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https://blogs.helsinki.fi/fcai-sig-lsc/
How do humans become intelligent?
How do humans become intelligent?

reasoning  explain
argue  understand
analyze  learn
listen  interpret

discuss  interact  read
How do **machines** become intelligent?

- reasoning
- explain
- argue
- understand
- analyze
- listen
- learn
- interpret

**Language & Speech Technology**

Automatic knowledge acquisition

complex problems

intelligent machines

listen
interact
talk

read

spoken and written human languages

level of understanding
What is special about language?

complex problems
What is special about language?

Complex problems

Speaking / explaining

(lossy) compression

(inevitable) decompression

Understanding

Spoken and written human languages
What is special about language?

complex problems

speaking / explaining

(lossy) compression

(inaexact) decompression

understanding

spoken and written human languages

interpretation requires intelligence

ambiguity is a feature (not a bug)
What is special about language?

- Complex problems
- Generating
- (Lossy) compression
- (Inexact) decompression
- Understanding
- Spoken and written human languages
Goals of the SIG
Goals of the FCAI-SIG-LSC

- to organize events that focus on the connections between language technology, cognitive science and AI development

- to support collaborations between the commercial sector and academic research institutes in the development of language and speech technology

- to provide a platform for discussing the impact of natural language processing and AI on the society to establish a research program on language, speech and cognition under the umbrella of FCAI
Who are we (so far …)

- **Helsinki-NLP**: The Language Technology research group at the University of Helsinki
- **Turku-NLP**: The NLP research group at University of Turku
- The [Speech Recognition](#) research group at Aalto University
- **Phonetics and Speech Synthesis** at the University of Helsinki
- **L.A.R.P.**: Language Acquisition, Representation, and Processing research group at the University of Helsinki
- **Discovery** research group with a focus on computational creativity and data mining at the University of Helsinki
- **CBIR**: The Content-Based Image and Information Retrieval group
- **HSCI**: Human-Sciences Computing and interaction at the University of Helsinki
- **SeCo**: Semantic Computing research group at Aalto University
- **FIN-CLARIN**: The language bank of Finland
How to get involved

Become a member

• send an e-mail to majordomo@helsinki.fi with the message
  subscribe fcai-sig-lsc your.email@helsinki.fi

• suggest and come to our events
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- suggest activities, FCAI can give financial support
- make our topics heard at FCAI
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Talk to me if you want to know more ...
WS on Language Grounding in 2019

En: A wall divided the city.
De 1: Eine *Wand* teilte die Stadt. ×
De 2: Eine *Mauer* teilte die Stadt. ✓

visual grounding

translational grounding

Image from multimodal MT at WMT
Thanks for listening!

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