



Confederation of Indian Industry
125 Years - Since 1895

August 2020

The Digital Journey in the New Normal

How are organizations
leveraging emerging
technologies in response to
COVID-19?

Knowledge Partner



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About Confederation of Indian Industry (CII)

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Foreword



We are living in unprecedented times of a global pandemic that is profoundly impacting our lives and businesses worldwide. In a CEO snap poll on 'COVID-19: Impact on Economy & Industry' that CII conducted in May 2020, a major proportion of the respondents felt that it will take more a year to achieve normalcy in the economy.

In the path to that normalcy, the pandemic is forcing businesses to adapt and reimagine. We are witnessing in real-time on how systems undergo a large-scale transformation - how governments, businesses, schools, cities, and communities adapt and make fundamental changes to existing ways of working using different technologies available.

Through this study, we have gathered the perspectives of industry leaders and policymakers to better understand how COVID-19 has impacted the Indian businesses and government operations and how they are leveraging emerging technologies to transform themselves.

The findings are encouraging for the future – despite causing an uncertain environment, the pandemic has proved to be an accelerator to the much-needed digital change in organizations. Organizations are heading towards an inclusive and sustainable digital transformation. And this digital mindset is here to stay.

I am thankful to our partner, itihaasa Research and Digital.

Chandrajit Banerjee
Director General
Confederation of Indian Industry

Foreword

We are delighted to author this important report on “The Digital Journey in the New Normal – How are organizations leveraging emerging technologies in response to COVID-19?”.

We set-up itihaasa Research and Digital (www.itihaasa.com) as a not-for-profit research organization that studies evolution of technology domains in India. We study domains like Information Technology (see our chronicle on the history of Indian IT), Artificial Intelligence and Brain Sciences (see our landscape studies of research in India in these domains).

We are already witness to the ubiquity of technology in our daily lives – it affects the way we acquire new knowledge, shop, socially interact or seek entertainment. During the pandemic, our exposure to the digital world has only increased.

Is this change here to stay? What is the long term impact of the pandemic on the adoption of technologies by organizations? How will they navigate the period of uncertainty and reimagine their businesses?

We are thankful to CII for inviting us to author this report. We are also thankful to the business leaders who shared their insights and perspectives with us.

We hope the ideas we present in this report provide a direction for your digital journey.



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1. Introduction

At the beginning of the year, no techno-business conversation would be complete without a reference to “digital transformation” or to an alphabet-soup of enabling technologies like AI (Artificial Intelligence), ML (Machine Learning), IoT (Internet of Things), AR / VR (Augment / Virtual Reality) and their like. And then the Covid-19 outbreak happened. The pandemic has significantly and dramatically impacted the functioning of the governments and businesses, and the lives of people, worldwide. Phrases like lock-down, social-distancing, remote-working and others have entered our everyday vocabulary.

Businesses globally have responded to this crisis with the intent of maintaining continuity of their operations and customer service. How relevant is digital in the current context? The key questions include:

1. What was the state of digital transformation in the world before the pandemic and how will it be in the new normal?
2. What are specific examples of organizations leveraging emerging technologies in response to Covid-19 and beyond?
3. What are the key challenges that business leaders face in this new digital journey?

To address these questions, the Confederation of Indian Industry (CII) organized a digital conference on ‘COVID-19: Emerging Technologies for Industrial and Societal Resilience and Growth’ in June 2020. We also conducted detailed interviews with select business leaders who oversee the digital transformation efforts in their organization.

2. State of Digital Transformation

2.1. The rapidly transforming digital era

In the book “Critical Path”, futurist and inventor Buckminster Fuller estimated that if we took all the knowledge that mankind had accumulated and transmitted by the year one CE as equal to one unit of knowledge, it probably took about 1500 years until the 16th century for that amount of knowledge to double. The next doubling of knowledge from two to four units was completed in 250 years by the mid-18th century. By the turn of the 20th century, 150 years later, human knowledge had doubled again to eight units. The speed at which knowledge doubled was getting faster and is now estimated between one and two years.

Organizations are in midst of this rapidly transforming digital era, the fourth industrial revolution, which is characterized by a fusion of technologies blurring the lines between the physical, digital, and biological domains. There is tremendous disruption at the edge and at the intersection of the emerging technology domains and economic activity¹.

