

Business Line

04 May, 2017

Page No. 07

Soon, speak to devices in your mother tongue to get things done

Amazon to bring voice-based computing tech to India

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Mumbai, May 3

Soon enough you'll be able to talk to your computer or phone to perform any task — right from creating a document to checking how much balance you have in your account and it could be online retailer Amazon driving that transformation. And you could do this in Bhojpuri or even Tulu.

"Voice is going to be one of the main interfaces in the way consumers will consume digital services in the future," Werner Vogels, Amazon's Chief Technology Officer, told *BusinessLine* in an interview, while acknowledging

that learning local languages such as Tulu, spoken by a relatively small population in coastal Karnataka, is still a challenge.

"The cool thing is that we are on the verge of automatically learning these languages. Languages like English were done with lots of humans involved in training the system and vetting whether this indeed is the intent of the language. We are working on conversational systems and one of the areas is how you can have digital systems learn these languages with just tapes of the languages



Werner Vogels; Chief Technology Officer

and make it an automated process," Vogels said.

There are 9,606 languages in the world. Only 230 of them are in western countries. Vogels said with the help of automation, using speech to interact with computers would be commonplace across the world and it will be extremely important for countries such as India where millions of people have never used digital interfaces such as keyboard and mouse.

"We really see for example for elderly people as well as young people that voice is so natural. This is the natural interface to access something. However, all the other interfaces we've had until now, have been driven by the capabilities of computers — through screen, keyboard

and mouse," he said, adding that computer systems and programs will have to be written with natural language interface in mind.

The \$136-billion Amazon is already ahead of most other when it comes to natural language processing through a technology called Alexa. So far, Alexa has been limited to select products such as Amazon's personal assistant speaker called Echo.

Speech recognition tech

Last week, at a conference in San Francisco, Amazon announced that the technology behind Alexa would be open to developers who can create products using Amazon's Lex (speech recognition and natural language processing engine) and Polly (text-to-speech engine).

He said these tools will soon

be available in India and more languages will be supported.

In developing nations, smartphones will be the primary way of accessing digital services and voice will be the primary way of interactions there, he said.

Giving an example of The International Rice Research Institute in the Philippines, he said the institute has built an engine based on AWS where they can determine the best time to apply fertilisers on small farms to maximise crop yields. "To get this accessible to small farmers, who have very basic phones, they built a system wherein farmers can call in and describe their patch of land and machine learning tool gives them advice on what fertilizer to apply at what time. It reduced the fertiliser use by 90 per cent and doubled crop yield," Vogels said, adding that voice lets people use

access technology without any training.

Vogel said the company is extremely bullish on India where it is growing extremely rapidly.

"Last year when Amazon Web Services launched a region here in India (local data centres), we had 75,000 customers at that time. Now, nine months later we have 1,20,000 customers in India. What's the biggest driver here is the enterprises moving to AWS. There is no vertical that's not making use of AWS in India — examples include companies such as Axis Bank, Bajaj Financial Services, Hotstar, Hungama," he said, adding that the company is going beyond selling server and storage space and looking at services such as IoT and analytics.

Vogels also complemented Indian start-ups for being focused on sustainability instead of chasing million customer target.