speekle

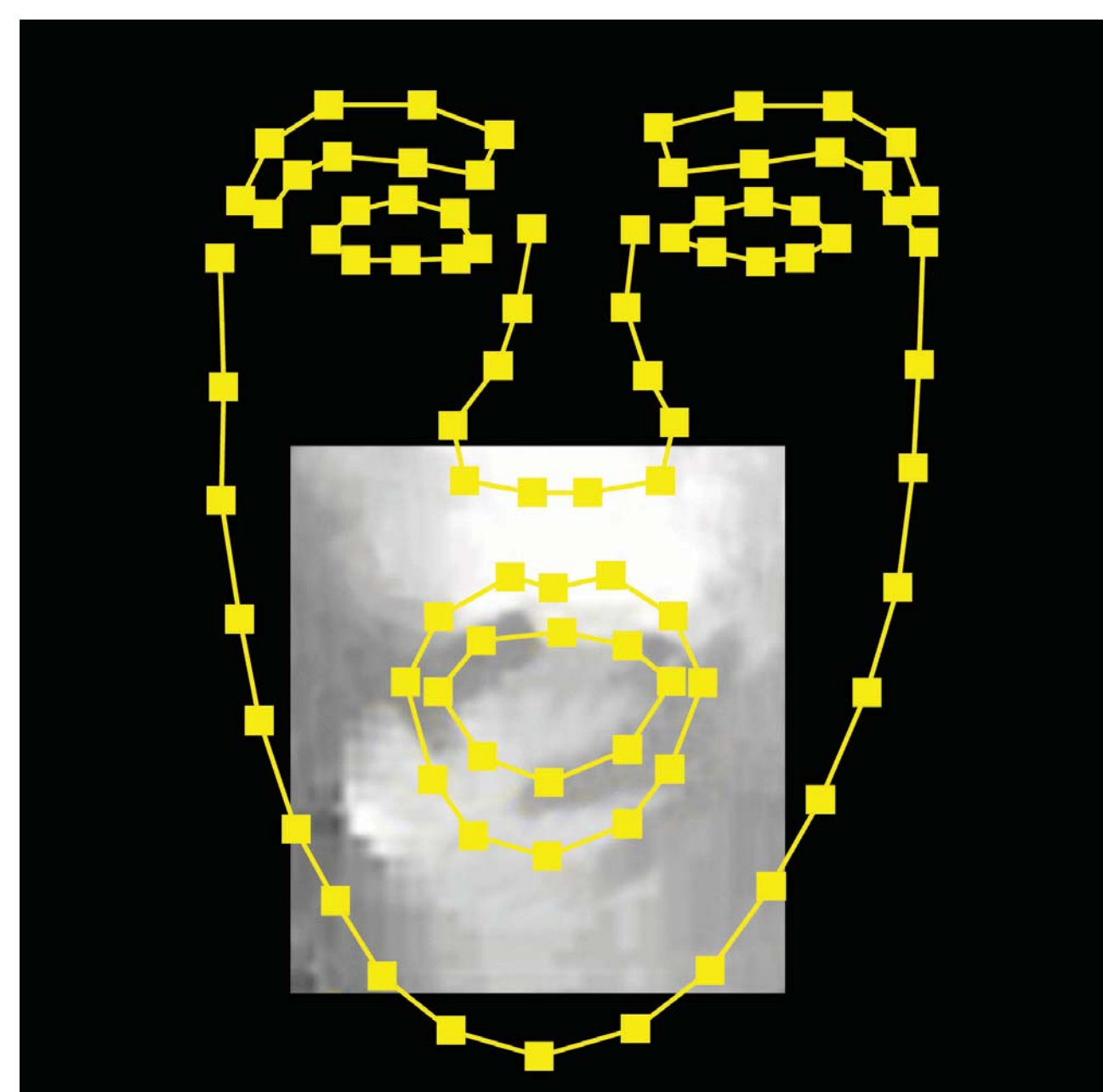# Improving speech therapy by motivational home exercises

