including the Middle East), the groundwater too is depleting the fastest.

In his book *Water, Peace, and War*, Brahma Chellaney, a professor of strategic studies at Centre for Policy Research in Delhi, and an expert on water conflicts, contends that large corporations too have convinced politicians that commoditization is the ideal way to control wasteful use of water. But then a liter of bottled water requires 1.6 liters of water to produce. Water consumption of refineries is far greater than the quantity of gasoline or diesel fuel manufactured. Growing consumption of meat, biofuels and

nuclear power — all water-guzzlers — makes groundwater the world's most extracted source.

According to Chellaney, China having extensively contaminated its own major rivers through unbridled industrialization is now threatening the ecological viability of river systems tied to South and South East Asia in its bid to meet its thirst for water and energy.

"After building two dams upstream, China is building at least three more on the Mekong, stirring passions in Vietnam, Laos, Cambodia and Thailand. Several Chinese projects in west-central Tibet have a bearing on river-water flows into India, but Beijing is reluctant to share information," he warned writing in *The New York Times*.

China itself is feeling the pinch. Beijing with 20 million people is reported to be putting at risk the city's infrastructure built using billions of dollars because its

underwater aquifers have been sucked dry.

Pakistan accuses India of already waging a climatic war by drinking into its share of the waters of the Indus, flouting the World Bank-mediated Indus Water Treaty inked in 1960. Some of Asia's largest rivers — Indus, Ganga, Brahmaputra and Mekong — originate in the Tibetan Plateau. India fears that China's new water projects on these rivers will imperil the lives of 800 million people not just in India but also Bangladesh, Myanmar and Thailand.

The disparity of water resources in the region has led to nations and regions fortunate enough to be the upper riparian on a river system keen on overexploiting nature's benevolence. The quest for narrow self-interest hardens differences. It is the river systems and the people who depend on them suffering the most.

There are calls in India to link its northern and peninsular rivers without much thought about its long-term ecological perils. China wants to divert the waters of Brahmaputra towards its dry northern regions such as Xinjiang to accelerate their economic development.

There is not a state in India not engaged in a water dispute with its neighbors. The Cauvery water dispute between Karnataka and



Tamil Nadu dates back to more than 100 years; Karnataka and Andhra Pradesh bicker over the waters of Krishna; tiny Goa fights Karnataka over the waters of the Mahadayi river; in most parts of Maharashtra's parched Marathwada region, drinking water comes in special trains; Kerala and Tamil Nadu have been at loggerheads over the Mullaperiyar dam for long; Uttar Pradesh is unhappy with Uttarakhand for its dam-building spree on the Ganga that affects the flows in the river downstream.

Future availability of fresh water for human consumption under a changing world represents one of the main concerns of the current political debate. Water crises have been placed among the major risk factors for the coming decades by the Global Risks Perception Surveys

conducted by the World Economic Forum between 2015 and 2017. Increasing demographic pressure, environmental degradation, and climate change impacts on global water distribution represent the largest determinants of current and future water-related issues.

The 20th century witnessed an explosion of mega irrigation projects though dams which helped agriculture expand into drier areas. Even in India, farmers in the water-stressed regions such as Mandya and Marathwada have become addicted to water-intensive crops such as sugarcane. Punjab grows vast quantities of water-guzzling rice when it can easily focus on other equally valuable dry crops.

The availability of water enabled farmers the world over to diversify

The prevention of the imminent water wars has no easy solution. **To begin with, both consumers and governments need to realize that while renewable, water isn't inexhaustible.**

available on hydrocarbon reserves than water. Estimating the water that's left in aquifers is tougher than diving oil.

While all its users consider water a free resource, the sale of water-related equipment and industrialized extraction is a business worth nearly \$1 trillion. Most countries, including India, offer farmers giant subsidies such as free electricity to indiscriminately plunder scarce ground water.

The prevention of the imminent water wars has no easy solution. To begin with, both consumers and governments need to realize that while renewable, water isn't inexhaustible. While we can blame farmers and policymakers for growing water-guzzling cane,

maize and paddy in regions that are parched, it is the unceasing demand for sugar, rice and meat from the consumers that makes it profitable for them. Giving up on consumption that is mindless, and even conscious denial of certain dietary pleasures we have become used to, may be the best weapon in our arsenal to prevent water wars. But that weapon is also harder to make than bombs and missiles.

cropping patterns indiscriminately. But water alone doesn't determine agricultural outcomes. For instance, the farmers in Punjab use dangerous levels of soil-health-altering fertilizers to be able to grow rice. Elsewhere too, in China and the southern high plains of North America, the farmers' push to grow winter wheat and corn is straining water and land resources.

What adds to the problem is our lack of knowledge about our water resources. There is more data

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# IS THIS THE SUNSET OF THE OIL INDUSTRY?

