Microsoft researchers use social media to teach Skype how to translate languages in real-time
26 August 2014, by Bob Yirka

Representatives with Microsoft have revealed that the main "trick" in real-time language translation is recognizing the difference between spoken and written languages. When people talk, they note, they use all manner of cues to convey meaning—they hem and hah, and use words like um to give them more time to respond. They also pronounce words differently, using tone changes to convey added information, such as whether what they are saying is a statement, or a question. To build their translator, Microsoft started by feeding text from books and articles into a software engine designed to tear sentences apart looking for meaning in smaller phrases—and then mapping them to similar phrases in the target language. That approach led to some advancements in the neural network (learning part of the software) but more work still needed to be done. It turns out, Microsoft engineers looked to social media sites because of the unique language structure used by the people who use them to convey meaning in a way that is more like conversation than typical written documents.

Because the different social media sites tend to have their own language characteristics, Microsoft started by writing software that could normalize posts from the various sites, arriving at a common format. Adding the normalized data to the original software engine led to a dramatic improvement in the sound of conversational language, and it's what users will hear once Skype Translator is finally released as a beta app for Windows 8 by the end of this year.

More information: via IEEE

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