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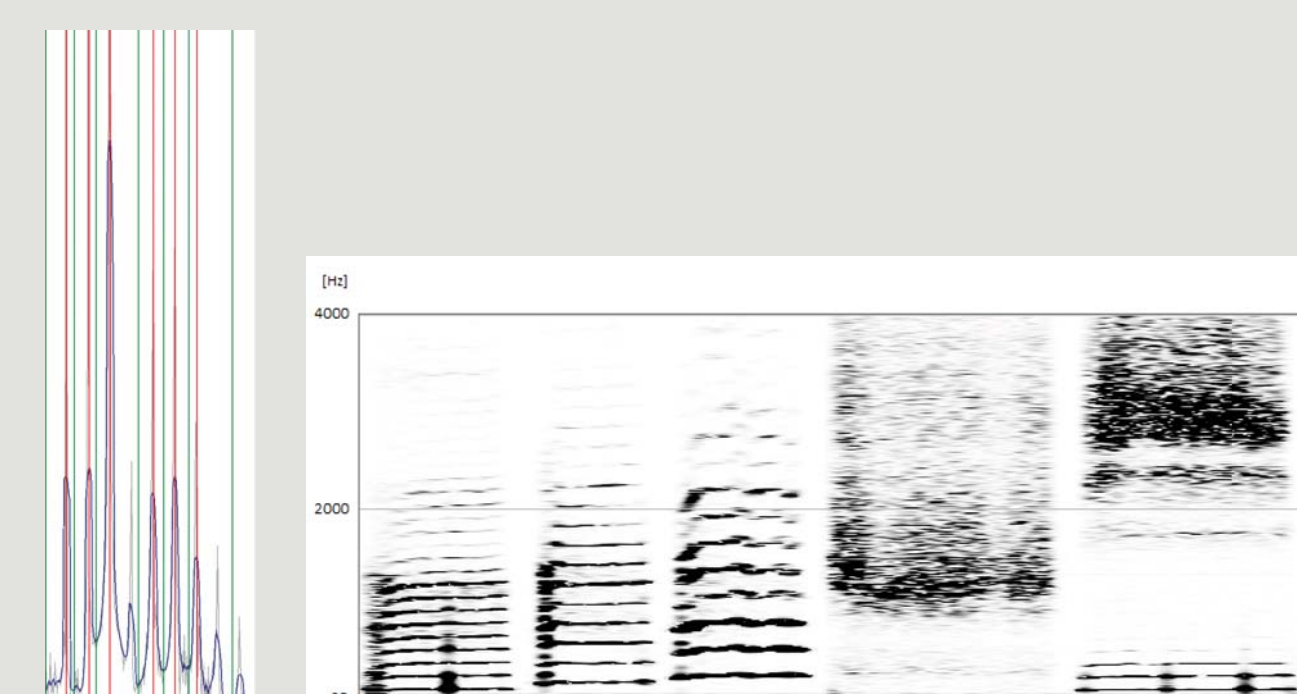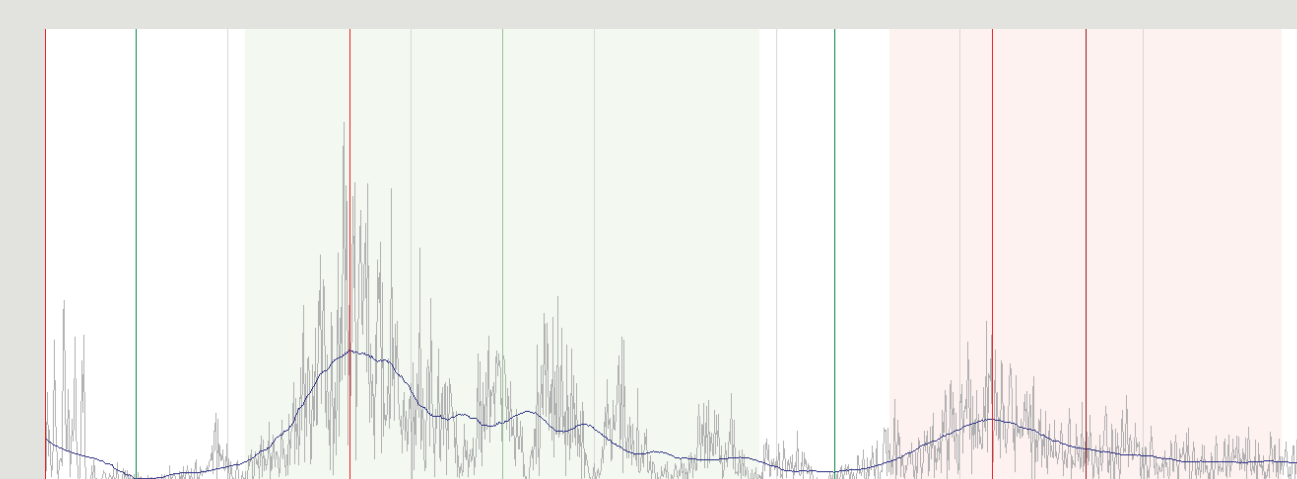
Phoneme recognition

