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AwezaMed: A multilingual, multimodal speech-to-speech translation application for maternal health care

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Abstract

The language contexts of multilingual developing countries such as South Africa are often characterised by communication challenges resulting from language differences. AwezaMed is a multilingual, multimodal speech-to-speech translation application for the health care domain, which was designed to assist in bridging communication barriers and mitigate the risks of miscommunication. The application focuses on the domain of maternal health care. It uses English as source language and Afrikaans, isiXhosa and isiZulu as target languages to enable health care providers to communicate with patients in their own language. It incorporates automatic speech recognition, machine translation and text-to-speech to deliver speech-to-speech translation functionality in a scalable way via a REST API to an Android mobile application. It is being piloted at various health care facilities across South Africa.