

Translating: From Arabic to Zulu

The current pace of document creation (on the Internet, for example) is much greater than the capacity of human translators, which makes *machine translation* a necessity. Machine translators use probability, statistics and graph theory in combination with databases of hundreds of millions of words and phrases in many languages to achieve good translations efficiently. Thus, mathematics, often called the universal language, also forms a bridge between languages.

Once a document is translated, the question becomes: How good is the translation? Numerical measures of effectiveness help automate this part of the process as well, saving time and money. Results from the evaluation improve translation algorithms so that the urban legend of a computer translating “The spirit is willing but the flesh is weak” into Russian and back into English as “The vodka is good but the meat is rotten” will remain a legend.

For More Information: “Machine Translation in the Year 2004,” Kevin Knight and Daniel Marcu, <http://www.isi.edu/~marcu/papers/mt-icassp2005.pdf>.

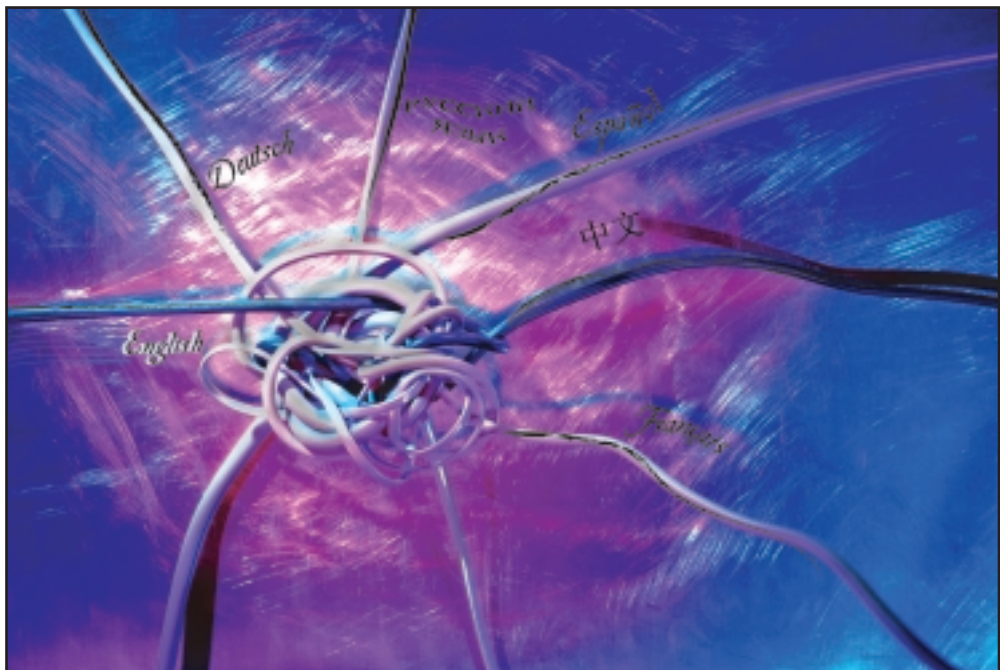


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