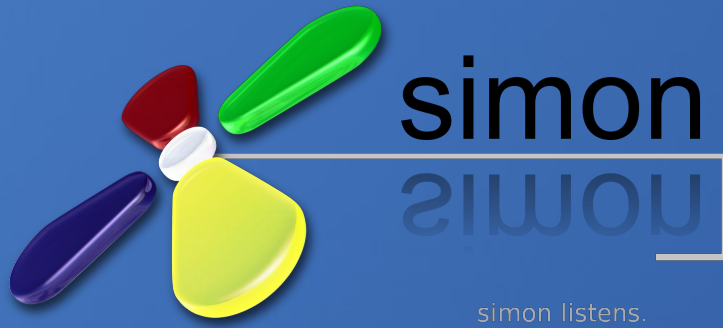


simon

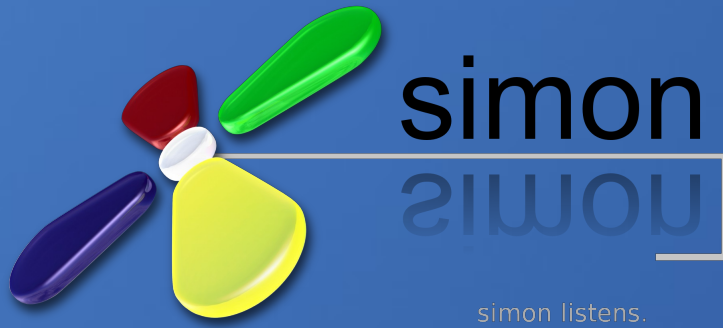
## Open-Source Speech Recognition

Developed by the non profit organization Simon Listens  
in cooperation with Cyber-Byte IT services



## Meet: David

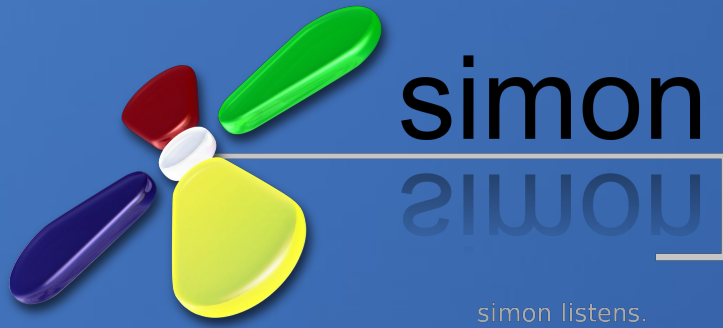
- 18 years old
- Hobbies:
  - Music
  - TV
  - Friends
  - Girls



## Meet: David

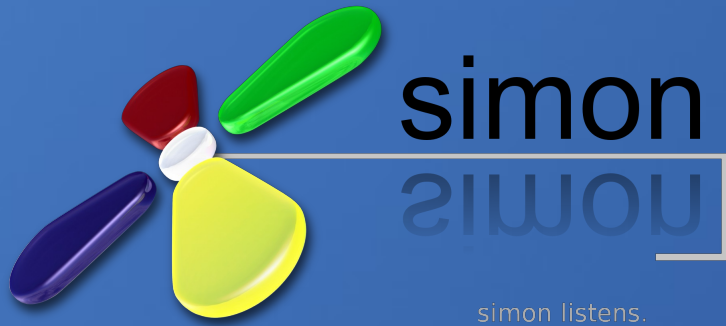
- 18 years old
- Hobbies:
  - Music
  - TV
  - Friends
  - Girls