Key emerging technologies powering digital transformation	Digital infrastructure and communications technologies like high-speed internet, ubiquitous connectivity, 5G networks, etc.
	AI and ML technologies for predictions and hyper-personalization.
	IoT and sensors which provide real-time data and control of machines such as the turbines, electric meters, personal fitness bands, etc.
	Robotics and drones that can automate plant operations, transport and logistics.
	Augmented reality and virtual reality that can revolutionize diverse fields like education and field service.
	Blockchain that has the potential to provide integrity and trust in data transactions.
	Several other technologies like renewable energy and smart grids, nanotechnology, 3D printing, quantum computing and so on that are profoundly impacting the world.

¹ Kris Gopalakrishnan, Speech on “Navigating Disruptions” at Manipal University, 2019

Many of these technologies are now entering what is called the second half of the technological chessboard². We are already seeing that with AI – computing power is growing fast pushing Moore’s Law to its limits and we have seen an explosion of AI-enabled applications in our lives. The Flatley’s Law governing DNA sequencing is being similarly pushed to its limits and we are going to see an avalanche of applications involving genetic sequencing like personalised medicine and targeted cures. We have the confluence of at least three technologies (mechanical automation, computing & communications and molecular biology) that have reached steep exponential scale. It is through innovative combination of these exponential technologies that we will discover solutions to humanity’s problems.

2.2. The unending arc of digital transformation

We believe that this arc of digital transformation of the world is unending and inevitable. The Covid-19 pandemic cannot stop the digital wheels from turning. If anything, the need for such a transformation has been accentuated across businesses and governments. The adage, attributed to Lenin – “There are decades when nothing happens, and then there are weeks when decades happen”, seems to be particularly relevant in these times.

There is a unanimous consensus among leaders that digital transformation is here to stay and that organizations, both governments and businesses, will continue to leverage emerging technologies in innovative manner to create and navigate the new normal.

Arun Goel, Secretary Department of Heavy Industries, Government of India, believes that an ‘Atmanirbhar Bharat’ will require indigenous technology and R&D. He states that there is a need for improvement of technology by the Indian manufacturing sector to become future resilient. He also states that design and development, testing and prototyping should be focused on to go for higher value addition. Accordingly, the Government is working on National level testing technologies and certification, regular review of policy, and faster tech development.

‘We need to augment manufacturing and the current pandemic has acted like a trigger for Industry 4.0. India will have Industry 2.0, 3.0 coexisting with Industry 4.0.’

- Arun Goel, Secretary, Department of Heavy Industries, Government of India

² Andrew McAfee and Erik Brynjolfsson, MIT, “The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies.”

‘The ability to digitally reimagine business in steady-state is critical. The digital and tech intensity will increase in the future.’

- Anant Maheshwari, President, Microsoft India

Anant Maheshwari, President Microsoft India, believes that there will be an acceleration of digital business transformation. Data science and machine learning will help rework supply chains. Technology will help discover the equilibrium between Work-From-Home and Work-From-Office. Cybersecurity and privacy will become even more important in the new normal. As we rebuild and reimagine the digital future, reskilling in digital skills will also become crucial.

Kiran Karnik, Chairman CII National Committee on Telecom & Broadband, believes that AI in medicine and testing for Covid-19, telemedicine, increased digital in manufacturing, and online education are some of the areas where emerging technologies will be leveraged. These will help India develop self-reliance. But how many in India, especially in the rural areas, are able to access these digital services? He states that an integration of emerging technologies and seamless communication system along with human skill sets are the key pillars to build a robust and inclusive digital infrastructure.

‘Digital Infrastructure such as safe, high speed broadband, Bharat Net, use of space infrastructure etc. and Human Infrastructure in the form of skill-sets and human abilities are both important.’

- Kiran Karnik, Chairman, CII National Committee on Telecom & Broadband

2.3. An inclusive and sustainable digital transformation

Another factor, besides the adoption of emerging technologies, that is held by the leaders in our study is the need for creating a digital transformation that is inclusive and sustainable. The pandemic has exposed quite starkly some divides inherent in our society – the urban-rural gap, employment mismatches, digital divide in the society etc. Kris Gopalakrishnan, Past

‘I propose five principles for social prosperity – inclusion, equity, sustainability, better life and resilience.’

- Kris Gopalakrishnan, Co-founder Infosys and Past President CII

President CII and Chairman CII Start-up Council and co-founder Infosys, believes that while things like online classes, telemedicine, digital laboratories and so on are on rise, the aspects like digital divide, connectivity, affordability etc. need to be addressed. Connectivity, change of business processes, training employees to work from home, discipline, and privacy metrics/ measurement of productivity will play important roles.

