

Asia-Pacific I | 2019

Connect-World

The Magazine that Provides Thought Leadership for ICT Decision Makers

www.connect-world.com

Where is Cybersecurity Headed in 2019?

Manoranjan 'Mao' Mohapatra,
CEO, Mahindra Comviva





The growth of AI in India and its implication across various industries

by Manoranjan 'Mao' Mohapatra, CEO, Mahindra Comviva

India's current digital narrative in business and commerce and e-governance, have placed it in a favourable position to utilize transformative power of digital technologies for the betterment of society; at a scale that was unthinkable before. Such has been the strength of India's digital narrative that we don't have to think twice before using our smartphones today. Flashback to the 90's when getting a mobile connection used to take months. Similarly, hark back to the

90's, when it was common to see people standing in queue for hours for cashing a cheque, or paying utility bills.

Manoranjan 'Mao' Mohapatra, Chief Executive Officer, Mahindra Comviva

Mao's career has been dedicated to the development and deployment of innovative software communications solutions in rapidly growing markets, transforming high potential businesses into true world-beating organizations. His track record for enabling innovation, his deep knowledge of telecom related technology and his wealth of experience in a range of operational and marketing roles provide a strong leadership base from which to enhance Mahindra Comviva's position as the leading provider of integrated VAS solutions in emerging markets globally.

Prior to joining Mahindra Comviva, Mao was President and COO at Aricent, where he enjoyed a 15 year career and was instrumental in building the company from a relative start up to a globally recognized brand, with over US\$300 million in revenues. At Aricent, Mao led teams in the areas of R&D, product management, operations, and sales and marketing, gaining hands-on experience and in-depth knowledge of the software and communications industries and honing his leadership talent.

Before moving to Aricent, Mao was a core member of the Center for Development of Telematics (CDOT), where he made a significant contribution to research and development in telecom switching, and where he began his career.

Mao has been recognized with prestigious 'Distinguished Fellow' award by The Institute of Directors (IOD) in the year 2012 and in 2013 he was named "India's Top 20 CEO 2013" by Haryana IT, Telecom, and Enabled industries Confederation (HITEC) India for spearheading the company's growth as an industry leader and for setting benchmarks in the mobile VAS industry.

Mao holds a Bachelors degree in Electronics and Electrical Engineering from the Birla Institute of Technology and Science, Pilani.

Today, we are living in the second Machine age, identified by the transformative power of digital technologies, like AI and Machine Intelligence. Digital technologies have enhanced our brain power in the same way that the steam engine enhanced muscle power during the industrial revolution. They have allowed us to overcome many limitations rapidly and opened new frontiers at unprecedented speed. The Second Machine era will be better for the simple reason that, thanks to the power of digital technologies, we will be able to create better societies, while treading lightly on our resources.

India's current digital narrative in business and commerce and e-governance, have placed it in a favourable position to utilize transformative power of digital technologies for the betterment of society; at a scale that was unthinkable before. Such has been

the strength of India's digital narrative that we don't have to think twice before using our smartphones today. Flashback to the 90's when getting a mobile connection used to take months. Similarly, hark back to the 90's, when it was common to see people standing in queue for hours for cashing a cheque, or paying utility bills.

In today's digitized India, machine learning is allowing banks to better one-to-one customer engagements with personalized service offerings that are based on deep insights into the customer's transactional history and behaviour. Banks are rolling out intelligent chat-bots running on machine learning algorithms for deeper and meaningful customer engagement round the clock. In telecom, AI and machine learning are helping operators to keep up with customer demand by ensuring the health of the networks through predictive

analytics and pre-emptive care. On the governance front, India has built a strong digital India narrative through various programs like digital India, Make in India, Skill India, and India Stack. India's unique identity program, Aadhaar is unprecedented in scale and ambition, as it brings India's million within the ambit of the digital revolution.