# Meet: Everybody

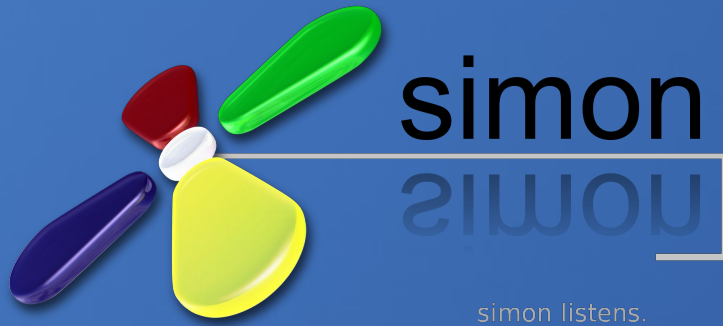




## The Challenge

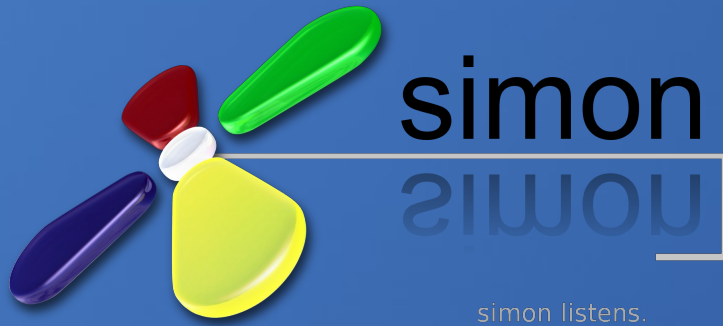
- According to EU: 6.4 % suffer from disabilities affecting their arms and hands
  - $500 \text{ million} * 6.4 \% = \sim 32 \text{ million}$
  - Reference: Finland + Norway + Sweden =  $\sim 20\text{m}$
- Same study: 0.4 % suffer from speech impairment
  - $\sim 2 \text{ million}$

Source: eurostat, [hlth\_db\_emtyag]



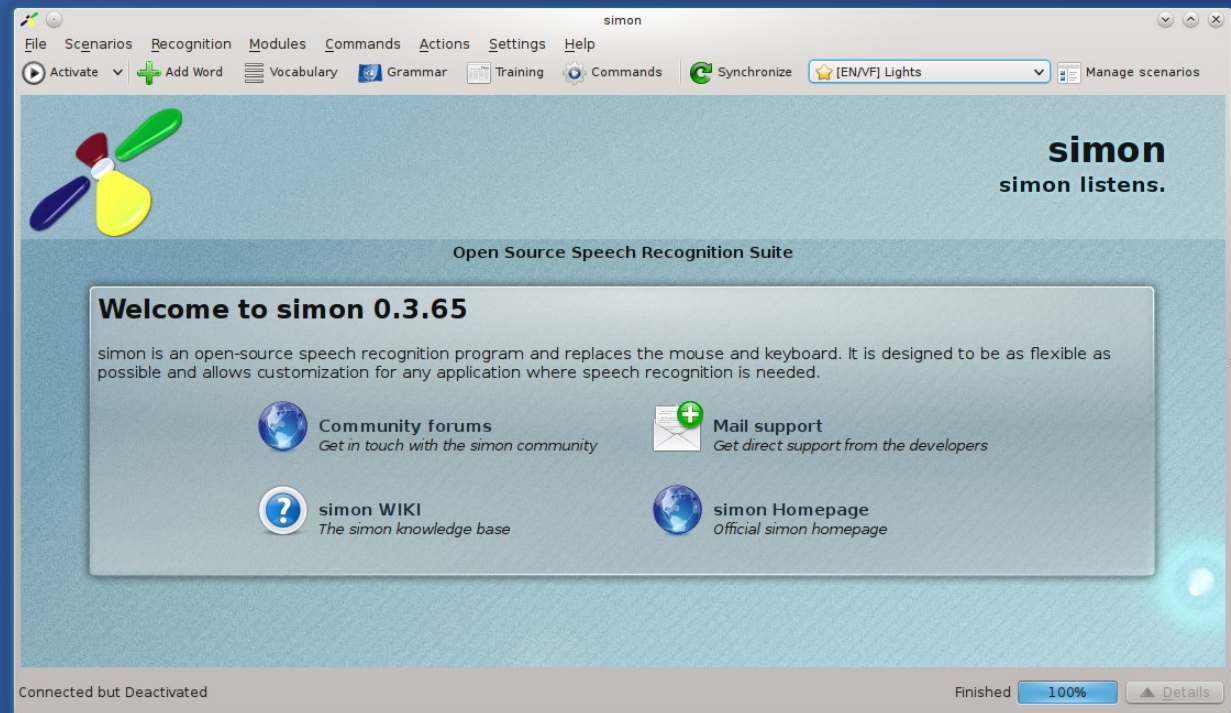
## simon: The Idea

- Speech recognition system
- Extremely flexible
  - Adapts to the user
  - Even speech impairments are no issue
  - Community: Potential
- Free software

