

Commentary

Aye, robots! Intelligent automation picks up pace

Bosses in service industries must tap smart technologies to reap benefits, mitigate risks



Jochen Wirtz

For The Straits Times

The coronavirus pandemic did more to drive digitisation by way of service robots and intelligent automation than any organisational leader had thought possible.

Much like how the 18th century industrial revolution brought high-quality, low-cost manufactured goods to the masses, intelligent automation will bring expensive services to the public at lower costs and with improved quality.

Imagine a hologram-based humanoid service robot at Changi Airport. It could be installed every 50m to assist passengers and deal with common questions like directions to the airport hotel or

nearest toilet and provide arrival and departure information.

These holograms require only low-cost hardware – camera, microphone, a speaker and hologram projector – and do not need to take up floor space, so travellers could actually push their baggage carts through one.

This is more and better services at a lower cost.

Technologies are becoming smarter, faster and more powerful while, at the same time, they get smaller, lighter and cheaper. From hardware – wearables, robots and drones – to software such as speech and image processing and geo-tagging, technology is changing how consumers interact with businesses.

Service robots and intelligent automation, in combination with these innovations, will transform virtually all service industries and lead to dramatically improved customer experiences, service quality and productivity.

Consumers would already be familiar with virtual robots such as chatbots and virtual agents.

These technologies have unprecedented economies of scale

and scope as much of the costs is incurred in their development. For example, virtual robots can be scaled at close to zero incremental costs and physical robots cost a fraction of adding headcount.

What is so hot about service robots? They are autonomous and can interact in a smart way with customers, abilities that make them different from traditional self-service technologies such as ATMs, ticketing machines and apps.

What is exciting about service robots is that they can conduct unstructured interactions with customers and guide them. For example, a service robot-powered ticketing machine can ask travellers: “Do you need a return ticket? Is your return trip today?”

Customers will be able to interact with such robots much the same way as with service employees. For example, they can simply tell the robot: “I need a same-day return ticket and want to pay with Nets.”

Said the wrong thing? No problem, service robots can adapt to customer errors and recover the operations’ process.

Routine customer interactions

are increasingly moving from people-delivered contact centres to virtual text and voice-based conversational agents. Calls tend to be pre-screened and routed either to a conversational agent or a human, depending on how complex a customer’s request is.

Even when interacting with a human employee, he may well be AI-supported. The outcome is that the staff can spend time on higher-value and higher-level tasks and do not have to deal with high volumes of trivial customer requests.

Furthermore, services that require high cognitive and analytical skills, such as financial services, can be delivered effectively by service robots.

They can analyse large volumes of data, integrate internal and external information, recognise patterns and relate these to customer profiles. Within minutes, these robots can propose best-fitting solutions and make recommendations.

A good example are robo advisers, which help to build a customer’s investment portfolio.

However, it is difficult for service

robots to deal with emotions that go beyond pleasant surface demeanour. Here, complex and emotionally difficult tasks are still best handled by front-line employees as they bring emotions like empathy and compassion.

Finally, tasks that require high cognitive and emotional skills will increasingly be delivered by human-robot teams. Robots will do the analytical work such as analysing symptoms and map them against databases to identify possible diagnoses.

Humans, meanwhile, will make the final recommendations and perform the social and emotional tasks like providing advice and helping to persuade patients to take the best course of action.

Service robots and intelligent automation will dramatically change the customer experience, value proposition and price.

We have heard plenty about the demise of longstanding shopping centres this year. Perhaps the use of service robots can be a differentiating factor for the remaining ones.

The service revolution provides opportunities for the smart and

nimble Asian firm.

However, this revolution and the scalability of its technologies will likely lead to a dramatic consolidation of many service industries.

Asian leaders need to ensure that their organisations are at the vanguard of this revolution to reap its benefits and mitigate the risks.

As for consumers, the service revolution would be one that makes 2021 something to look forward to.

• The writer is vice-dean for MBA programmes and a professor of marketing at National University of Singapore Business School. He is the co-author of the book *Intelligent Automation – Welcome To The World Of Hyperautomation*. The opinions expressed are his own.



Customers at a cafe in Moscow which is using a robotic waiter to provide contactless service amid the Covid-19 outbreak. But complex and emotionally difficult tasks are still best handled by front-line staff. PHOTO: REUTERS