Creating a tool that lets people listen to Wikipedia

Sebastian Berlin

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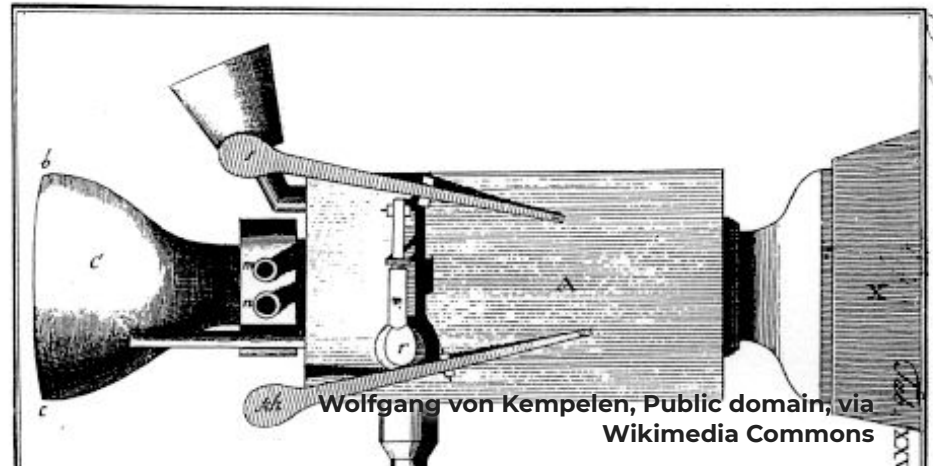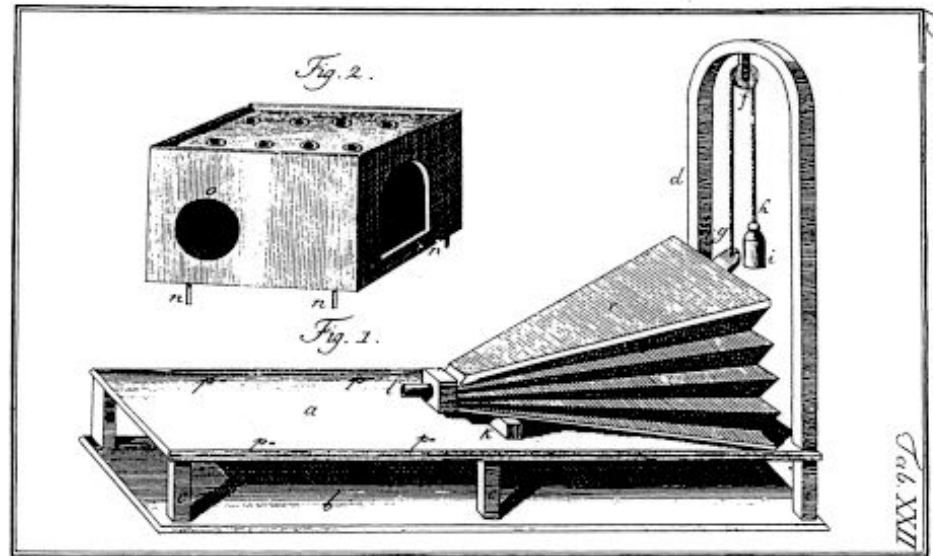
Wikimania 2021

The Wikispeech projects

Wikispeech 2016

- Initial project
- March 2016 to September 2017
- Funded by The Swedish Post and Telecom Authority (PTS)
- The goal was a text-to-speech tool for Wikipedia

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Wikispeech 2019

- Follow up project
- September 2019 to March 2021
- Also funded by PTS
- The goal was a tool for collecting speech data
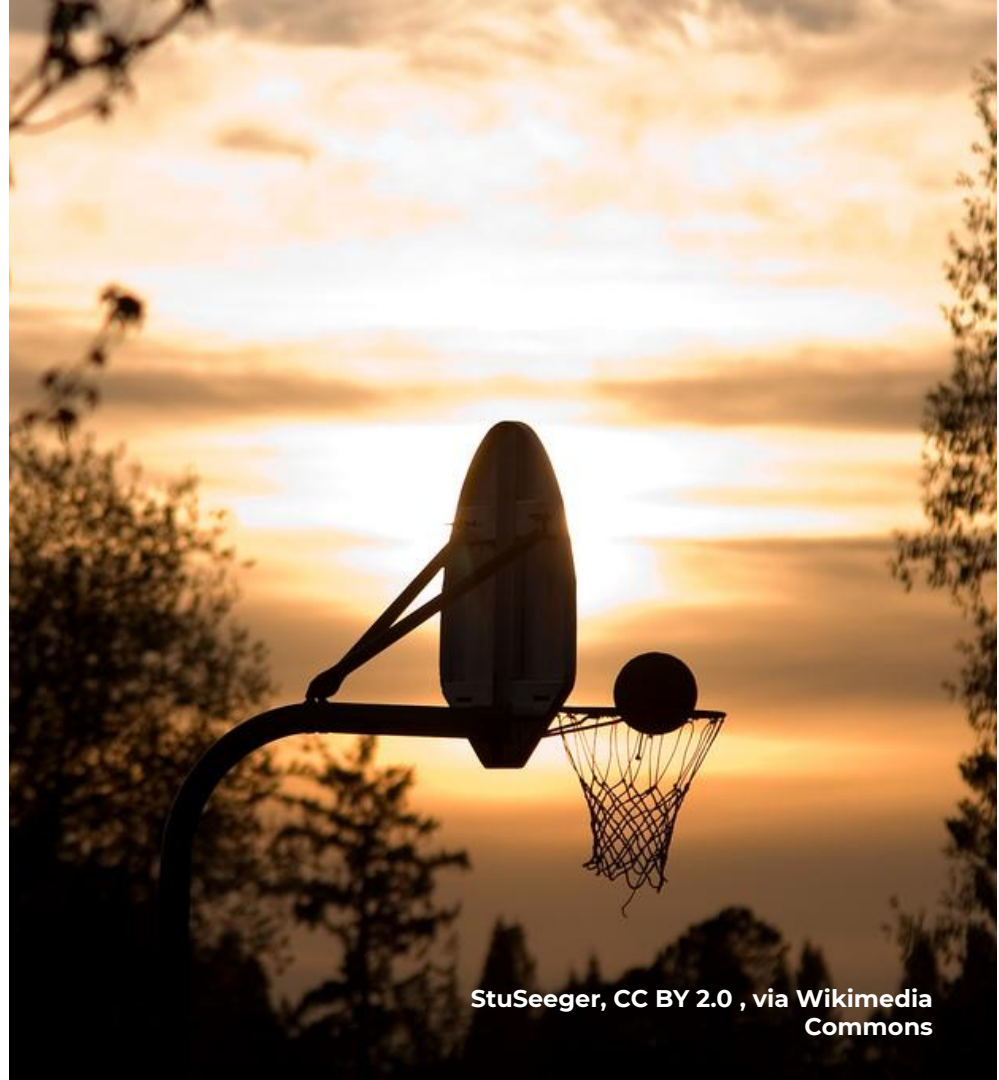- Also wrapping up Wikispeech 2016