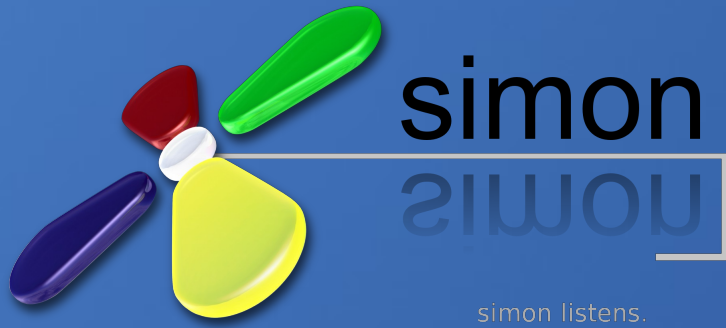


# simon: The Implementation

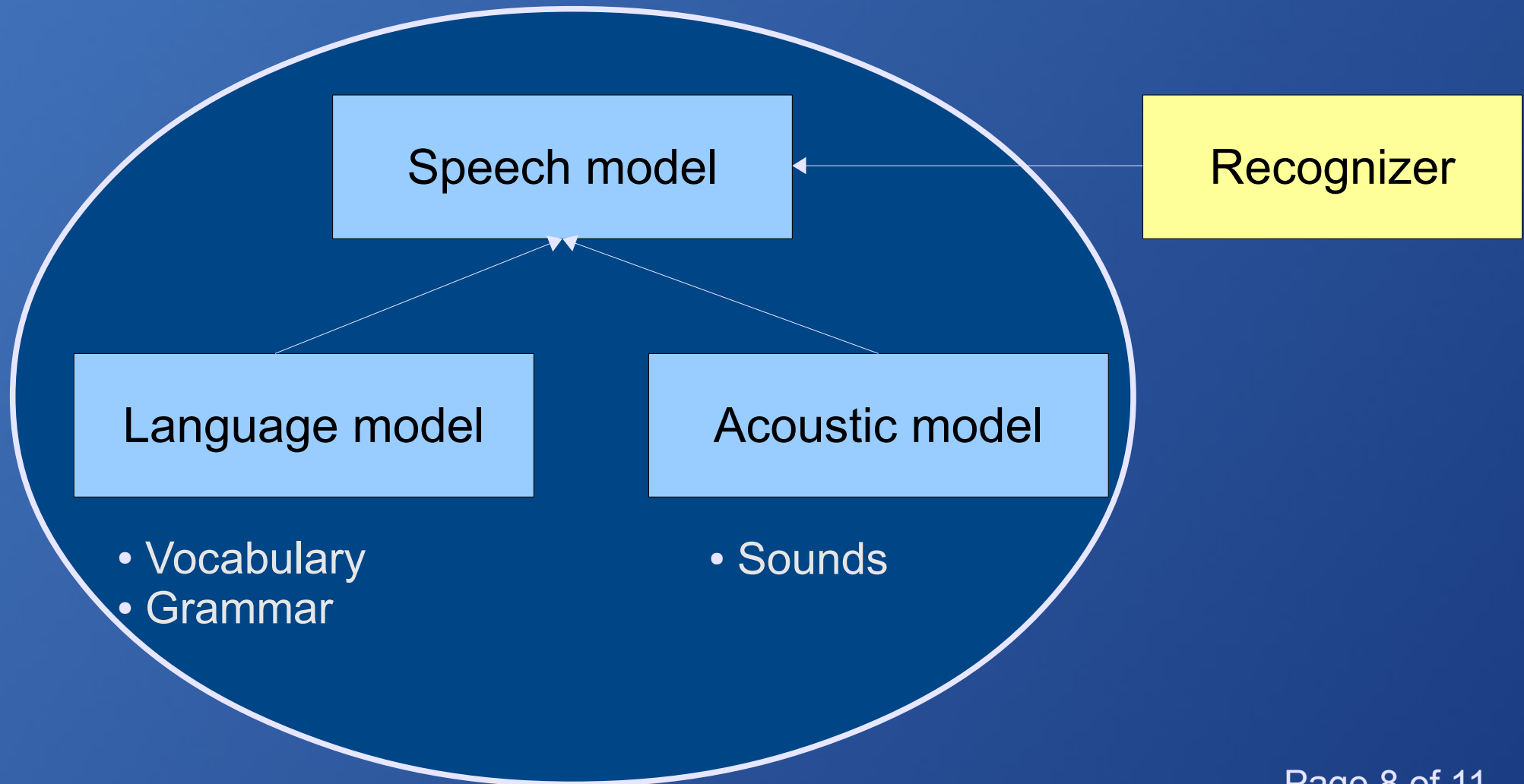
- Based on
  - Julius
  - HTK
  - KDE4
  - C++
- Supports
  - GNU/Linux
  - Windows



