



## A Digital Transformation Leader

Life is digital now, period. We watch movies on OTT, our Covid shots have digital certificates, your calendar and zoom are all in your palm. Texting and WhatsApp have eliminated letter writing, We read books on kindle, we buy groceries on amazon, tesla is technology firm that has car as a product, flights have internet at 35000 ft up in the hair, body uses the camera rolls, its all digital pics.....all this and more thanks to Digital technologies.- None has to sell Digital anymore, what we all have to sell to ourselves and our partners are the use cases where we showcase the positive impact of Digital adoption in their area.

Anyone who needs to be convinced about the use of Digital in every aspect of life...is already a fossil. Technology is the underpinning of Digital. What used to be called technology few years ago..CRM, Applications, Dashboards, Networks, Servers etc...are all rolled into Digital now. Digital is almost synonym for "packaged" solution for a business context. In the package will be all the components of Technology.

The entire technology/Digital space is evolving so fast that even before the world has gotten used to living with the 2-D digital universe, Facebook has just announced the Metaverse...the 3-D version of the digital will start to hit the mainstream in 12-18 months. Trust me, it will happen faster than you know. For some of us who started the technology journey 30 years ago, it all just feels like yesterday when "www.something.com" was all the rage, this is early 90's. This was the first major explosion of technology that had hit our world.

For the first 40 years, it was all mainframe driven universe of computation that existed, then came the distributed computing universe of DEC, Microsoft, Apple of 80's (before it became the consumer company" and IBM).

90's was the era of World Wide Web and the whole e-business world concept, this gained momentum in the 2000's post Y2K fix. This is also the time that the Indian Tech industry was born...there is plenty to read up on that. Infy, TCS, Satyam, Cognizant, HCL were born here. All these firms created the Indian Tech revolution and became the bedrock of Indian GDP growth and knowledge Industry ecosystem. The export value of technology is about to hit USD 200 Billion !!

In between Nokia did create a massive communication revolution with its handsets and great telco network innovation driven by the Ma-bells in US, Lucent, Ericsson, Nokia, AT&T, Sprint etc. The telco innovation played a major role in the growth of Indian IT sector, because they lowered the cost of data transfer globally, so you could design the platform in US, develop it India and talk and deliver the product at a fraction of a cost of the early to mid 90's.and the the combination of Cloud and mobile has done the wonders for innovation in business modals.

Once the Apple figured out the iPhone and iPod, the world has never been the same. Google just exploded the knowledge transfer, and the the combination of Cloud and mobile has done the wonders for innovation in business modals. Since I am writing a short article, It's hard for me to go over all the other political, socio economic, Human Resource and financial innovation that has been unleashed thanks to Tech. Without these sectors keeping up on the innovation ladder with Technology, the massive adoption that we have seen would not have been possible.

The adoption of technology has changed everything that most of the business now operate. For example, Boeing 787 was first plane ever that went from CAD design to manufacturing on the assembly line without even one piece assembled on test in wind tunnel !!!...can you image what it did to the delivery cost and timeline of developing a brand new plane? All became possible due to high end computational capabilities that become available to Boeing through all the Tech firms. What is important in this story is the ability of Boeing to adopt the tech in its core business and engineering process and deliver the outcomes to employees, customers, share holders and humanity at large. Boeing's market cap has gone 6x in last two decades.

There are countless such examples of firms who stayed in the forefront of technology adoption and have created huge value for the ecosystem partners. For successful story there, there are stories of firms who failed to adopt technology innovation and were wiped out ... Blockbuster, Xerox, Polaroid, Compaq, Tower Records, General Motors (Tesla about to wipe them out), DEC, Sun Microsystems, Kodak etc.. These firms got wiped out because they were way behind in adopting the innovation that was being unleashed by Technology. When Technology hits the market, a successful firm is very good at disrupting its existing business modal by rolling the technology in its core process. This is called transformation.

if you don't transform yourself, market will force it on you, and market forced transformation is very painful. It's easy and nice to constantly transform yourself at a steady pace, and occasionally on steroids, every time you let a transformation opportunity go by.... you are increasing your odds of extinction.