VARIOUS FACTORS ARE AFFECTING THE PRICE, DEMAND  
AND USE OF OIL ACROSS THE WORLD, AND THAT IS WORTH  
LOOKING INTO

Kishore V Ramsubramonian





## The business of oil, like any commodity, is cyclical in nature

Ever since oil prices nosedived after the OPEC (Organization of the Petroleum Exporting Countries) meeting in Vienna on the fateful day of November 30, 2014, which ended inconclusive about any production cuts, this is the question that has been at the back of everyone's mind: Is this the sunset of the oil industry?

The business of oil, like any commodity, is cyclical in nature. However, this time it was unprecedented. The last fall of oil prices before that was after the financial crisis of September 2008, before which it was touching historic highs of \$130/barrel (bbl).

It plummeted to \$30-40, but in no less than three years was back to three digits, mainly because the underlying demand-supply dynamics weren't affected. It was more of a reflection of the short-term speculative trading going down in response to the financial market crisis.

Then the Arab Spring and the resultant regime changes in Tunisia, Libya and Egypt, followed by tensions in Syria, Iran and Yemen, helped oil prices remain well above the \$100/bbl mark until about mid-2014. Then the great slide began. So, what was happening this time that makes recovery of oil prices above \$75/bbl almost impossible?

## 1

### *The Great Shale Revolution and the supply glut*

When the George W Bush regime made fracking licenses free for all in the US, no one expected what was in store. Tight oil or shale oil production zoomed like never before and is above 5 million barrels of oil equivalents per day (boepd), taking US oil production to a historic high of 12 million boepd.

However, this was not the case a few years ago when the break-even price for shale oil was more than \$60/bbl. This is what made OPEC, led by the Saudi regime, go for unchecked production in 2014-16, in pursuit of capturing market share. After all, the overall market share of OPEC countries led by them came to about 30 percent of the world's oil supply at 96-98 million boepd during this time. They hoped shale production would close at lower oil prices.

The inventories soared as supply continued to exceed demand by almost 1.5 million boepd during this period and the prices hit rock bottom. But their calculations went wrong as the service providers and vendors in the oil industry, faced with closure of units and job losses, started slashing their prices as well and suddenly shale production was viable even at \$40/bbl and got revived.

On the other hand, oil-driven economies like Saudi Arabia had to drain their rainy-day reserve funds to bridge the deficit in their budget due to low oil prices finally forcing them to agree to first a production freeze with an informal understanding with Russia — the other major producer outside of OPEC — and then gradually implementing production cuts from 2017, which stabilized the oil prices around \$50/bbl. It is slowly recovering to \$60/bbl or more.

This made shale production even more attractive, and resulted in higher production once again pushing the prices down due to supply glut, and the cycle goes on with more production cuts by OPEC.

## 2

### *Changing geopolitics*

In the book *Edge of Eternity* by Ken Follett, there is this scene of the Hungarian Prime Minister Nemeth's meeting with Mikhail Gorbachev, the President of the USSR, where he asks him either to abandon the steel fence separating Hungary from Austria — the Iron Curtain that was broken and had people crossing over — or to renew it with funds from the Soviet Union.

Gorbachev tells him to renew it himself or abandon it as they can no longer fund it. He adds: "A decade ago, oil was \$40 a barrel and we could do anything. Now it is what, \$9? And we are broke." And what followed is now history.

If oil prices could break a superpower like the Soviet Union and practically end Communism in Europe, one can imagine how it has been shaping geopolitics ever since. Until 2014, the center of geopolitics was the Middle East. The Gulf war of 1990 by Saddam Hussein and later the Iraq war of 2003 by George W Bush were all fought on the backdrop of oil. However, this has changed since 2014.

If oil prices could break a superpower like the Soviet Union and practically end Communism in Europe, **one can imagine how it has been shaping geopolitics ever since**

The first sign of it was when the Barack Obama regime gave a cold shoulder to the Islamic State group uprising and the pullout from Iraq became a priority for the US. Since then, neither the brief thawing of US-Iran relations in 2016 once sanctions were lifted nor the further hardening of relations post November last year, the Saudi attacks on Houthi rebels in Yemen, or the Saudi-UAE-led isolation of Qatar have had any major impact on oil prices.

In fact, OPEC itself is undergoing major changes as Qatar has left the group and Iran is practically out. Contrast this with the impact Arab Spring had on oil prices just a few years before, and you will come to realize the lessening relevance of geopolitics of the Middle East on oil prices.

Even the relevance of Petrodollar — as it was called after former US secretary of state Henry Kissinger's famous deal with Saudis in the 1970s that made US dollar the common currency to trade oil — is changing now, with Russia and China having their own gas deals in their currency or India and Iran having rupee-payment arrangements for Iranian oil imports, and so on.