Wikispeech text-to-speech

Wolfgang von Kempelen, Public domain, via Wikimedia Commons

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Goal

- Create a text-to-speech tool for Wikipedia
- Easily available to everyone
- Open source

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- Extendable to multiple languages
- Improvements from the community

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Motivation

- A significant amount of potential consumers prefer listening
- No freely available solution
- Tailored for Wikipedia

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Implementation

- An extension for MediaWiki
- Heavy work is done on the server
- Any modern browser is enough

- Lexicon that can be improved
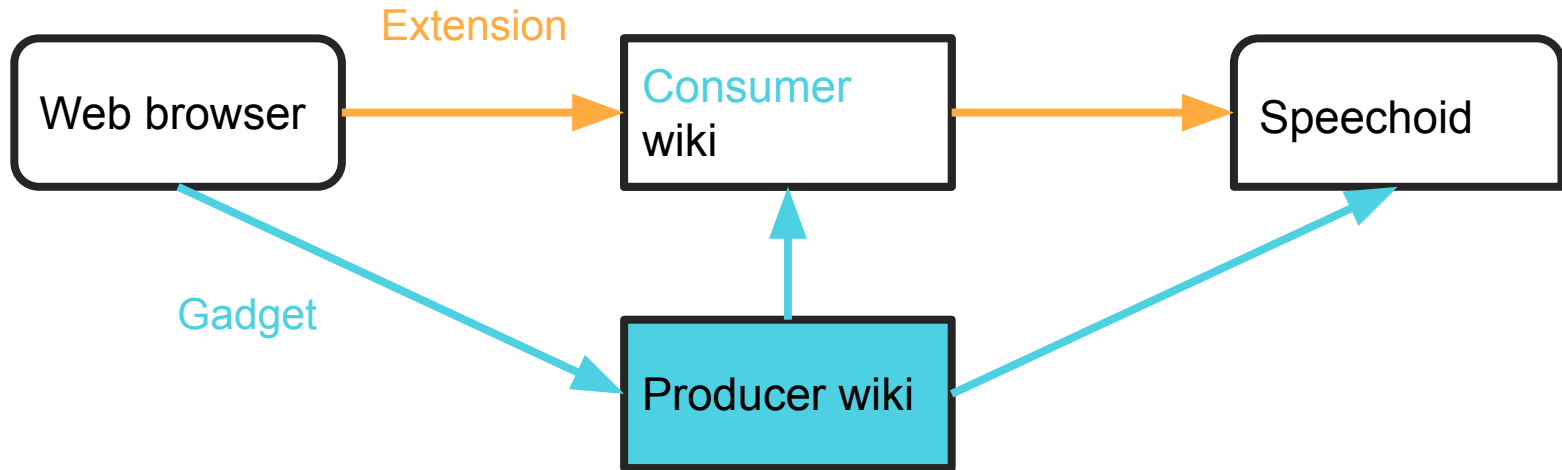- Caching of various resources

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Difficulties

- Finding good, open source TTS
- Lacking documentation for deploying extensions on Wikipedia
- WMF could not support adding to Wikipedia

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Result

- Extension for MediaWiki
- TTS Service ("Speechoid")
- Support for running as a gadget on a separate wiki
- Interface for editing lexicon

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Extension vs. gadget

Now

- Producer wiki and Speechoid hosted by WMSE
- Testing with SVWP
- Maintenance and bug tracking
- Looking for project opportunities

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Demo time!

Wikispeech speech data collector

Goal

- Create a tool for collecting speech data
- Easy to use for the Wikimedia community
- Data can be enriched for maximum usefulness

Motivation

- Lots of recorded speech required for speech technology applications
- There are not that much freely available speech data
- Improve Wikispeech TTS

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Implementation

- MediaWiki extension
- Manuscript generation
- Basic implementation in place
- Still requires work to be useable

Future

- Improve TTS
- Expand with more languages
- Finish implementing speech data collector

Tack!

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Links

- Project page:
  https://meta.wikimedia.org/wiki/Wikispeech
- Extension documentation:
  https://www.mediawiki.org/wiki/Extension:Wikispeech
- Demo wiki: https://wikispeech.wmflabs.org/

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