Gopichand Katragadda, Founder & CEO Myelin Foundry, articulates that Society 5.0 – an informational society that sees increasing adoption of cyber-physical systems is a given. To cater to the future population, a quantum leap is needed in the energy, power, sewer treatment, potable water or other such societal requirements. Apart from the critical sectors such as agriculture and healthcare, education will play an important role and there is a need to revamp the school syllabus to be more experimental.

Subra Suresh, President Nanyang Technological University Singapore, highlights that leapfrog technology is important for India. Globalization of the world will continue via digital rather than physical interactions. However, inequalities on some

‘For India to transform to Society 5.0, inequality and social differences would need to be addressed with utmost importance. While the urban population is adopting technology, there exists severe digital gap especially in the rural sector. So, have digital kiosks in all villages.’

- Jayesh Ranjan, Principal Secretary- Industries & Commerce Department and Information Technology, Electronics and Communications Department, Government of Telangana

‘Maximise technology while sustaining environment; harmonizing AI and human bias; communities coming together in this polarized world – India has a unique opportunity to lead on these fronts.’

- Subra Suresh, President, Nanyang Technological University Singapore

sections of society will grow (such as the digital divide) and we must take steps to mitigate these inequalities. The nature of individual freedom in the digital world will change. He believes that the psychological impact of fact that nearly 3 billion being locked up at one time needs to be analysed.

Other leaders too highlight a similar perspective. V K Saraswat, Member NITI Aayog, Government of India, mentions that human-centric technology is important in India and that we need to redefine role of tech in people’s lives and in industry. E V Ramana Reddy, Additional Chief Secretary,

Department of IT, BT and S&T, Department of Higher Education, Government of Karnataka, calls for joining hands to collaborate on a resilient India for a better tomorrow that provides the benefits of emerging technologies to all sections of the society. Rene Van Berkel, Regional Office in India, United Nations Industrial Development Organization (UNIDO), suggests that our future has to be circular, as we cannot continue to exhaust the natural resource, and we need to invest in a green transition.

Key Takeaways
- State of Digital Transformation

The arc of digital transformation of the world is unending and inevitable. The Covid-19 pandemic cannot stop the digital wheels from turning and turning quickly.

Organizations, both governments and businesses, will continue to leverage emerging technologies in innovative manner to create and navigate the new normal.

There is a need for creating a digital transformation that is inclusive and sustainable.

3. Organizations Leveraging Emerging Technologies

While the state of digital transformation provides a birds-eye perspective, what is happening in the digital trenches? A business leader in our study recounts a meme that has become quite popular – the question is who has been the biggest catalyst for digital transformation in the organization; and the choices for the answer include the CEO, the Chief Digital Officer and Covid-19; and the pandemic is chosen.

Different industries are responding to the pandemic in different ways. Some like the retail, higher education, insurance, etc. are increasing their on-line/digital play. Other industries like healthcare, pharmaceuticals, logistics, e-commerce, CPG, etc. are planning to expand their products and services³.

We heard from business leaders across industries like manufacturing, agriculture, healthcare, education and technology on the emerging digital strategy. They confirm an acceleration in their companies' digital strategy formulation and implementation. At the same time, they also highlight that there is more due-diligence / caution in terms of budget allocation to digital transformation.

Roshan Lal Tamak, Executive Director & CEO Sugar Business DCM Shriram, highlights how the agriculture sector has shown good resilience in times of the pandemic. Digital transactions and their volumes have increased substantially in case of input suppliers' organizations. Many startups have developed digital applications for farmers. Agriculture extension through e-learning is gaining traction and farmers have really benefitted. Digital messaging platforms like WhatsApp have been largely adopted by the farmers.

'Digital platforms are being used for price discovery, packaging, logistics & delivery, leading to volumes picking up substantially. SMS based supply chain has been used by the sugar mills and most of the supply chain remained uninterrupted.'

- Roshan Lal Tamak, Executive Director & CEO Sugar Business DCM Shriram

The following broad categories of applications of emerging technologies emerge from the study. In practise, these technologies are not leveraged just in isolation, but are often combined to deliver different solutions.

³ Three Proactive Response Strategies to COVID-19 Business Challenges by Michael Wade and Heidi Bjerkan in MIT Sloan Management Review, April 17, 2020

3.1. Technologies that help with Covid-19 response in a factory / office

A Chief Digital Officer at a manufacturing company shares how his team had to come up with a Covid-19 response and safety platform in short notice. They have leveraged video analytics techniques to detect if workers on the factory are wearing masks. Through a combination of a mobile app, GIS (Geographic Information System) technology and location-based services,

‘Digital through IoT, cyber-physical systems will make fundamental changes to manufacturing. The factory of tomorrow will be significantly different from factory of yesterday, and the difference between blue-collar and white-collar workers will disappear.’