Consuming countries like India today have a better say on the oil markets, as evidenced by the Saudi oil minister acknowledging Prime Minister Narendra Modi's request to not further tighten production



cuts to ease oil prices, or India able to now negotiate better “Asia premiums” or long-term pricing for oil with the exporters. From being a victim of global geopolitics affecting oil prices, today India has become a major influencer on oil prices.

### 3

#### Diminishing demand

Ever since the great financial crisis of 2008, the world has been facing indifferent overall demand. The European Union (EU) for the most part of the last decade was either flat or in recession, with southern-EU countries like Greece, Italy and Spain facing their own crises.

Brexit has only confounded the equations between the partner countries. China is not any more the fastest-growing economy in the World. The US is recovering and touching 4 percent growth levels, but today is self-sufficient and even an exporter of oil and gas.

The Americas are in surplus of oil and gas that they can source locally to meet their demand fully. The US embargo on Venezuelan oil is making it even easier and cheaper for China and India to access it. Except for India, there is hardly any economy that is inspiring demand through growth.

The general thumb rule is that the demand growth for oil would be almost half the growth of the

GDP. This is further affected by more fuel-efficient automobiles and transportation means, better roads and infrastructure. This, combined with the glut in supply, has redefined what was known as “Peak Oil” a decade ago in terms of supply to demand as much that the demand is expected now to peak up to about 110 million boepd and thereafter either stagnate or fall. This puts pressure on restricting supply to hold prices in future.

### 4

#### Alternative fuels

Today, more than 25 percent of the world's energy needs is met by renewables, which again is a historic high. Solar power alone in 2018 was 113GW of installations with India at the No 2 position with 11 GW. With total installations of about 25+ GW, India has set itself an ambitious target to reach 175 GW by 2022.

The rapid growth and crashing unit prices of this source of energy

alone is going to disrupt the entire energy market in the coming days. Electric cars themselves pose a singular threat to the already-diminishing demand for oil in the coming days as the automobile industry is slowly but surely adjusting to this new reality. With more disruptions in technology accelerators, the ramifications of this are difficult to fathom at this point of time.

All these have set forth a total paradigm shift in the oil industry. While oil has lost its sheen compared to a decade ago, it isn't definitely the end of oil, as it will continue to be the major source of energy for a long time. It is perhaps the beginning of a new norm to which oil industry is trying to realign — something it wasn't used to until 2014.

Gone are the days when funds were splurged on capex on the back of windfall gains due to market rallies. Or big speculative buys. Today, each and every project is considered for its standalone viability before funds are burnt.

Gone are the days when funds were splurged on capex on the back of windfall gains due to market rallies. Or big speculative buys

The one good thing about oil is its long shelf life. Even if one doesn't consume fast enough or explore more, it won't expire. So, one could easily close the tap, or there is always another day to restart a project if it isn't worth pursuing now, thus extending the life of the field further. We don't have to worry about not having enough oil at least in our generation and next.

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# SCULPTING A BETTER LIFE

TIME IS RUNNING OUT FOR INDIA TO RECONFIGURE ITS APPROACH TO  
CREATE A MORE AGILE, ROBUST AND FUTURE-READY JOB MARKET.

Dr. Gayathri Vasudevan



Manjunath is a 28-year old cab driver in Bangalore who can communicate well in English and his native tongue Kannada and prefers to do the graveyard shift for Uber, starting at around 7 pm. By day, he works as an errand boy in a small travel company in the city. The Rs 30,000 he makes in a month is barely enough to take care of a family of six, including his aging parents. Yet he manages to keep smiling and dreams of sending his two children to a good private school and that someday they will find a nice white-collar job.

Sadly, and yet understandably, he does not realize two stark facts: His struggle fades in comparison to millions of youth like him who barely get through in life and that he is also the face of Indian economy's perilously large informal sector.

The answer to the problems of Manjunath (and millions like him) has eluded India's economic and political leaders since the last boat of the British Raj left the country more than seven decades ago.

## Is education the key?

How can we improve the income and quality of life of millions stuck in India's informal sector that accounts for 92 percent of the country's working population?

If we believe education can help, as Manjunath does for his own children, we have clearly not grasped the issue on hand. There is nothing wrong with seeking a good education for our children. But if it was the solution why are we still fighting the same old problem despite our national literacy level improving from 12 percent at the time of Independence to around 74 percent today? Or more pertinently, why is it that youth and the well-educated face the highest unemployment rates in the country, as highlighted in the 'State of Working India' report presented by the Azim Premji University in 2018?

The unsettling answer to these questions is in four words: white-collar job addiction. At the risk of over-simplifying a serious problem, let me put it this way: millions are willing to wait eternally for an office job than pick the nearest chisel they can find to sculpt a better life for themselves (literally and therefore figuratively).

Again at the risk of over-simplifying the solution, the answer is perhaps in two words – vocational skills.

