PUTTING MACHINE LEARNING TO THE TEST

To provide a seamless user experience, Skype Translator uses machine learning to solve key challenges in interpreting human language, including:



Representing the different ways people really speak



Determining sentence boundaries, punctuation and case from speech

there they're their

Disambiguating sound-alike words in context



Mapping words and phrases from one language to another

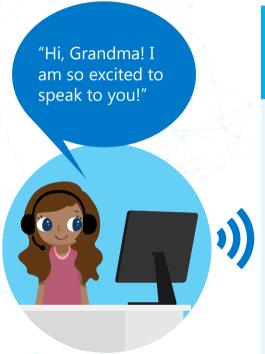


NOW YOU'RE SPEAKING MY LANGUAGE (LITERALLY)



Skype has always been about making it easy to talk with family and friends all over the world. Now, by integrating advanced speech recognition and automatic translation into Skype, Skype Translator lets you speak with those you've always wished you could, even if they speak a different language.

HOW SKYPE TRANSLATOR WORKS



Automatic Recognition

Speech

Correction

Translation

Text to Speech Using and Teaching

"s-so excited, ah..." "s-so excited, ah..."

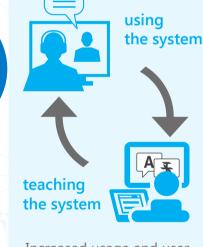
"so excited..."

Speech disfluencies—those "ums," "ahs," stutters and repetitions—are removed, and the top choice among the sound-alike words is made, getting the text ready for translation.

English

Skype Translator has learned how dozens of languages align with one another by reviewing millions of pieces of previously translated content. Using Microsoft Translator, the same tool used in numerous Microsoft products, it applies this knowledge to quickly translate the text into Spanish.





Increased usage and user feedback, plus constant refinement by human transcribers, help Skype Translator learn and get



TRANSLATE INSTANT MESSAGES IN **OVER 40 LANGUAGES**

Holding a translated IM conversation is super easy: Choose a contact, turn on the Translation switch for that person, and start typing. When you hit enter (or tap send), your original message will appear in the right-hand pane, followed by its translation. Your contact on the other end will see something very similar, albeit with the translated message in his/her preferred language presented first. While voice translation initially supports English and Spanish only, IM translation supports over 40 languages, so feel free to experiment with them all—even Klingon!

A deep neural network

analyzes Lydia's speech

against audio snippets

recorded samples and

set of text candidates.

from millions of previously

transforms the audio to a



Register for the preview at www.skype.com/translator and wait for your invite.

Install the Skype Translator client.

Use Skype Translator to call someone who speaks Spanish. Or, if you speak Spanish, call someone who speaks English.

Every call you make helps Skype Translator get a little bit better. You won't see the improvement right away, but you will see gradual improvement over time.