- Pranjal Sharma, Economic Analyst, Advisor & Author of India Automated

they can create containment zones on the shop-floor and ensure required contact tracing in case of any infections.

A senior leader at a technology company mentions how they are augmenting their existing building management solution (primarily focused on energy management) with Covid-19 response solutions like thermal sensor with infrared for temperature checks, smart wristband (Bluetooth enabled) and contactless attendance systems, and offering an integrated dashboard. A digital leader at a hospital

says that QR-code enabled patient-registration is available, to provide a contactless alternate to the existing touch-screen enabled registration.

3.2. Technologies that help with teleworking, remote working and online collaboration

A senior leader at a technology company talks about how they leveraged collaboration technologies to connect thousands of employees the world over to create an open agile collaborative workspace. A senior leader at another technology firm highlights how chatbots / low-code or no-code applications have been quickly put together, especially in the context of healthcare service response. In a recent study⁴ of the impact of Covid-19 on the IT industry, it is found that we have reached a tipping point with respect to adoption of Work-From-Home (WFH) in Indian IT companies. In the longer run, they expect a hybrid model to emerge with about 25% WFH. In our study, a Chief Digital Officer at a manufacturing firm says that the transition between Work-From-Office to Work-From-Home has been seamless and productive so far. They are now developing a Collaboration Intensity Index to measure the level and effectiveness of online collaboration in their organization.

⁴ "Assessing the Impact of Covid-19 on IT Companies in India", itihaasa Research and Digital, June 2020, Available at <https://bit.ly/2BF1wUE>

Rajesh Nambiar, Chairman and President CIENA India, states that the current digital corporate world requires robust, secured and seamless connectivity system. Randeep Shekon, Chief Technology Officer Bharti Airtel, remarks how the pandemic has shown that communication infrastructure is not just needed for entertainment, it is needed for every infrastructure to work – healthcare agencies, Government agencies etc. coming together in the pandemic context. A digital leader highlights how the pandemic has forced a shedding of inertia to use technology – for instance, adoption of telemedicine and electronic medical records by doctors.

‘A key shift is towards adoption of the cloud platform for cross-border digital collaboration and communication to reboot the economy.’

- Anand Agarwal, Co-chair CII National Committee on Telecom and Broadband and Group CEO Sterlite Technologies

3.3. Technologies that augment cybersecurity and bring in resilience in the organization

As more work is shifting to the online world, the need for cybersecurity is becoming even more important. A senior leader at a technology company tells us about how they hardened the system at the end-points and strengthened the encryption of data being exchanged. Another

‘14 billion machines will be connected by 2021. Importance of employing the emerging technologies is the need of hour – security, data access, AI, Data science, 5G connected networks etc.’

- Margot James, Executive Chair, Warwick Manufacturing Group, UK

senior leader at a technology company talks about the trend towards software defined security. Cybersecurity has moved from detecting a threat to now predicting a threat by analysing web traffic patterns. A senior leader at a technology firm mentions organizations adopting cloud technologies for resilience. Cybersecurity is now viewed as a design principle and not as an afterthought and concepts like the ‘zero trust framework’ are being implemented to provide access to data based on identity and authorization.

A Chief Digital Officer at a manufacturing firm highlights the importance of ensuring security in the products they deliver – for instance, in ‘flashing over the air’ updates in their telematics solutions. A senior leader highlights how the emphasis in supply chain has changed from not just efficiencies but also to include resilience.

3.4. Technologies that help in automation of business processes.

A Chief Digital Officer at a manufacturing company says that he is now adopting an ‘AAA’ strategy – automation, AI and analytics. He is considering Robotic Process Automation (RPA) solutions to achieve shop-floor automation; data analytics to ‘squeeze the juice out of every asset’, for instance in analysis of fuel pilferage; and AI computer vision technologies for quality inspection solutions. Rajan Navani, Vice Chairman and Managing Director Jetline Group of Companies, says that robotics and automation are needed for contactless operations.

Shobana Kamineni, Past President CII and Vice-Chairperson Apollo Hospitals, says that in the post Covid-19 context, Apollo has got more than 5000 of their doctors online. There is a need to make healthcare more inclusive and ICUs are working for remote villages, working with Governments. She believes that home-care with digital to be the next biggest revolution.