- Frequency analysis
- Harmonics and dominant frequency bands
- Complex analysis of dominant frequency bands attributes and other factors
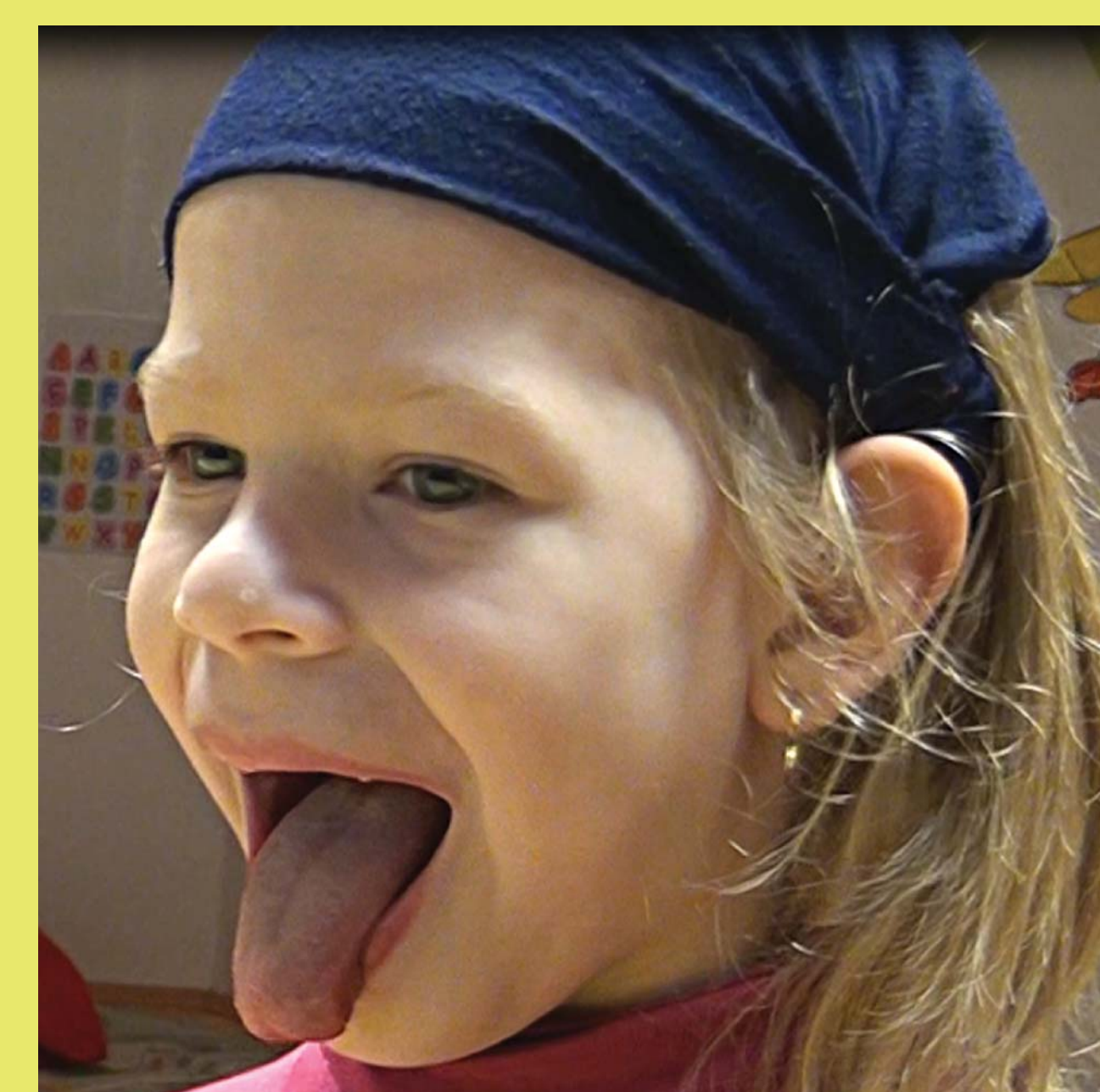- Sibilants recognition

