

We are living in an era of ever accelerating pace of change. Past can no longer be projected into the future, which is faster than we realize. Alvin Toffler's Future Shock has multiplied manifold. Companies and Boards need clarity on three critical issues, namely a) Why is it more important than ever before to anticipate the future? Why do we need to metaphorically travel in a time machine to the future, b) Do we have a tool to travel to the future? Does it also help us to create or "invent" the future, and c) How is this tool relevant for Directors and Boards?

Earlier/ current strategies and experience have to make way for a new mindset and new paradigms. We need new insights and tools like the following, for understanding the drivers of change, and anticipating the future;

- 1. Exponential Technologies: Exponential/ Disruptive technologies are transforming and reshaping the world, and are leading to many of the current changes/ disruptions. Fusion of technologies is blurring the lines between the physical, digital, and biological spheres. Technological research is impacting life, societies, economies and the planet (environment, ecology) more and more. In another sign of times, much of this leading edge research is shifting from highly regarded and established academic institutions to technology giants like Google (Alphabet), Tesla etc. The research is also becoming increasingly aspirational and business-oriented (IPR creation for commercial exploitation being a major objective), with moonshots being talked of and attempted almost routinely. Technology has turboboosted both the rate of the change in the world, and the scale of that change.
- 2. Foresight: Foresight is the discipline for visualizing evidence/ data-based alternate plausible futures for the use of policy makers, to help them in designing effective policy/ strategic responses, using analytics and Artificial Intelligence. Foresight will be a real game changer in the corporate strategies for planning and decision-making,

replacing old obsolete processes with modern futuristic systems. It does not predict a single predetermined future. Instead, it helps you to understand possible futures, and decide and achieve your own future.

There is no doubt that the next decade will be filled with radical breakthroughs and world changing surprises. Every major industry on our planet is about to be completely disrupted and reimagined. For example, cost effective 3 D Printers can print jet engines to self-driving interactive vehicles, apartment complexes to shoes, crockery, furniture, body parts and so on. They can even print items in the Space Stations for the astronauts, hugely reducing the inventory and related costs. 3 D Printing, also called Additive Manufacturing, will end the need for supply chains, transportation networks, warehouses etc, and threatens the entire 12 trillion dollar manufacturing sector.

Directors/ Boards have to lead the process of transforming the companies. In the words of Kalanick, Cofounder Uber "Those who Make Magic See the Future before anyone else". To my mind, making magic is what leadership is all about. And, making magic for their companies is what Directors and Boards should strive to do. They need to guide the companies in understanding the forces shaping systems, anticipate surprises and adapt dynamically.

## Four Skills for Better Post COVID-19 World:

The World Economic Forum has brought out a Paper in August this year, on the skills required for a better future. The findings of the study are very relevant for guiding companies on the skills that they need to develop. Three of the four most important skills relate to the future:

**1. Future Literacy:** Become a "future literate" society, i.e. develop the skill that allows people to better imagine and make sense of the future.

- Systems Thinking: Develop a mindset to think, communicate and learn about systems to make the full patterns clearer, improve and share the understanding of problems and see how to face them effectively.
- **3. Anticipation:** This skill requires us to learn how to recognize possible futures and to use this augmented consciousness to shape our decisions and actions in the present.
- 4. Strategic Foresight: The disruptive changes in front of us will require choices and decisions and these will influence how the future world will evolve. Use Strategic Foresight for this to explore possible, plausible, probable and preferred futures.

and Probable Futures. With this understanding of the shape of things to come, you can also decide about your own "Preferred Future". This will enable you to use backcasting techniques (also seen as the strategy of coming back from the future) to achieve this "Preferred Future".

The cone of possibilities gives us a focused understanding of the possible futures. It allows for desirable scenarios to be driven intentionally by stimulating the events that would make it the most probable future. Similarly, undesirable scenarios may be curtailed by tackling the components that would generate it. This provides an excellent beginning point for agenda setting.