‘Accelerating the use of online tele-consultation, merging of biology and technology, data science and AI in personalized healthcare will be the new changes.’

- Shobana Kamineni, Past President CII and Vice-Chairperson, Apollo Hospitals

3.5. Technologies that assist in online or digital learning in the organization

It is clear that with so much digital adoption in organizations, the workforce needs to be skilled appropriately. Dilip Sawhney, Co-Chair CII Smart Manufacturing Council and Managing Director Rockwell Automation India, says that if we leverage technology and have our processes reworked, we should also focus on reskilling and up-skilling of our employees. This will ensure that will be able to come out of the crisis well. A Chief Digital Officer mentions how they offered virtual training to over 11000 technicians and mechanics in the last few months – something which would traditionally have been conducted in physical classrooms. Sunjay Kapur, Co-Chair CII Manufacturing Council and Chairman Sona Comstar, believes that skilling is going to be the key driver in making the manufacturing sector resilient.

Anil D. Sahasrabudhe, Chairman All India Council for Technical Education (AICTE), believes that Covid-19 has forced the academic world to go digital and has given impetus to online education. By conducting online faculty development workshops, many more teachers should be trained . Personalised learning will be facilitated by automated learning systems.

‘Online education has seen explosive growth in the past 2-3 months. There has been a 650% usage increase in the world vis a vis last year; and a 1400% increase in usage in India.’

- Raghav Gupta, Managing Director - India and APAC, Coursera

**Key Takeaways -
Broad categories
of applications of
emerging
technologies**

Technologies that help with Covid-response in a factory / office.

Technologies that help with teleworking, remote working and online collaboration.

Technologies that augment cybersecurity and bring in resilience in the organization.

Technologies like AI, machine learning, Robotic Process Automation (RPA) tools that help in automation of business processes.

Technologies that assist in online or digital learning in the organization.

4. Key Challenges in the Digital Journey

The business leaders are clear in terms of adoption of digital and the broad direction of the digital transformation in the longer term. However, there exist several challenges to achieving this vision. Here, we present three salient challenges leaders articulated to us and highlight the important questions the leaders are asking themselves.

4.1. The problem of the “unknown unknown”

The road to economic recovery for businesses worldwide is paved with uncertainty and will take time. The uncertainties exist in terms of demand of products or services, supply chain efficiencies and resilience, job uncertainties in terms of potential layoffs and furloughs, geo-political uncertainties and so on. What is the role of leadership in managing the crisis situation and beyond? What partnerships are required to navigate in this period of uncertainty? How to find the balance between the physical and virtual business models?

‘How to reinvent the business and yet maintain or improve customer and employee experience?’

Once the situation reaches a new normal, will business practices revert to how they were in earlier times, or will the new operating procedures and digital mindset sustain?

4.2. The problem of the constrained budget

With so much uncertainty, it is understandable that business leaders have lesser discretionary budgets to spend on digital transformation. How to choose the right business cases for

‘How to allocate budgets between run-the-business, change-the-business and transform-the-business initiatives?’

leveraging emerging technologies. Some digital leaders talk about the dilemma they are facing in terms of allocating budgets between user-experience / convenience and enhanced security. Organizations are re-examining their cost structures, preferring to shift from a ‘capex to an opex’ model. Can frugal innovation models be developed? Is there a way for these projects to pay for themselves? Some digital

leaders mention their efforts to monetize their data, offer new services (such as training) to external customers to generate newer revenue streams.

4.3. The problem of the digital skill gap

With greater adoption of digital technologies into the organization, there is a greater need to build the digital dexterity of its employees. Organizations are discovering a skill gap – not just for their technical teams (in terms of skillsets for newer digital technologies like AI, cybersecurity etc.), but across the organization and in different functions (for example, a technician or a nurse should be dexterous with AR / VR technology for remote machine inspections / getting trained on how to find a vein and draw blood). How to develop a platform to hire specialized talent on-demand, say through the gig-economy? As organizations reach newer customers, they encounter a digital skill divide that exists in the population. How can the next billion consume digital services in an intuitive and easy manner?

‘How to skill-up employees?’

‘How to overcome the digital divide among customers?’

Each organization has to address these challenges in a manner that is contextual to their company and industry. The adage, “execution is strategy”, rings never truer than now.

