



#TECH: Future of voice AI

By [Nur Zarina Othman](#) - November 7, 2022 @ 1:10pm

A start-up develops a new voice technology that makes machines sound like humans

DIGITALISATION encompasses intelligent solutions that help businesses grow, operate quickly and increase customer satisfaction, and the newest innovation in customer service is voice artificial intelligence (AI).

So, what is it all about? Are you familiar with voice-activated menus? Or the forever "helpful" chatbot in a shopping or travel booking app?

These are new advancements in customer support technology that leverage automated robotics and speech analytics.

Compared with past chatbots and virtual assistants, the latest voice AI does not only provide a more empathic relationship between businesses and customers, but also sounds remarkably "human".

SPEAKING THE LANGUAGE

The language barrier can pose a huge hindrance to building business relationships. It drives away clients to rivals who have an upper hand in a particular language.

However, there is this new innovation that can be customised to the mother tongue of various customers.

At present, AI voice assistants like Siri, Alexa and Cortana are built with limitations of third-party AI models that only incorporate Western accents.

The non-human "customer service agent" that can understand casual speech in Bahasa Malaysia, without changing its settings to "textbook" Malay, has yet to be invented.

In order to offer meaningful localised conversations with near-human experience, one start-up in Singapore has developed its own "AI brain" or proprietary AI stack comprising an automatic speech recognition system, natural language processing (NLP) capability and text-to-speech (TTS) converter to power its voice AI.

This voice AI stack is currently trained to understand and speak more than 16 languages and regional accents in Southeast Asia, and it is still looking to learn more dialects.

Established in 2019, the start-up, called AI Rudder, integrates cutting-edge natural language understanding, automatic speech recognition and TTS technology into its product — the first voice AI solution for customer service with such an ability in this region.

Co-founder and creator, Wu Kun, shared how the company's AI stack could help bring businesses closer to their clients by breaking down the language barrier.

"We often find ourselves communicating in English even when neither one of us is a natural speaker because of necessity. Having a programme, a solution that can speak various languages in local dialects would be great for businesses," explained Wu, who has more than 10 years' experience in developing speech synthesis, NLP, semantic comprehension, and other AI and HCI (human-computer interaction) technologies.



Voice artificial intelligence technology is currently one of the most promising tools for companies. -PICTURE BY FREEPIK

KEEPING UP WITH THE REST

Voice AI technology is one of the most promising tools that companies can use to grow their customer base.

It offers businesses the chance to celebrate linguistic diversity and connect groups that will otherwise be shut out of the mainstream economy because of the language they speak.

"These distinctions in our technology ensure that customers receive intuitive, empathetic customer service with a human touch.

"For instance, our clients in Indonesia have implemented AI-powered voice assistants to communicate with their customers. In addition to speaking Bahasa Indonesia, it is able to understand and communicate in multiple Indonesian dialects.

"We work closely with our customers to leverage our voice AI's language capabilities, assisting them in reaching and activating a broader consumer base, in addition to improving their overall customer experience," said Wu.

His extensive experience in conversational AI has allowed Wu to automate large-scale discussions with intelligent voice bots too.

CUTTING COST

Time is of the essence, especially when overhead costs, like staff salaries, are something that a company cannot ignore. For service providers and e-commerce players, having a good customer service team is key to building a digital-first and borderless business.

Sharing his observations, Wu said doing business in Asia is very complicated as it involves customers from multilingual countries such as Malaysia and Singapore.

"In the Asian region, we are recognised as being a melting pot of different cultures, with diverse languages and dialects.

"The future of service will maximise on humans and AI. In countries, like Malaysia, Indonesia and Thailand, multiple languages are used.

"Here, Malaysians speak at least four major languages — Bahasa Malaysia, English, Mandarin and Tamil — and AI assistance can provide an affordable way to stay in business.



Wu Kun

"It will be difficult to find an agent who can understand and communicate in at least two languages, let alone four. Having a solution that can understand and speak multiple languages and regional dialects will definitely offer an advantage.

"This innovation in voice AI will solve the need to hire so many (human) agents to meet the (language) needs of the market. It will soon eliminate linguistic barriers," he said.

BETTER CUSTOMER EXPERIENCE

Naturally, customers want to have a human connection and empathy when talking to customer service. So it is critical that the voice AI we use represents us in our native language.

This is rather the opposite of the current voice assistant technology — chatbots and self-service menus.

The future in customer satisfaction includes AI-powered voice assistants with unparalleled linguistic mastery. AI technology also reduces the time it takes to analyse a conversation.

Increased speed means increased productivity as businesses can analyse conversations and complaints more quickly, resulting in a more accurate response in less time.

However, despite being an advocate of technology, Wu believed that voice AI assistants are not the only way to provide a holistic customer experience.

To him, businesses must continue to scale contact centre operations to support operations in other geographies and train human agents to handle more delicate and complex calls.

"We believe that by leveraging the power of voice AI, businesses can supercharge their customer experience by combining the best of AI and human service," he said.