**Skilling is a tool to energize our youth (and the broader working population) and has now become a critical agenda for the country.**

## The right skills – a critical tool

Skilling is a tool to energize our youth (and the broader working population) and has now become a critical agenda for the country.

Consider a mason who gets paid Rs 300 a day today for laying bricks. His earning potential is directly linked to how many bricks he can lay in a day. He can command a higher wage by either becoming more efficient or by producing a better quality of work. He can also earn more if he can provide additional value, say, as a painter. If he makes the transition to an entrepreneur i.e. as a 'contractor' who employs other masons, his potential to earn more improves significantly.

This is the fundamental premise on which skilling programs work – acquisition of the right skills

which the market values, leading to higher wages through employment or entrepreneurship. This was also the premise on which the Skill India campaign was launched in 2015 by Prime Minister Narendra Modi with a target to skill 400 million individuals by 2022 (when Independent India will turn 75) in order to make them more employable – a number equal to the combined population of the United States and the United Kingdom, counting every man, woman, and child in two of the world's most advanced economies.

India realized and accepted this challenge a little late, but it nevertheless did and among other things set up the National Skills Development Corporation (NSDC) in 2009 as a public-private partnership. From developing the framework to supporting skilling organizations with funding to bringing in the industry connect, NSDC was envisaged as a unique model to create a competitive workforce of global standards. Over the last decade, NSDC also started making the right moves towards standardization of job roles and levels through a national framework which is still in the process of implementation. These job levels are not based on any educational qualification but organized based on levels of knowledge, skills and aptitude outcomes which the learner must possess regardless of whether they were acquired through

formal, non-formal or informal learning.

Though several developed countries like Germany, Switzerland, Finland, South Korea, and Australia have a robust skilling ecosystem to prepare its youth for a vocation-based career, the route India has taken through Skill India Mission and a public-private partnership like NSDC to fund the private sector skilling institutions is quite unique in its own way.

As of January 2019, there are over 2000 job roles which have been defined by NSDC across 39 sectors which now have skilling programs and certifications available. The broader objective was to pave the way for predictability

of employment and income for informal workers and create a "career path" which is aspirational.

So why is this not happening?

The Qualification Packs (QPs) mapped to each industry-related job-role define and standardize knowledge, performance, attitude and skills needed for each job role. However, these qualification packs and occupational standards have not found significant resonance with the industry. Given that MSMEs are the largest employer across sectors, the recognition or adoption of QPs has been very low, and there is an obvious gap between what the job role requires and the skills provided.





## The German-Swiss model

A starting point to solve this could be for industry to “own” skills and treat this issue with the criticality it deserves. The vocational models in Germany and Switzerland are highly successful primarily because of the initiative and responsibility taken by the industry. It is mandatory in these countries for companies to invest in vocational skills and offer apprenticeships to students who do not wish to take the traditional higher education paths.

The German model is a combination of theory and training implanted in a real work setting. These are generally two-to-three-year-long courses and students divide their time between working in a company and learning theory at a vocational school. The companies provide training to students in nationally recognized occupations certified by either a chamber of commerce or crafts or trades. University graduates in Germany earn much higher salaries than regular workers without vocational education, thus making it one of the world’s most effective skilling ecosystem, both for the industry and the workers.

Switzerland too has a dual Vocational Education and Training (VET) Model that emphasizes skill development “from schooling age”. Most students start with vocational education programs and develop practical skills, attend college, find employment during this period, with an option to study further if they wish to. As they finish schooling, young students are already well-versed in few skills such as machine components, nurse patients, code applications etc, that help them to start earning a living as soon as they finish education.

The vocational models in Germany and Switzerland are highly successful primarily because of the initiative and responsibility taken by the industry.

We need to build a flexible system which allows an individual to move across regular and vocational career tracks while he or she can move in and out of the education system seamlessly.

## Challenges

As per the 2016 India Employment Report in 2011-12, 48.4 percent of the total workforce was “self-employed” (up by 0.4 points from 1999-2000), 30.2 percent was “casual labour”, 13 percent was “Regular Informal” and just 8 percent was “Regular Formal”. Skilling is languishing today precisely because only a small minority of the workforce is in the formal sector. Skilling will get a boost when the formal sector grows. While everyone understands that skills drive wages, there is a less understood reverse causation of higher wages (mandated by the government) stimulating skilling.

While in theory creating an army of micro-entrepreneurs will address our job-generation challenges, in practice this comes with its own set of challenges like lack of access to finance, social networks or access

to a predictable market. It requires an entire eco-system to be working on these multiple aspects to enable livelihoods. Over 50 percent MSMEs (Micro, Small & Medium Enterprises) in India are rural enterprises are in low-income states and 87 percent of these are self-financed. The Government of India’s Mudra Loan Scheme that provides a loan of up to Rs 10 lakh to micro-entrepreneurs at competitive interest rates was created to meet this specific need.

