Speech Technology to Pave the Way for an Inclusive Internet

The news of a giant Indian conglomerate investing in startups focusing on Indic languages made news in May this year. The investment of Rs 190 crores brings to light, once again, the rapid increase in demand for content in local Indian languages rather than English.

The basic premise of internet is *language* and technology providers have time and again proven the farsightedness to be prepared for consumer demands. While the initial days were about typing each word in English, the next phase was when we moved to software that could predict the words and make recommendations- speeding up the way we could type. Soon came chatbots, that used artificial intelligence to bring in ease of business.

Further, recognizing the need to make the customer experience more convenient and also include specially abled persons, we soon had speech apps that would type for the user by recognizing the speech. All these great innovations played a pivotal role in widening the adoption of internet amongst all the demographics.

Today, an upcoming demographic that has emerged are the people from tier 2 and 3 towns as access to the internet is democratizing. This has stepped up the demand for Indian language based content and interactions online. This is a huge opportunity for the industry as these users are expected to touch 500 million by 2021. To reach this wider audience and be more inclusive, content in local Indic languages cannot be ignored. To be inclusive and cater to the multilingual user base, speech technology apps must become the focus of the next wave of innovation.

SPEECH TECHNOLOGY APPS

India has always celebrated its diversity and the future of Digital India is no different. Internet must evolve to become inclusive and serve to the demands of its diverse consumers.

To boost engagement with users, we must recognize that the growing base of internet users in India are coming from small towns and villages of the country, where English cannot sustain as a mode of communication. As per a KPMG report, currently India has 234 million Indian language users as against 175 million english language users. This in itself calls out the huge untapped potential and the industry must equip itself adequately for content and aids in local languages to improve customer experience.

Chatbots version 2.0 for eg can be an intuitive voice-bot instead which recognizes local Indic languages and be used commonly by people who may not be equipped to type on their mobile phones.

GIVING VOICE TO INDIAN LANGUAGES

Developments in building speech technologies that understand local language, its nuances, sensibilities and accents, and syntax have already begun. However, we have a long way to go before its potential is tapped to its best. For the same, the ecosystem needs to come together and work collaboratively. With the current wave of Startup India, however, one can expect a lot of innovation

from startups to address this challenge. Voice technologies have the potential to eliminate the need to type itself, which will open an entire audience segment whose potential remains untapped to date. From children who are still learning their ABCs, to senior citizens who are unable to keep pace with technology and find it difficult to type, from specially abled persons who are limited by their situation to individuals in far flung towns of the country who are unable to comprehend English.

PERCEIVED CHALLENGES AND REAL OPPORTUNITIES

We live in a country where there are 22 different languages written in 13 scripts, with over 720 dialects. In this diversity, it cannot be denied that understanding the nuances, articulating the accents and developing technologies that can address all requirements will be difficult.
But it is a market reality which technology must master to survive.

Secondly, the AI engine needs data to process and learn and this takes time. Although there are some companies that are investing in voice technology in Indian languages, they have a long way to go before they reach a point where the software can assure 99% accuracy. Another challenge is that there is not enough data available in Indic languages right now. This restricts the machine learning to available data as and when.

But the opportunity lies in the fact that the overall speech and voice recognition market is expected to reach USD 21.5 billion by 2024 from USD 7.5 billion in 2018, at a CAGR of 19.18% (Source) especially with a high growth potential in healthcare application, growing demand for voice authentication in mobile banking application, rapid proliferation of multifunctional devices or smart speakers, and growing impact of AI on the accuracy of speech and voice recognition.

CONCLUSION

Imagine the scope when a farmer in Maharashtra is getting assistance from the latest Krishi app in Marathi, and he is able to understand and appreciate every input that is given. Or a housewife in a small village of Kerala who is able to instruct her phone to make payments.

The sense of independence and freedom that speech technologies can bring to Indians is waiting to be discovered.

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