All these developments have paved the way for the next transformative leap in governance through AI. In this regard, it is good to see the government of India's Niti Ayog spearheading a nationwide AI Program based on research, with a strong India based focus, taking cue from countries like China, which have developed indigenous AI capabilities for tackling challenges that are unique to their country. One such challenge is language. When humans converse with each other, they are constantly looking for

verbal as well as non-verbal cues for drawing inferences on what the other is saying. What if machines could draw similar inferences from human speech? It would open thousands of usage cases in fields like business, finance, health, as machines would be in a better position to interpret verbal and non-verbal cues more accurately. In one such instance of building indigenous AI capabilities, the Chinese giant Baidu is helping machines in understanding the intricacies of Mandarin, China's most spoken language. Similarly, India, with its multitude of languages can create a neural language network, addressing India and Bharat simultaneously. For example, in Agriculture, an indigenous neural language network would add more teeth to The Department of Agriculture Cooperation and Farmers Welfare's Kisan Call Centres by responding to farmers instantly and in the language of their choice. The Neural Network can act as the brains, with AI linking various information like soil report from government agencies, weather updates, susceptibility to pests, and thus providing the farmer with the most updated information to improve their productivity. Similarly, India's neural language network could power chat or voice based services in many industries.

In the education sector, AI can help India in two fronts. It can personalize the learning methodology according to each child's learning capabilities, and thus help in maximising their potential. At Arizona State University, an adaptive learning program helps student who are struggling with math. Pass percentage has improved from 66 percent to 75 %, and dropout rates are down by 7%. Similarly, An EU project, called iTalk2Learn is developing an open source program for helping primary school students to learn mathematics. In India, AI can help to identify the girls who are at risk of dropping out and articulate measures for bringing them back to the fold of learning.

According to the World Bank, Power theft diminishes India's GDP by 1.5 percentage points, keeping millions of households in the dark. Similarly, a research by NDTV estimates that 40% of the electricity in India is unpaid. Utility companies could use Machine Learning to flag deviances in consumption and electricity payment, reducing thefts. In Hungary, machine learning was able to reduce electricity theft by almost 30% by studying usage patterns and payment history, and red flagging deviances. AI could also create advance usage cases, like giving back to the grid. In the United States, Deep mind is working with National Grid to streamline power

consumption through dynamic pricing, as well as allowing individuals to contribute to the grid. Similarly, in health, AI could address the many challenges in India's health care system. It could help health care professionals to provide better health care at reduced costs, reduce waiting time for appointments, while optimizing present resources and infrastructure for optimum effect.

Finally, in an AI powered future of tomorrow, MIT Review talks about products that rewire and reconfigure themselves, just like an Amoeba changes according to its immediate surroundings for optimum effect. One can immediately relate this to shape shifting cars in the movie Transformer. However, on a more practical level, this rewiring and reconfiguration could be in the form of a car that drives to where the demand is, or sensors that trigger automatic and irrevocable fines through block-chain payments.

India's AI story is not without its challenges. In order to create a sustainable system for AI, India will have to tackle these challenges head on. Of late, India's biometric based national identity system has been in the news, for all the wrong reasons. The government should strive to create a favourable narrative, if its wants to leverage Aadhaar for various AI based schemes. It should not be a problem because Indians have been sharing their data with banks, telecom companies, MNCs in return for better products and services. However, India will have to address two big question marks against its capability to leverage AI. One, its lack of research capabilities, and the second its infrastructure. India publishes lesser number of research papers on AI compared to US, China and Europe, pointing towards a lack of a research mind-set. Secondly, it lacks the infrastructure for developing AI, with most data centres located outside the country. Since AI capabilities will be built on data, having data servers outside of India will create risks. However, all said and done, India's AI story is very much doable, thanks to increasing public-private partnership in AI research. Meanwhile, the public discourse on data privacy is encouraging the government to take steps to strengthen laws on data privacy. All these developments are pointing towards an enabling ecosystem for India's AI ecosystem to take off.



We would be delighted if you could follow us on social media, on both

[@connectworldict](https://twitter.com/ConnectWorldICT),
and
<https://www.facebook.com/connectworld.ict>

Web: www.connect-world.com,
Twitter: [@connectworldict](https://twitter.com/ConnectWorldICT),
Facebook: www.facebook.com/connectworld.ict



Connect-World is a major sponsor of leading trade shows globally and regionally such as Mobile World Congress, IBC, Broadband World Forum, CommunicAsia, CEBIT, GITEX, NAB, Futurecom and many more. Where the magazine is not a sponsor, a representative from the magazine is still normally in attendance. www.connect-world.com

Web: www.connect-world.com,
Twitter: [@connectworldict](https://twitter.com/ConnectWorldICT),
Facebook: www.facebook.com/connectworld.ict

