

Osmopet

Speech-to-speech translation on a mobile device

Seth Horrigan

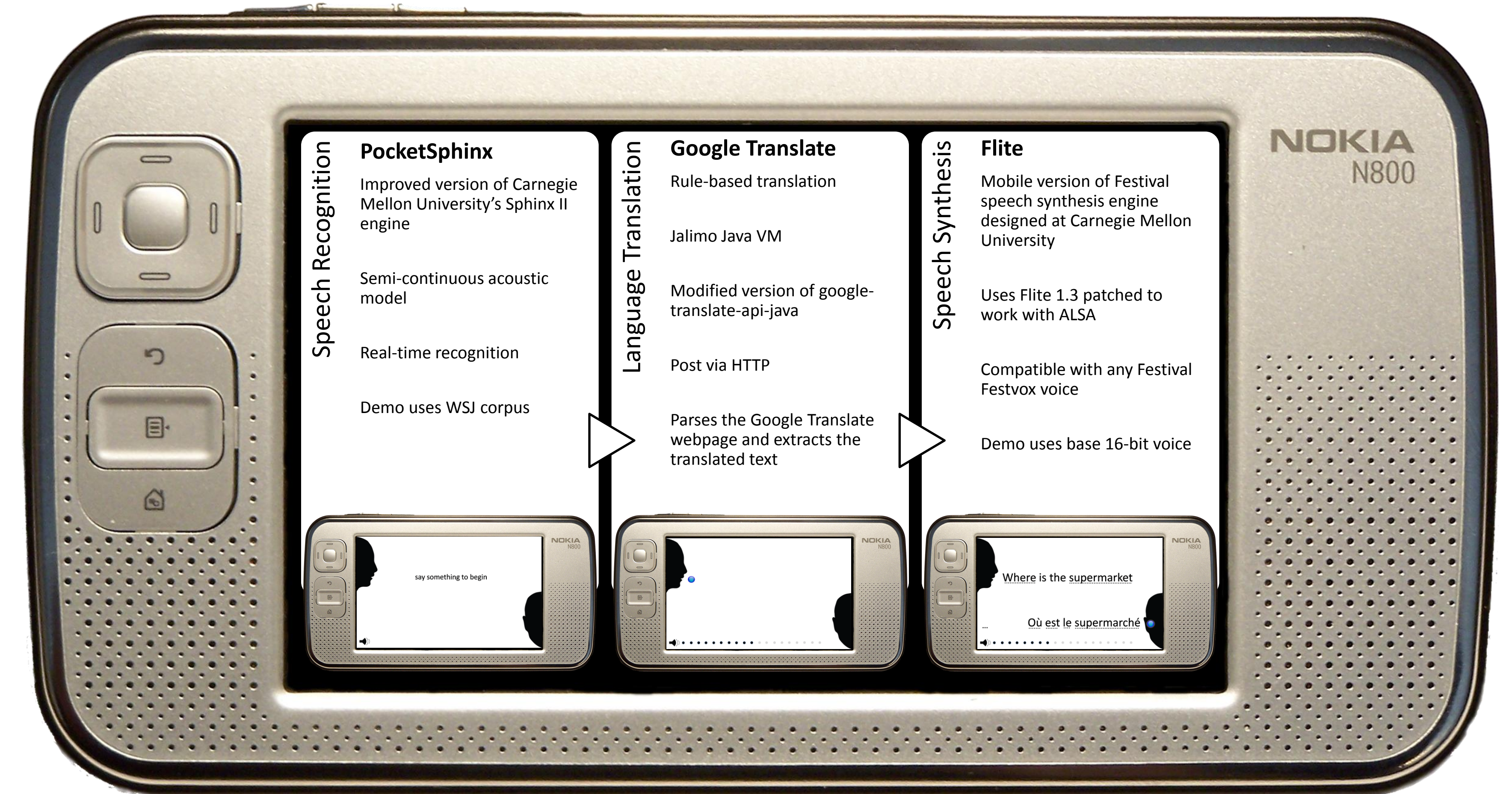
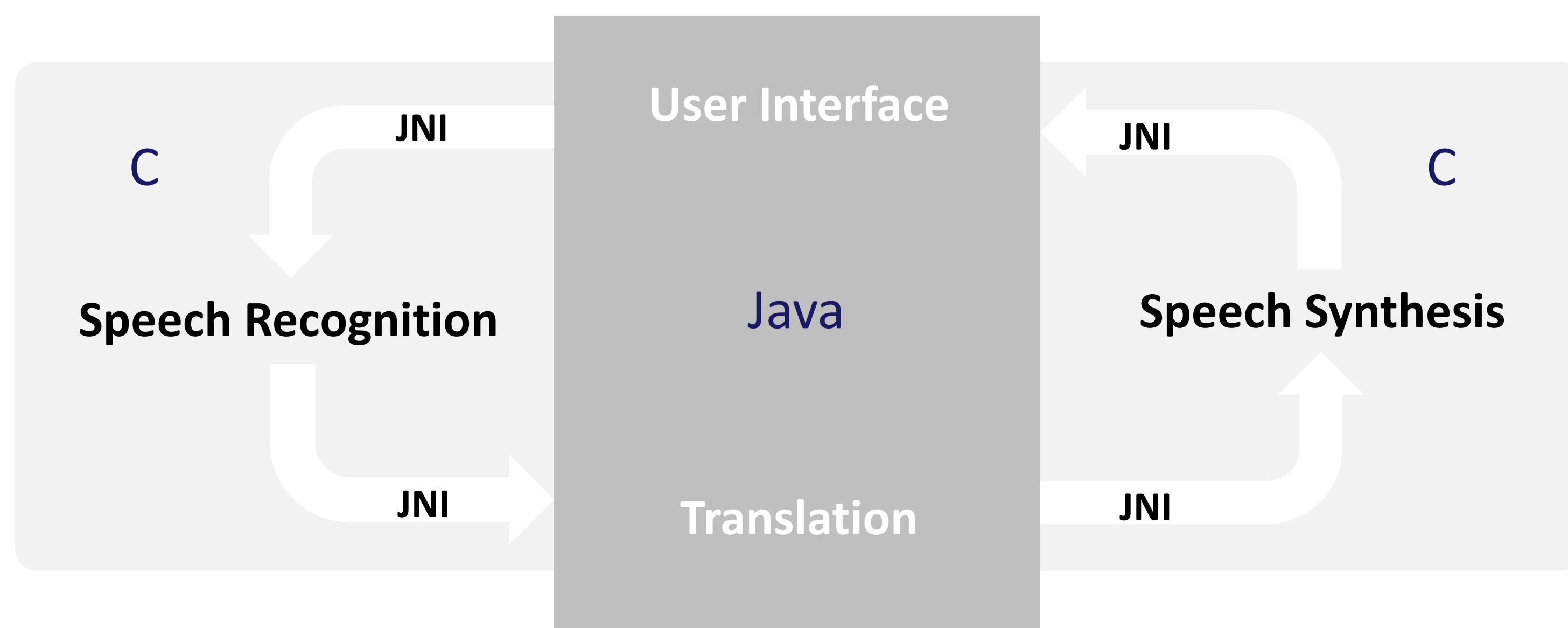
Objectives

- Support mobile language learning
- Support travel in foreign countries

Method

By providing a mobile speech-to-speech translation system, we allow individuals to say words or phrases they wish to know and hear them in the desired language. This offers the advantage of an electronic talking dictionary or electronic talking phrasebook but removes the constraint of searching for the desired text. By employing speech synthesis instead of a pre-recorded phrase library, we are limited only by the breadth of the current lexicon.

Architecture Overview



Related Work

DARPA Transtac

Transtac is a federal defense project to develop a two-way speech-to-speech translation system to run on a mobile platform. The research is being developed in a military context with a focus on domains like "force protection" and "sewage control." IBM, Carnegie Mellon University, University of Southern California, BBN Technologies, and SRI are all major funded contributors.

GALE

GALE is an ongoing project to design a robust automatic speech recognition and translation system with a focus on speaker identification. This project is primarily conducted at the International Computer Science Institute (ICSI)

Future Work

- Robust user interface development
- Incorporate foreign language and improved English synthesis lexical models
- Incorporate foreign language and improved English acoustic models