People whose inputs are featured in the report

(In alphabetical order)

1. Anand Agarwal, Co-chair CII National Committee on Telecom and Broadband and Group CEO Sterlite Technologies
2. Anant Maheshwari, President Microsoft India
3. Anil D. Sahasrabudhe, Chairman All India Council for Technical Education (AICTE)
4. Arun Goel, Secretary Department of Heavy Industries, Government of India
5. Arvind Sivaramakrishnan, Group CIO, Apollo Hospitals Enterprise
6. Dilip Sawhney, Co-Chair CII Smart Manufacturing Council and Managing Director Rockwell Automation India
7. E V Ramana Reddy, Additional Chief Secretary, Department of IT, BT and S&T, Department of Higher Education, Government of Karnataka
8. Gopichand Katragadda, Founder & CEO Myelin Foundry
9. Jayesh Ranjan, Principal Secretary-Industries & Commerce Department and Information Technology, Electronics and Communications Department, Government of Telangana
10. Kiran Karnik, Chairman CII National Committee on Telecom & Broadband
11. Kris Gopalakrishnan, Past President CII and Chairman CII Start-up Council and co-founder Infosys
12. Margot James, Executive Chair, Warwick Manufacturing Group, UK
13. Pranjal Sharma, Economic Analyst, Advisor & Author of India Automated
14. Raghav Gupta, Managing Director - India and APAC, Coursera
15. Rajan Navani, Vice Chairman and Managing Director Jetline Group of Companies
16. Rajesh Nambiar, Chairman and President CIENA India
17. Randeep Shekon, Chief Technology Officer Bharti Airtel
18. Ranjeet Goswami, Country Manager for Corporate Affairs, Tata Consultancy Services

19. Rene Van Berkel, Regional Office in India, United Nations Industrial Development Organization (UNIDO)
20. Rohini Srivathsa National Technology Officer, Microsoft India
21. Roshan Lal Tamak, Executive Director & CEO Sugar Business DCM Shriram
22. Sarajit Jha, Chief Business Transformation & Digital Solutions, Tata Steel
23. Shobana Kamineni, Past President CII and Vice-Chairperson Apollo Hospitals
24. Subra Suresh, President Nanyang Technological University Singapore
25. Sunil David, Regional Director, IoT, India, and ASEAN, AT&T Global Network Services India
26. Sunjay Kapur, Co-Chair CII Manufacturing Council and Chairman Sona Comstar
27. V K Saraswat, Member NITI Aayog, Government of India
28. Venkatesh Natarajan, Chief Digital Officer, Ashok Leyland



itihaasa Research and Digital

itihaasa Research and Digital (www.itihaasa.com) is a not-for-profit, Section 8 company that studies the evolution of technology and business domains in India. Kris Gopalakrishnan, co-founder of Infosys, is its founder and Chairman.

itihaasa's flagship project is chronicling the six decades of the evolution of the history of Indian IT – a digital chronicle that is available as a mobile app on Apple & Google and as a chatbot.

itihaasa has published research reports on the following topics:

- Landscape of AI/ML Research in India
- Landscape of Brain Research in India
- Reimagining India in 2030
- Emerging Technologies in e-Governance
- Leapfrogging into the New Future with Exponential Technologies
- The Digital Journey in the New Normal – How are organizations leveraging emerging technologies in response to COVID-19?

You can reach out to Krishnan Narayanan (krishnan@itihaasa.com) and N. Dayasindhu (dayasindhu@itihaasa.com) for any queries / feedback on the study.



Confederation of Indian Industry
125 Years - Since 1895

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering industry, Government, and civil society, through advisory and consultative processes.

For 125 years, CII has been working on shaping India's development journey and, this year, more than ever before, it will continue to proactively transform Indian industry's engagement in national development. CII engages closely with Government on policy issues and interfaces with thought leaders to enhance efficiency, competitiveness and business opportunities for industry through a wide portfolio of specialized services and strategic global linkages.

With the Theme for 2020-21 as Building India for a New World: Lives, Livelihood, Growth, CII will work with Government and industry to bring back growth to the economy and mitigate the enormous human cost of the pandemic by protecting jobs and livelihoods.

India's premier business association has more than 9100 members, from the private as well as public sectors, and an indirect membership of over 300,000 enterprises from around 288 national and regional sectoral industry bodies. With 68 offices, including 9 Centres of Excellence in India, and 10 overseas offices in Australia, China, Egypt, France, Germany, Indonesia, Singapore, UAE, UK, and USA, as well as institutional partnerships with 394 counterpart organizations in 133 countries, CII serves as a reference point for Indian industry and the international business community.

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