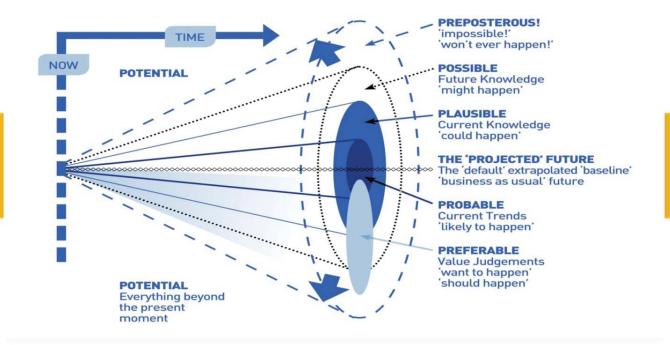


Figure 1: The Future Cone

### **The Futures Cone**

It is important to appreciate that the future is not fixed, that many futures are possible. Foresight gives us insights into these possible futures. Strategic Foresight looks at a range of futures in what we may call "The Futures Cone" (Figure 1)

The Projected Future is the one in which we assume that business will continue as usual, that past experience and data will continue to be valid. But it is obvious from the foregoing that this assumption is no truer. We have to look at different sets of assumptions, and look at other alternate futures. The age old practice of projecting the past into the future will not work anymore. Ability to unlearn and relearn will become increasingly more vital for organizations.

So we have to learn to see the other futures Possible, Plausible

#### **Foresight within the Policy Process**

Strategic Foresight has to be embedded in the policy process (Figure 2). 360 degree horizon scanning, identifying the weak signals and drivers of change, clarifying credible assumptions, developing possible scenarios, deciding your preferred future and backcasted strategies, and creating an implementation & learning loop are part of this system. The actual process requires a high degree of expertise. But policy makers do not need to be expert themselves. They are like the driver in the car, not the manufacturer or the mechanic. They only need to understand the potential of Foresight, decide to use it for policy and strategy formulation, and then engage experts for necessary support.

## **Agenda** setting Identifying emerging issues and policy challenges Scan for weak signals signs that this problem maybe **Problem** Learn evolving definition Clarify and test credible and vulnerable assumptions Explore how external change drivers are shaping the system **Implement Analysis** Develop scenarios to explore how the problem and its context could evolve Test strategies to ensure they are robust across a range of futures Consider **Decide** alternative Scan for or develop new approaches or strategies solutions

#### **How FORESIGHT works within the Policy Process**

Figure 2: Foresight in Policy Process

## Strategic Foresight for Directors/ Boards: Inventing Company's Future

With the above back drop, what does Strategic Foresight mean for Directors and Boards? Why do Futurists believe that it should become a must-have tool in their kit-box for policy planning and strategy formulation?

I see six distinct areas in which Foresight would work well for them. The first three relate to developing clear vision and insights about the future context and environment in which the companies will have to operate:-

- 1) **Future of World / India**: Diplomatic, political, economic, social, environmental future. This will provide a macro view of what is happening in the world and India, and an understanding of the mega trends.
- 2) **Future of Technology:** How exponential technologies & their convergence are developing? This is something which we need to understand far more. Exponential technologies and their convergence is already transforming the world in a way we could not have imagined 5 years back. And the future may well be something straight out of the science fiction.
- 3) **Future of Sector**: A better macro-level understanding of alternate futures and possible options for the sector would be possible.

Following are the next three areas in which Strategic Foresight is important for helping companies survive and prosper in the future, in which urgent decisions and action are required:-

- Future of Company: Decide Company's preferred future and use back-casting for reimagining & reshaping the company with future-driven Corporate Strategies. This has to become part of the DNA of the company, and part of the culture and mindset for strategy formulation.
- 2) **Future of Jobs**: Put in place proactive HR policies, factoring in the Future of Jobs. This actually has two parts. One is reimagining the work force and work place, and HR with new paradigms and skill-sets. The second is developing deep insights into the future of jobs. A study in US predicted that in 10 years a majority of today's students will be doing jobs which do not exist today, to solve problems that do not exist today, with technologies which also do not exist today.
- 3) **Future of Compliance**: Introduce AI based automatic fool proof compliance systems, both for regulatory compliances and internal controls.

#### **Building Foresight Awareness, Capacity and Ecosystem**

The question arises: where do you get the expert inputs for this? Surprisingly, there is very limited support available in the country. Unlike other countries, Governments and companies in India are not using Strategic Foresight significantly. The knowledge and expert infrastructure is poor, and we are yet to build a Foresight ecosystem.

A massive Foresight awareness and capacity building initiative is required to help "Invent" the India of our dreams. We need to set up institutionalized systems for tapping the power of disruptive technologies for transforming corporate and

governance, with appropriate arrangements for creating, sharing, disseminating relevant expertise/ knowledge. An "Indian Institute for Strategic Foresight "may be set up for building Foresight awareness, capacity and ecosystem. Meanwhile, corporate and thought leadership bodies like the Institute of Directors, industry associations etc may take steps for awareness building, individually and collectively. I would be happy to support by arranging requisite inputs from experts world-wide.

