University of East Anglia

SYS CONSULTING

Say It Sign It: Converting speech to deaf signs

Business Challenge

Working with SYS Consulting Ltd and the RNID, IBM has developed an ingenious system called SiSi (Say It Sign It) that automatically converts the spoken word into British Sign Language (BSL) which is then signed by an animated digital character or avatar.

Dr Andy Stanford-Clark, Master Inventor, IBM Hursley said: "This technology has the potential to make life easier for the deaf community by providing automatic signing for television broadcasts, and making radio news and talk shows available to a new audience over the Internet, or by providing automated voicemail transcription to allow them to make better use of the mobile network."

Professor John Glauert, Executive Director of SYS Consulting Ltd said: "SiSi is an exciting application of the University of East Anglia's avatar signing technology that promises to give deaf people access to sign language services in many new circumstances."

Our Solution & Expertise

SiSi brings together a number of computer technologies. A speech recognition module converts the spoken word into text, which SiSi then interprets into gestures, that are used to animate an avatar developed at the University which signs in BSL.

The signing avatars and the award-winning technology for animating sign language from a special gesture notation were developed by the University and the database of signs was developed by RNID (Royal National Institute for Deaf People).

Business Benefits

With an estimated 55,000 people in the UK for whom BSL is their first language, there are great opportunities for businesses, including firms in the leisure and entertainment industries, to make themselves more accessible to this audience, and also to communicate more effectively with them.

Guido Gybels, Director of New Technologies at RNID, said: "RNID welcomes any development that would make the Information Society a more equal place for deaf and hard of hearing people. British Sign Language users are amongst the most disenfranchised citizens as a result of services and products not being designed with their needs in mind. There is clearly still a long way to go before such prototypes become fully capable, off-the-shelf products, but it is encouraging to see that mainstream research is contributing to this objective of a more inclusive society."

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