Why I went into this history of tech driven evolution of humanity for the last 50 odd years is to convey one message, the rate of tech driven disruption has only increased over time. Previously it was the norm that new tech driven S-curve will show up every 10 years – this was the norm from mid 70's to mid 90's, since then s-curve cycles has constantly been shrinking. It stands at close to 5 years now. With AI driven modelling and analysis, this timeline will further shrink. This will put more and more pressure on larger firms, because it gets harder to be so nimble, and hence they will be forced to break into smaller firms. IBM has just done that, HP did it few years back. You will see lot more smaller service providers, and they will only grow to scale and size till they can be agile and nimble in their business and delivery modals to keep pace with the S-curve timelines. This is the new reality. You can't fight it, just adapt to it.

This frame of reference will be true for individuals too. All the experts and leaders who want to build great careers should constantly keep there Intellectual and Executional skills in top shape and current to deliver the value that customers will demand. You cannot rely on your age-old degree and field experience alone. Every participant to be a significant contributor should be a thought leader too. And thought leadership in any field is an ongoing exercise. To stay relevant is daily effort. So much of innovation is driven in every value chain, that there is no way you can stay relevant based on your 30-year-old degree. Those days are gone. Alphabet just announced yesterday that the neural network- based firm "Deep Mind" that they acquired in 2017, will get into drug discovery too. Based on their neural network- based AI engines they will be able to speed the new drug discovery process by 10x. drive the value.

It's the same revolution that you are seeing in Siri and Alexa...its all neural network based AI that will drive the innovation now, off course coupled with innovation on chip design and manufacturing. So, you should stay on top of latest and greatest, study and learn the new skills, new technology and most of all ability to make sharp decisions to

What's true for individuals is true for nations too. Look at what Japan and South Korea have achieved by being at the forefront of technology revolution. Look at Taiwan – If Taiwan was not integral part of semiconductor manufacturing supply chain, China would have gobbled it by now. What US is today and China is trying to be tomorrow – bits, bytes, semiconductors, technology, digital, AI etc has a lot to do. The future growth and progress of nations will be tied to digital literacy of the nation. The value creation of the past that was natural resources driven, will be digital resource driven in not-too-distant future, if its already not so.

So, what's in it for us? You all must be seeing the various digital platforms that we are rolling out in Rodic, we are trying to stay ahead of the Innovation curve. There is an article in the current issue from Ajit and Hema on this. The onus is on each one of us to put our minds to improve our ecosystem by leveraging the Digital capabilities. All you domain experts in various areas of infrastructure – roads, bridges, Rail, tunnel, Water management, Energy, Healthcare etc...need to constantly look at our business process holistically and look for ways to deliver outsize value by adopting latest in technology and really disrupting the way business is done... from Concept stage to post delivery maintenance. None of you should be shy or coy about it. Let's stay ahead of disruption cycle.

Rodic's size and reach give us tremendous advantage to be the front runner in delivering and capturing the value by disrupting the classical way of "Infrastructure Consulting" ...What's the new world of Infrastructure consulting in India will look like?

It's for all of us to drive. As we think through this...remember "Value" must be at the centre of it all...Value for the firm, clients, employees and all ecosystem partners. Reimagining our core processes by integrating all the digital technologies available to us, and then communicating the value, will yield massive positive outcomes for all stakeholders. Firm will become healthier financially and intellectually to solve bigger and more complex problems, lot more opportunities to deliver high value work will open up for our friends and colleagues at the firm, the quality of project will get better, ROI's on projects will improve, Clients will start to deliver higher quality projects faster, better and lower cost. Overall, smart and well thought out adoption of digital tools can be win-win for all participants in the infrastructure ecosystem.

One of the most important areas that will get better is "Environment". Sustainability concepts can be made integral to every project's planning and rollout, and Digital can play a massive role in this area. So let us all look for ways to be more productive, efficient and effective by leveraging the Digital capabilities that are available to us all now. Please share your thoughts, suggestions and ideas in the "Idea Portal". Let us all continue to innovate, adapt and deliver better value to all around us.- **Manish Tyagi, Executive Director Business Transformation Strategy & New Businesses.**

