Technology Transfer Opportunity

Using Same-Language Machine Translation to Create Alternative Target Sequences for Text-To-Speech Synthesis

OPPORTUNITY:

Speech based machine translation has always concentrated on the task of translating between one language and another. In this invention machine translation has been turned to the task of making a language (the same language for input and output) more understandable while retaining the original context.

The technology described is a research output from the Centre for Next Generation Localisation (www.cngl.ie) an SFI funded CSET based in Dublin City University.

Description of Technology:

The proposed system is based on a standard speech translation engine which has been trained with finite amounts of text and corresponding speech. This produces a series of sentences to be spoken which retain the context of the original text. These sentences are then passed to a speech synthesizer which chooses the optimal one to speak based on an estimate of which one would be best understood by the listener.

Value Proposition:

The key benefit offered by the implementation of this invention is that "naturalness" of machine translation is no longer limited by the training data used. The system chooses how to speak a piece if text based on the training data it has and the retention of meaning based on context.

Market:

The technology could have application in a number of different markets. Examples may be:

- Automotive: Reading of text messages to the driver
- Technical support: To translate documented technical terms into more understandable language.
- In time critical emergency events
- Translating a conversation between non native speakers when they share a common language.

Inventors:

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Status:

Priority Patent Application filed in Ireland, the US and Europe on 10/9/09.

Opportunity Sought:

License or development partner opportunity available.

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