Industry 4.0 that is ushering in a new wave of automation at the workplace (including shop floors) will only accentuate the challenges in creating more jobs.

We need to build a flexible system which allows an individual to move across regular and vocational career tracks while he

or she can move in and out of the education system seamlessly. Skilling eco-systems need to be as agile in responding to these changes, and the onus is not just on government, but on the industry, educational institutions as well as individuals themselves to re-imagine a new future-focused model for skills.

As Pearson’s Geoffrey Makstutis puts it, perception is everything. The system will never succeed if we cannot make young people and parents recognize the value of a technical or vocational route — be it via a qualification or an apprenticeship.

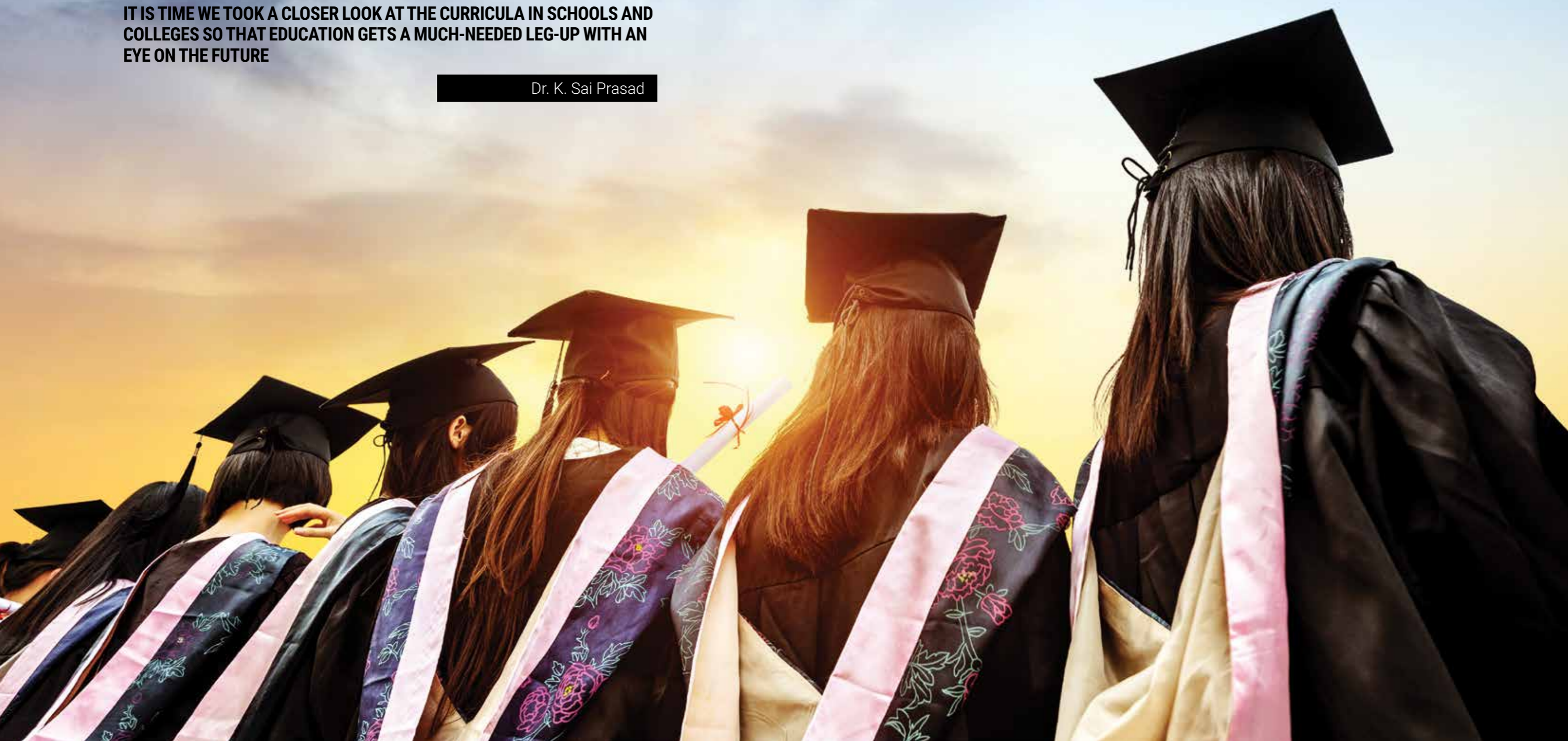
Gayathri Vasudevan is the Chief Executive Officer at Bangalore-based LabourNet Services India



# A LEG-UP FOR EDUCATION

IT IS TIME WE TOOK A CLOSER LOOK AT THE CURRICULA IN SCHOOLS AND COLLEGES SO THAT EDUCATION GETS A MUCH-NEEDED LEG-UP WITH AN EYE ON THE FUTURE

Dr. K. Sai Prasad



Educational models or institutions "created by" and specific to one colonizer may not give us the accurate sense of educational differences in these colonies. **Instead, we might want to consider geography as a better determinant.**

Among the origins of many firsts, we can trace the first steps in the formalization of childhood education in 18th-century Europe. It was the then Kingdom of Prussia that introduced a modern public education system designed to reach the entire population which was then widely copied across Europe and the United States during the 19th century.