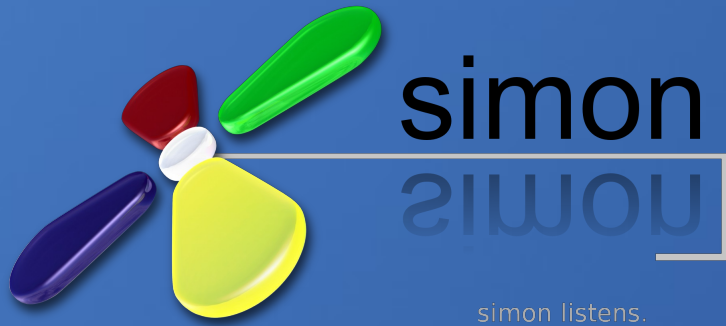




## simon: Flexibility

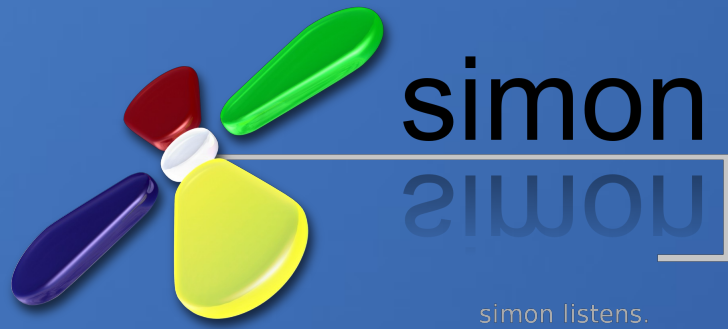




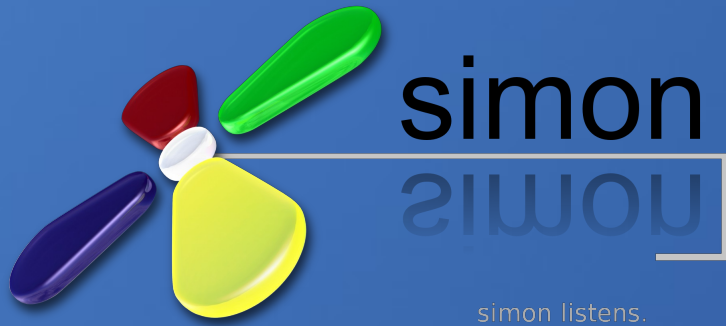


## simon: Flexibility

- Language model: Scenarios
  - „Use-case-packages“
    - Vocabulary
    - Grammar
    - Commands
    - Trainings texts
- Acoustic model: Base models
  - Static
  - Adapted



# Live Demo



## Get involved

- Donate speech: <http://www.voxforge.org>
- Create and share scenarios
- Software development
- Translation and documentation
- Contact: **support@simon-listens.org**
- Me personally: **grasch@simon-listens.org**



Questions?