

OPINION

Building a strong AI core for a robust digital economy

By Kriti Sharma

THE application of artificial intelligence has certainly come a long way, especially in the past year. Despite attempts to sensationalise AI, we have witnessed unprecedented gains in our understanding of the impact of AI-driven technologies in everyday life. Building on this progress, AI is poised to journey into the mainstream through 2018 and beyond.

In June, Minister for Communications and Information, S Iswaran, announced that the Singapore government will be setting up an advisory council on the ethical use of AI and data, supported by a five-year research programme. Sharing how “innovative technologies bring economic and societal benefits, as well as attendant ethical issues”, the minister underscored the need for solid regulatory frameworks to build public trust in emerging technology.

This is only one of several initiatives that Singapore has implemented in its effort to embrace AI. This past year also saw the launch of AI.SG, a national programme to boost Singapore's AI capabilities. AI.SG's mission is to anchor deep national capabilities in AI and to make it a key pillar of Singapore's Smart Nation initiative. With Singapore reinventing itself into a knowledge-based economy, AI will undoubtedly feature strongly as part of Singapore's digital transformation plans.

However, more remains to be done. For some, the mechanics and decision-making processes behind AI remain a mystery. For others, the lack of understanding over the implications of implementing AI in everyday life reinforces their apprehension towards AI itself. Here are three key ways that I predict AI will evolve and excel over the next few years:

#1: The AI industry will start to prioritise solving the world's biggest problems

At present, most of AI's current enterprise and consumer applications focus on small-scale, niche problems. Sure, a smart assistant may be able to help book a meeting room or help you discover a new TV show to binge-watch, but is this really the most effective use of AI?

Today's AI technologies already possess the potential to address complex problems, such as managing an entire workforce and solving climate change. I predict companies will begin to deploy AI technologies to tackle the more complex and significant problems.

#2: Cybersecurity will turn to AI to tackle sophisticated threats

While Hollywood would love for us to believe that hackable technology can result in robots taking over our planet, engineers will actually begin to address these issues at the data and algorithm levels with AI. To date, hackers' skills have exceeded the cybersecurity in-

dustry's ability to safeguard vulnerable technologies. To resolve this discrepancy, tech giants like Facebook, Google and Amazon will pursue partnerships with startups and academic researchers to boost cybersecurity with AI. Ultimately, these collaborations will help to produce AI systems capable of monitoring, identifying and preventing hacks.

#3: AI development training and tools will become available to a wider talent pool

AI technologies have become more accessible to the wider public in recent years and will continue to improve as more developer tools, training programmes and career opportunities are made available. People without advanced technical skills will emerge as the future leaders of AI, building solutions to address problems in industries ranging from finance to healthcare to transportation. We will see technical experts collaborate with creative professionals to harness the power of AI to solve the world's most pressing problems.

In response to the need for talent in Singapore's Smart Nation transformation, higher educational institutions are also starting new programmes to nurture AI talents for the industry. Singapore Management University (SMU) recently announced a new postgraduate track in its Master of IT in Business programme, the first of its kind in South-east Asia, to provide an integrated approach of melding AI methodologies into business domains. With more programmes in the pipeline to address the need for such talent, we will inevitably see the mainstreaming of AI in time to come.

Actions speak louder than words

The AI industry launched a global conversation around the importance of developing ethical, unbiased and responsible AI last year. 2018 is the time for us to convert these discussions into tangible action. I believe the AI industry will continue to evolve and make significant strides toward reaching the mainstream.

As AI-powered applications continue to both increase in number across enterprises and expand to new industries, more people will become familiar with the nuances and intricacies of AI technologies. We will see more robust partnerships forming within the AI industry, as well as between the private, public and academic sectors. Industry leaders will now prioritise deploying AI technologies to tackle the most pressing business and societal problems, as we enter the golden age of AI.

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