Surely, India too couldn't stay untouched by these developments and the ancient civilization started to feel the impact of the industrial revolution brought in quickly, and sometimes unfairly, by its colonial influence.

What has gone unnoticed in the chapters of history is the story

of India's journey to excellence captured in Cartier-Bresson's 1963 photograph of the country's first rocket-launch. It makes for a gripping narrative on the state of education that has still not taken off with the times. It shows us how the world is inching towards scientific and technological excellence in the backdrop of humanity that is struggling to make ends meet.

We require education reforms in India to accomplish our cultural revolution against an ever-changing global landscape. Of course, the mission must succeed, and it is time we looked for answers by probing into some of the finest education givers of the world while looking to form a system that is unique to the needs of millions of citizens.

We have come a long way since Lord Macaulay's introduction of the formal English education system in India which till date remains a subject of many debates. To reason

his suggestions on necessary fund allocations, he said, "The money released by these steps should instead go to fund education in Western subjects, with English as the language of instruction." English has undoubtedly helped India a great deal in becoming a globally recognized powerhouse producing some of the brightest talent in all walks of life. However, the irony remains as India, despite finding itself in the company of a few nations who have explored space, still struggles with a crippled education system. We must therefore take a step back and take a look at the complicated inheritance into which we step as a post-colonial nation.

It will not be entirely wrong therefore to look at Lord Macaulay's legacy as being merely one that generated "a class of persons Indian in blood and color, but English in tastes, in opinions, in morals and in intellect," as described in his own words.

## Evolving landscape of the modern education era

Colonization was not restricted to the British alone. The French who colonized large parts of the Caribbean and several countries in North and West Africa, for instance, had their implementation and methods that produced a slightly different turn of events. In the French system, schools could not operate without government permission and had to employ certified teachers and follow a government curriculum. In this system, French was the only language of instruction unlike the colonial Indian system.

Educational models or institutions "created by" and specific to one colonizer may not give us the accurate sense of educational differences in these colonies. Instead, we might want to consider geography as a better determinant. There are interesting lessons to be drawn from Japan for instance. Despite the devastation that Japan suffered during the second world war, the country managed to deliver exemplary educational results. The success lies in the country's education system that successfully

imparts qualities demanded by the industrial world as well as Japanese society.

Japanese students are placed among the highest-ranked in the world in both in mathematics and in science according to international investigations such as those by the IEA (International Association for the Evaluation of Educational Achievement). Undoubtedly, its

unique education system has emerged as the driving force for economic, social, and cultural development of the country. The system specializes in producing skilled citizens who not only possess the basic knowledge and skills to respond to technical changes and innovations, but are disciplined, diligent, and possess the collaborative skills required to work in the new world.



The need of the hour is to create alternative collaborative models that include a **greater role for medicine, engineering and technology in our civilizational discourse.**

## Sailing through the winds of change

There is no denying that traditionally many education systems around the world have depended on conventional, humanities-based undergraduate curricula. All too often, arguments about the need to replace conventional learning with vocational skills suggest we dismantle them and instead invest in emerging technologies and alternative modes of intelligence. In such a scenario, how does curriculum reform really work? Another question often asked is whether humanities must solely take the mantle of moral reforms. The need of the hour is to create alternative collaborative models that include a greater role for medicine, engineering and technology in our civilizational discourse.

American history shows us there is more to learn and emulate when it comes to educational reforms. We cannot help but notice the unprecedented steps the country

took a 100 years ago by making secondary high school education mandatory for everyone. It was a massive leap forward which drove much of the economic boom the world witnessed after the second world war. The US has shown us what a modern educated market economy can achieve in more ways than one. The economy managed to attract the world's best talent to its higher education institutions. This inturn gave us some of the most innovative companies that are a part of our everyday lives today; many of these behemoths never existed some 10 years ago. However, the world is radically different today, and unfortunately the education system in the US still hasn't changed. The trend shows, there are nations on the rise that are out-educating, out-investing and out-innovating the most advanced global economies.