#### **Glimpses of the Future**

Future is uncertain. It will also depend on the decisions we take today. Following are a few of the possible futures envisaged by some of the world's leading futurists:-

#### 1) Futurist Anton Musgrave - The World in 2029:

"It is 2029, It's an amazing world, exciting, different, challenging, disruptive, many, many new opportunities, and many industries really struggling...other new exciting innovative players really grab the new opportunities of this world...This is a world with the human beings ubiquitously and seamlessly connected to one another, all 9 billion on the planet, through built-in wearable devices, through the portable handheld smart computing devices, or even implants in the body...This is a world where these connected individuals are also connected to every single object on this entire planet, and all of this real-life data information streaming at us, is allowing new solutions to mankind, solutions that address healthcare needs, education needs, energy and so forth. Healthcare advances allow us to look forward a life beyond 120 -130 years, ... Concept of retirement of our children and their children will all be forgotten...Jobs as we knew them 15 years ago have almost disappeared; permanent, regular monthly salaries are an unknown feature."

# 2) Theoretical Physicist Dr. Michio Kaku, New York University:

"In the coming years computer chip costs as little as penny...The computer will be everywhere and nowhere...including in our contact lenses, so we will put on our contact lenses and blink, we will go online...it means my students will blink and they will never need to memorize, this will revolutionize education, and then you feel sick and you will call ROBODOC to access the entire international sound medical advice almost free, this will revolutionize the medical establishment...ROBOLAWYER understand the law in any country in any language. Al industry will become bigger than automobile industry of today...next organ to be digitized is the brain, memories can now be uploaded and downloaded. This makes possible 'brainnet', which will be the next step in the evolution of the internet."

#### 3) Historian Yuval Noah Harari - Will the Future be Human:

"We will learn how to engineer bodies, and brains and minds, these will be the main products of the economy of the 21st century, not textiles, and vehicles and weapons...How exactly the

future masters of the planet will look like, this will be decided by the people who own the data, those who control the data control the future, not just the humanity but future of life itself, because today the data is the most important asset in the world...Data is replacing the machinery as the most important asset...you can really summarise 150 years of biological research since Charles Darwin in three words 'Organisms or Algorithms', this is the biggest insight of the modern life sciences, that organisms are algorithms, that the virus, bananas or humans are just biological algorithms, and we are learning to decipher these algorithms...if we are not careful it (algorithm) may give rise to digital dictatorship."

Following are a couple of other predictions about the future world drawn from different sources:

#### 1) **The World in 2030**

"What will the world look like in 2030? Germany issues a ban on selling cars that run on fossil fuels; surgeons reroute nerves to enable paralyzed people to use their hands; artificial blood produced from stem cells hits the market; cost of solar panels per watt equals 0.5 US dollars; over 13,166,667 electric vehicles sold globally; protein injections are used to reverse the symptoms of type 2 diabetes; flying cars of different brands hit the roads and begin to dominate the air; scientists develop the flu vaccines that protect against all strains; 3D printers are used to create fully functional organs."

#### 2) **Al in the Year 2030**

"Cloud-connected robots will be able to share data to accelerate learning. Low-cost 3D sensors will speed the development of perceptual technology, while advances in speech comprehension will enhance robots' interactions with humans. Robot arms in research labs today are likely to evolve into consumer devices around 2025...Al could automate the legwork of diagnostics by mining patient records and the scientific literature. This kind of digital assistant could allow doctors to focus on the human dimensions of care while using their intuition and experience to guide the process...By 2030 cities are likely to rely heavily on Al technologies to detect and predict crime. Automatic processing of CCTV and drone footage will make it possible to rapidly spot anomalous behaviour... Entertainment in 2030 will be interactive, personalized, and immeasurably more engaging than today."

### Conclusion

Industry, regulators and governments have to understand the symbiotic relationship between nature/ volume of business/ markets, profits and exports on the one hand, and the accelerating momentum towards a connected world with connected people and devices, driven by exponential technologies which are disrupting the way we live, work and transact business. They have to together reimagine and redesign the policies, regulation and business purpose /strategies/ ethics, for the benefit of the society and a better future.

## Key characteristics of successful companies of the future would include:

- A futurist mindset with Strategic Foresight woven into their DNA.
- 2. Deep understanding of exponential technologies and their convergence, and making them strong drivers of change/transformation.
- An abiding sense of social responsibility including commitment to sustainability, ethics, transparency and protecting privacy.
- 4. Effective organizational culture, systems, structures and processes, including for strategy formulation/imple mentation, communication and unleashing the creative potential of a happy workforce.

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