- **Kinect**

- Depth map and face points
- Complex analysis of depth local extremes around mouth in horizontal and vertical way
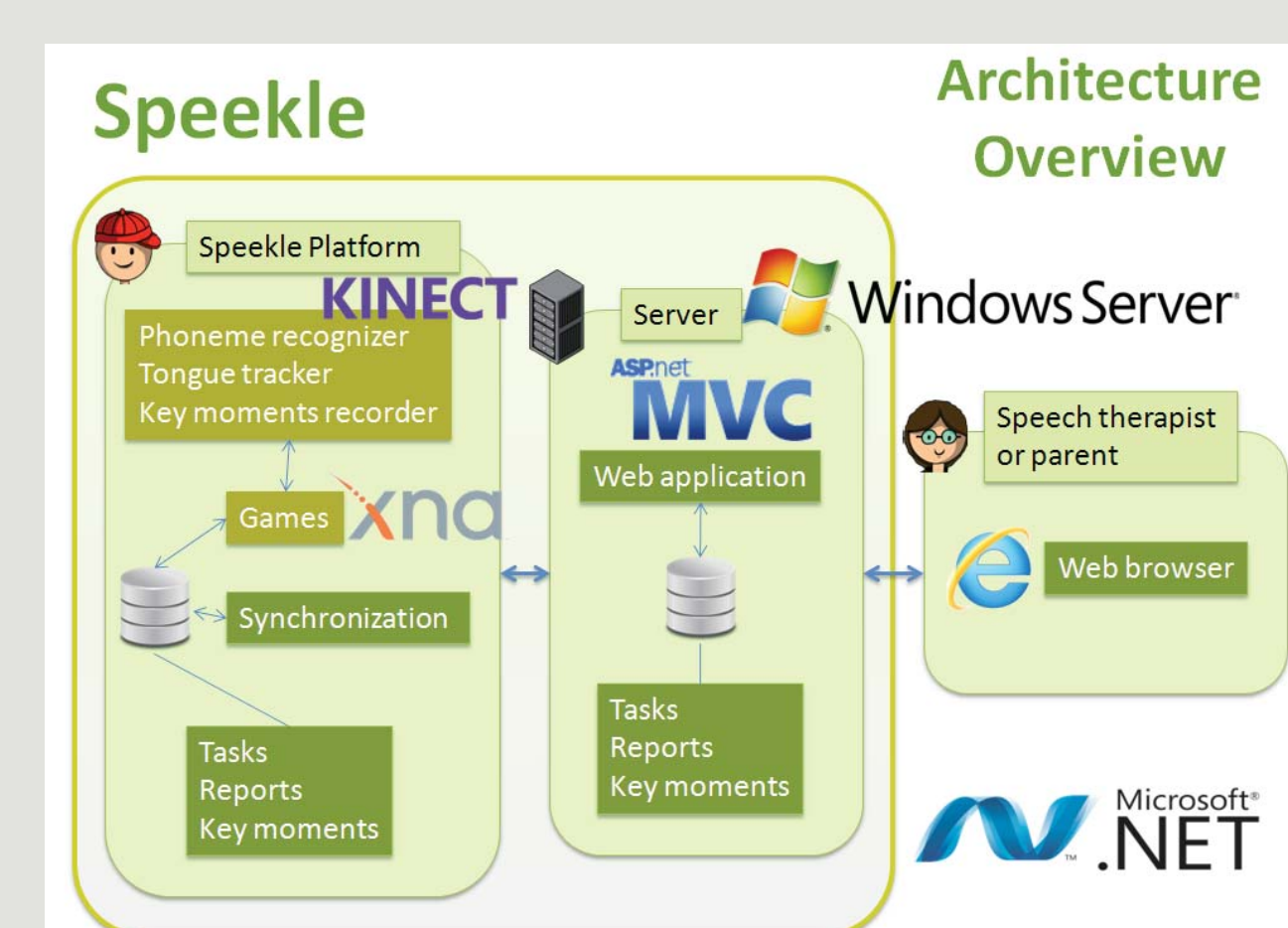
Tongue tracking

Speech therapy

- **6 000 000** children and young adults with speech or language disorder in USA
- **8 to 9%** globally
- About **40%** children in Slovak and Czech primary schools still suffer from speech disorder
- Speech therapist has **20 minutes** to spend with a child per session
- **Home exercises** are necessary

- Game platform
- Motivation
- Speech therapy support
- Tongue tracking, phoneme recognition
- Exercises integrated into gameplay
- Instant feedback

Speekle platform

Web application