It presents a fantastic opportunity in that sense because we essentially live in a flat world

This calls for a comprehensive phased overhaul of the existing education system. **Such an overhaul will only be possible if good self-governance connects with curriculum reform.**

## Breaking free from our historical baggage

This calls for a comprehensive phased overhaul of the existing education system. Such an overhaul will only be possible if good self-governance connects with curriculum reform. Hence, once again we need to revisit a system that will not only to render us fit for the workplace but also leave behind a space that is worth inheriting: open-ended, competitive and enjoyable. The case of South Korea is noteworthy. Recognized as one of the most advanced countries in the world from a technology standpoint, it has a curriculum that is sharply

focused on the demands of the workplace and not stuck in some historical legacy.

Knowledge cannot entrap us but set us free. It cannot be founded on dogma that was established in a different context a hundred years ago. It must be rooted in the present with an eye on the future.

today. It's no longer a Detroit versus Tokyo versus Seoul for jobs. New competition is today emerging out of India and China and Singapore and everywhere else. That's the world where our kids — your kids — are going to grow up in, and ease of access to knowledge will become the single-most important denominator of success in the future.

Currently, at no level — be it early childhood, K-12, or higher education — are some of the world's most populous nations even featuring in the top 10 internationally. This situation is scary to say the least and it requires our immediate attention as a society.



**Dr. K. Sai Prasad is Dean, Commits Institute of Journalism and Mass Communication, Bangalore**

# TACKLING THE FIRST LAW OF HEALTH – HYGIENE

IF WE DO NOT ADDRESS THE WAY WE TREAT WATER RESOURCES, HYGIENE AND SANITATION, THE DAY IS NOT FAR WHEN WE ALONE WOULD REMAIN TO BE TREATED.

Satya Narayan Ghosh



## The Gateway

The reduction in diarrhea-related diseases alone can save \$11.6 billion in health treatment costs and can generate around \$5.6 billion in labor-spending

"We shall not defeat any of the infectious diseases that plague the developing world until we have also won the battle for safe drinking water, sanitation, and basic health care", said Kofi Annan. The seventh Secretary-General of the United Nations was absolutely right. If not managed comprehensively, it is going to be disastrous.

Today, one in nine people across the world lacks access to safe drinking water and one in three persons is deprived of improved sanitation services. On the contrary, the untreated waste generated from existing sanitation coverage pollutes water bodies, making them not only unsafe for potable use but also for the aquatic life and ecosystem required for economic growth of any country.

In a year, around a million people in low and middle-income countries die due to inadequate water, sanitation and hygiene services. The recent diarrheal outbreak in Botswana is an example of how many such countries are witnessing an analogous situation every year. Lack of access to clean water and sanitation, and unhealthy hygiene practices make millions of children vulnerable, threatening their survival, growth and development, which in turn puts the economic growth of any country at risk.

Girls leaving school due to lack of sanitation and menstrual hygiene facilities is a common phenomenon across the world, which stops them from acquiring knowledge and skills to contribute in the economic growth of the family and the country. Adolescent girls are especially affected due to lack of access to clean and private places to manage their menstrual hygiene

with privacy and dignity. UNESCO estimated that one in 10 girls in sub-Saharan Africa misses school during their menstrual cycle. Many girls drop out of school when they begin menstruating, which accounts for around 23 percent of schoolgoing girls in the country like India due to lack of sanitation and menstrual hygiene facilities.

Women and girls across rural areas spend hours every day collecting water and thus miss school. The absence of these basic facilities is much more in the marginalized communities. People who were deprived of these services in past decades remain excluded even today and are in a vicious cycle of diseases and poverty. The world can save around \$263 billion a year if these basic services are provided to communities in need globally.

The reduction in diarrhea-related diseases alone can save \$11.6 billion in health treatment costs and can generate around \$5.6 billion in labor-spending. Asia and Latin America have performed this task significantly over the past decades, but many countries in Africa are far off track in responding to this need.

It is often assumed – incorrectly – that the economic value of a resource, product and service is measured by the market price. However, my argument is that the natural items that are not sold in the market – like an ecosystem – have huge economic value.

An ecosystem is the backbone of livelihood and economic growth of any country wherein water and sanitation play a key role, and hence deserve to be considered as economic goods. Even today, people

## Unpolluted and continuous flow in rivers is of utmost importance for the economic growth and development of any country

across the globe who can least afford it pay a higher price for drinking water. This is especially true for low-income communities who have to spend a greater proportion of their income on water and sanitation, and are therefore unable to invest required amount in healthy causes and other basic needs such as food, housing and education.

I am hopeful of witnessing a significant improvement in access to safe drinking water and sanitation as well as conserving and protecting water resources if they are managed as economic goods. It is estimated that an investment of \$1 in water, sanitation and hygiene management can result in gaining up to \$34 through health and other benefits. Furthermore, improved access to sanitation alone can generate an additional 1,000 work-hours a year for a household, which accounts for around \$100 billion a year worldwide.

