Speech Corpora for Facilitating Linguistic Research and Tool Development

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LATE conver-sations

Corpus size: ~ 30 hours (320k tokens)

Data:

- Recordings of private conversations, interviews and public appearances
- Orthographic transcription
- Morpho-syntactically annotated
- Metadata added

LATE media

Corpus size: ~ 50 hours (424k tokens)

Data:

- Recordings of media broadcasts
- Orthography of Standard Latvian, observing also the principles of punctuation
- Morpho-syntactically annotated

Balsu talka

Corpus size: 277 recorded and 223 (81%) validated hours by 5,712 speakers

Data:

- Derived from the Latvian *CommonVoice17* dataset
- Pre-selected sentences read by people of different ages and nationalities
- Morpho-syntactically annotated

Bolsu tolka

Corpus size: 10k Latgalian sentences, 24 recorded (by 250 speakers) and 21 validated hours

Data:

- Derived from the Latgalian *CommonVoice17* dataset
- First manually POS-tagged and lemmatized Latgalian corpus

Nacionālā korpusu kolekcija

NoSketchEngine

Linguistic Studies

Linguistic studies:

- Pronunciation analysis of words and word combinations
- Colloquial/spontaneous speech syntax
- Sentence intonation analysis
- Lexical analysis etc.

Orthographic transcription:

Type	Label
Acronym	*ASV [ā es vē]*
Internet address	*www.rigaslaiks.lv* [vē vē vē rīgas laiks punkts el vē]
Foreign language text	<en> *schortcuts [šortkats]* </en>
Unclear text	{*teksts*} {---}
Mispronunciation	*min* nu tas labklājības ministrs*
Pronunciation variant	*četrdesmit [čēesmit]*
Vocal hesitation	(ē) (ā) (m) etc.
Inhalation	<.h>
Exhalation	<h.>
Laugh	@

Corpus Search

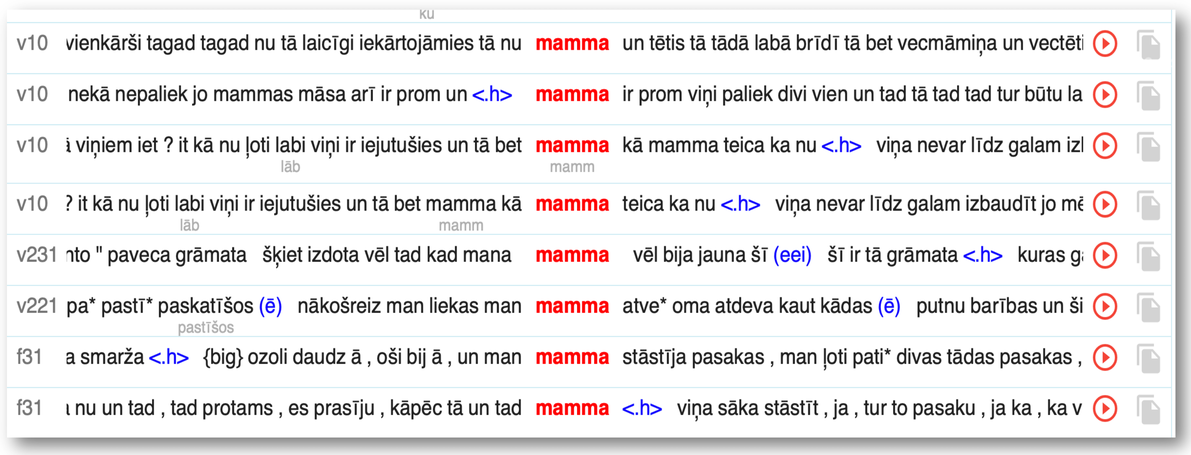
Corpora are included in the **federated search** as part of the **Latvian National Corpora Collection**.

Corpora are available for linguistic analysis via a ***NoSketchEngine*** instance.

Searching the corpus:

- For a word form or a phrase using regular expressions
- For pauses, inhalations and exhalations, laughing
- For deviations from the norms of pronunciation

Options for playback and downloading selected speech segments.



Tool Development

- Development of speech technology systems – an open source model for automatic Latvian language speech recognition (ASR) has been developed, refining the open source Whisper model.
- **https://late.ailab.lv/**
- Development of a text processing tool.
- Latvian speech recognition models: **huggingface.co/AiLab-IMCS-UL**

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RTA RĒZEKNES TEHNOLOĢIJU AKADĒMIJA

LATA

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