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Smart Nation 2.0: Hard-coding community at the heart of Singapore's digital future

The renewed strategy will empower the Republic to overcome demographic challenges, bridge the digital divide, and build a more inclusive society. By Ng Lai Yee

IMAGINE Tony Stark without his Iron Man suit – a genius inventor, yet limited by his human capabilities. It's the exoskeleton that transforms him into a superhero, augmenting his strengths and compensating for his vulnerabilities. In the real world, robotic exoskeletons are already enhancing human abilities in logistics, military operations, and healthcare, enabling people to lift heavier loads, traverse challenging terrains, and assist in rehabilitation.

In the same way, Singapore's new Smart Nation aspirations, unveiled by Prime Minister Lawrence Wong on Oct 1, can serve as a digital exoskeleton for the nation, multiplying our capabilities and seizing the opportunities technology enables.

Smart Nation 1.0: A decade-long journey

In 2014, Singapore announced its goal to become the world's first Smart Nation. Then-prime minister Lee Hsien Loong highlighted the systematic use of technology, particularly IT, as an essential asset to improve lives and solidify Singapore's position as a global node for trade and data flows.

Significant progress has since been made. Singapore was this year named the smartest city in Asia and the fifth smartest in the world, according to IMD Business School's annual ranking of the world's 142 smartest cities.

Digital payments, which were once an aspiration, are now part of everyday life. By the end of 2022, 97 per cent of residents were using mobile payments, a substantial increase from 80 per cent in 2017. Government services are highly accessible, with 98 per cent of citizens in 2020 recommending these digital services to family and friends.

Singapore's digital infrastructure was crucial during the Covid-19 pandemic, enabling remote work and online learning, while tools such as TraceTogether facilitated effective contact tracing. Furthermore, 97 per cent of businesses credited these digital solutions for playing a key role in Singapore's pandemic response.

Local businesses have also embraced artificial intelligence (AI) and automation, addressing labour shortages and improving efficiency. According to the Infocomm Media Development Authority (IMDA)'s 2024 Digital Enterprise Blueprint, nine in 10 enterprises have adopted at least one advanced digital technology.

Despite these achievements, Singapore now faces new and pressing demographic and technological challenges that require a fresh strategic focus.

Smart Nation 2.0's new digital landscape

Singapore's total fertility rate hit a historic low of 0.97 in 2023, far below the replacement level of 2.1. By 2030, one in four Singaporeans will be aged 65 or older, leading to a shrinking and aging workforce. This demographic shift presents challenges to Singapore's long-term economic growth and competitiveness.

Meanwhile, the global economy is being radically transformed by advancements in generative AI and emerging digital technologies, reshaping sectors like finance, with AI-powered fraud detection systems enhancing security and reducing financial losses. AI adoption is projected to add up to S$198.3 billion to Singapore's economy by 2030.

While these opportunities abound, more than half of respondents in the 2024 Edelman Trust Barometer expressed concerns that society and technology are changing too quickly, often in ways that don't benefit them.

The first decade of Singapore's Smart Nation journey focused on building robust digital infrastructure and economic efficiency. Smart Nation 2.0 shifts the focus to the social dimensions of technology, broadening its focus beyond businesses and governments.

Building community: The heart of Smart Nation 2.0

Globally, technology has often been a double-edged sword, leading to fragmentation and division. Smart Nation 2.0 seeks to reverse this trend by harnessing technology to foster unity by ensuring the benefits of digital technology are shared equitably across all demographics.

For instance, Health Kaki, a new digital platform concept co-developed by the Ministry of Health, Health Promotion Board, Temus, and Amazon Web Services, showcases this approach. Using generative AI, it will provide personalised health recommendations, empowering individuals to take control of their wellness. But it goes further, bringing families and healthcare providers together in collaborative efforts towards healthier living. This digital tool fosters connections, transforming health management into a community-driven endeavour.

Similar approaches globally have shown how powerful preventive and predictive healthcare can be in improving lives. Japan's focus on regular health screenings and personalised wellness programmes has resulted in one of the highest life expectancies globally,

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at 84.5 years. Its preventive healthcare strategy, which encourages healthy lifestyles and early detection of chronic illnesses, has been instrumental in prolonging both the quality and length of life for its citizens. Similarly, Finland has reduced the prevalence of chronic diseases through nationwide preventive health programmes, resulting in decreased healthcare costs and improved national well-being. Smart Nation 2.0's Health Kaki reflects these proven models – and with Singapore's digital exoskeleton, it can do so at scale.

For Singapore, digital inclusivity extends beyond healthcare, recognising that it is equally crucial in preparing the country's workforce for the digital future too.

As AI and emerging technologies reshape the global economy, the risk of job displacement grows. Smart Nation 2.0's focus on community ensures that technological advancements translate into meaningful opportunities for all.

One of these initiatives is Temus' Step IT Up Singapore, a tech career conversion programme aimed at individuals from non-IT backgrounds. Launched in 2022 in partnership with Singapore's IMDA and Digital Industry Singapore, the programme focuses on hiring, training, and placing local talent into full-time digital roles, directly addressing the growing demand for home-grown tech expertise.

What makes Step IT Up truly impactful is its commitment to individuals from diverse fields – 59 graduates to date have transitioned from backgrounds like food delivery, music, and real estate into digital careers. Among them is an inspiring story of an optometrist who, after years of supporting his brothers' education, seized the opportunity to reinvent his own career as a software developer in the programme's first cohort. By expanding the digital talent pool through initiatives like Step IT Up, Singapore is not only preparing its workforce to thrive in Smart Nation 2.0, but also mitigating the risks of job displacement in an era of rapid technological change.

From digital vision to reality

Singapore's renewed digital strategy envisions a society where growth, community, and trust are intertwined. Whether through initiatives in education, healthcare, or workforce development, Smart Nation 2.0 is paving the way for a future where digital technology empowers all.

Just as Tony Stark's exoskeleton enables him to transcend human limitations, Smart Nation 2.0 is Singapore's digital exoskeleton – empowering the nation to overcome demographic challenges, bridge the digital divide, and build a more inclusive society.

By prioritising community and inclusion, Smart Nation 2.0 ensures that Singapore's digital exoskeleton will not only strengthen our capabilities but also protect and uplift every individual so that communities flourish, and the human spirit is empowered – growing stronger, more connected, and ready for the future.

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