At the global level, failure to meet the sanitation target would have consequences of loss of around \$35 billion. In developing countries, the spending required to meet sanitation target is approximately \$142 billion which accounts for per

capita spending of \$28. It is also estimated that \$1 investment in sanitation can result in \$9.1 return globally.

The first Asian Nobel laureate Rabindranath Tagore was absolutely right as he said, "Education is nearly dry, and sanitation sucks its own thumb in despair". He also said that "suffering is the true wealth for such imperfect creatures as we are".

Sanitation also represents a vast market and substantial revenues if linked with entrepreneurs who can offer sanitation services such as construction of latrines, maintenance, and collection and treatment of excrete. Urine and excrete could be potentially used as fertilizer which can multiply the economic benefits in local area. Using waste for biogas production can significantly reduce the spending on electricity in local economy. Many international and national development players such as the Gates Foundation are making significant effort towards pioneering business models to address the sanitation crisis.

The risk of water contamination during storage and handling is more in households that lack improved

sanitation. In Asia and Africa, it is common for local water resources to not be used for drinking water supply due to contamination, caused by inadequate sanitation services and hygienic behavior. This leads to unnecessary investment in distant and expensive water sources for drinking water supply. Due to increase in water pollution, the cost of water treatment across different sectors that need clean water to function has gone up manifold in recent decades.

The world's population is hosted at river basins that deserve to be protected and conserved with strong focus. River systems are not only a source of livelihood but also the lifeline of any country. Unpolluted and continuous flow in rivers is of utmost importance for the economic growth and development of any country.

However, in recent decades, rivers are among the most polluted natural resources, thanks to inadequate sanitation and industrial wastewater management. The flow of untreated wastewater into rivers makes them uninhabitable for aquatic lives and thus disrupts the ecosystem.

The over-extraction of water by agriculture, industrial and other sectors results in rivers with no water for some months of the year. The longitudinal and vertical connectivity of the rivers is highly endangered due to piecemeal development of dams, hydropower projects and uncontrolled withdrawal of groundwater. On the other hand, the amount of effort towards harvesting rainwater and replenishing groundwater is far behind the requirement.

So, the question is how can these crises be addressed? How can the economic condition of the poor be improved through addressing the needs of water, sanitation and hygiene? My answer would be the management of water, sanitation and hygiene in a way that does not

make anyone suffer when getting access to it when needed, as well as a way that does not deteriorate the condition of the natural resources.

The effort for sanitation management should focus on keeping human beings separated from their excreta and dispose them safely in an environment-friendly manner. While the management of water should focus on keeping the local water resources unpolluted and perennial, and use stored water judiciously so future generation have access to it.

To achieve this, the driving force has to be the collective effort of citizens, governments, civil societies and private-sector players. Sustainability of the created sanitation and water infrastructure

## Change in hygienic behavior would significantly reduce the water and sanitation-related diseases among the poor

needs to be owned by the users or local communities with the support of the government and private-sector service providers.

Change in hygienic behavior would significantly reduce the water and sanitation-related diseases among poor. Meanwhile, environment-friendly water-use behavior in agriculture and the industrial sector would reduce the pressure on freshwater bodies especially rivers and groundwater. The recycling and reuse of wastewater is another approach to conserving freshwater bodies as well as reducing their pollution load.

These efforts can significantly reduce health expenditure, the time for fetching water, sustaining the existing infrastructure and reduction in investment for rebuilding them, and increase investment in education and livelihood for the poor.

Also, we need to change approaches that have failed to address these crises over decades.



# The Gateway

The need is to identify an approach that makes the users and sufferers the driver in this mission. What is that approach? For example, millions of youths in low or middle-income countries are on the lookout for employment opportunities. They might be doing something mechanical without getting paid, but are passionate about doing something creative. The approach lies here.

Train these youths, equip them with skills and connect them with communities as mechanics of water and sanitation systems. In most parts of the world, the water and sanitation systems remain down for a long time not because of lack of money but because of absence of service-providers responding on demand. This approach addresses both crises

simultaneously. More interestingly, these youths serve their own communities and get paid.

Similarly, how can the hygiene behavior of users be changed through an innovative method? This again needs switching from traditional approaches to an approach that helps people recall the times when they lost something due to unhealthy behavior. Hygiene education should be a reminder of incidents that communities witnessed in their lifetime and in their own locality, rather than a message for pushing people to realize the future impact of their behavior.

For example, the innovative hygiene education method for a community would be identifying the most recent diarrheal incident,

developing a play around it and performing it for the same people who lost their near and dear ones due to unhealthy behavior. This should change their behavior as no one wants to lose someone from their family or community again for same reason.

It is seen that hygiene education is often delivered by outsiders. My idea is to train people from the same target communities where the incident happened to deliver this education. Victims can retell their story much better, and discussion on the issue can last long after the play is over. In the end, it is all about how to approach the problem that needs to be eradicated.



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