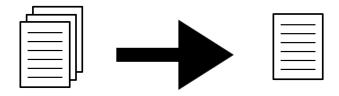
# Automatic Detection of Linguistic Quality Violations

Jonathan Oberländer

Bachelor Thesis Defense Universität des Saarlandes 21.08.2014



- ▶ Single-Document: One document
- ▶ Multi-Document: Multiple documents on the same topic

- ▶ Single-Document: One document
- ▶ Multi-Document: Multiple documents on the same topic
- ▶ **Abstractive:** Internal semantic representation + generation
- **Extractive:** New summary from source sentences

- ▶ Single-Document: One document
- ▶ Multi-Document: Multiple documents on the same topic
- ▶ **Abstractive:** Internal semantic representation + generation
- **Extractive:** New summary from source sentences

	Single-document	Multi-document
Abstractive		
Extractive		

Summarization systems should produce coherent and grammatical output.

Summarization systems don't produce coherent and grammatical output. Why?

▶ It's hard.

Summarization systems don't produce coherent and grammatical output. Why?

- ► It's hard.
- Evaluation: content, information density

Summarization systems don't produce coherent and grammatical output. Why?

- ► It's hard.
  - Evaluation: content, information density

⇒ LQVCorpus (Friedrich et al., 2014)

# LQVCorpus (Friedrich et al., 2014)

Annotated results of TAC 2011 Guided Summarization task (Owczarzak and Dang, 2011)

## LQVCorpus (Friedrich et al., 2014)

Annotated results of TAC 2011 Guided Summarization task (Owczarzak and Dang, 2011)

- Entity level:
  - ► FM-EXPL, SM+EXPL
  - DNP-REF, INP+REF
  - PRN-ANT, PRN+MISLA
  - ACR-EXPL

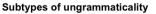
## LQVCorpus (Friedrich et al., 2014)

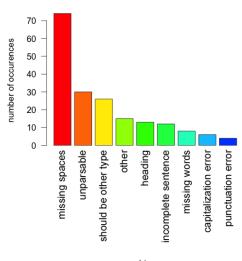
Annotated results of TAC 2011 Guided Summarization task (Owczarzak and Dang, 2011)

- Entity level:
  - ► FM-EXPL, SM+EXPL
  - DNP-REF, INP+REF
  - ► PRN-ANT, PRN+MISLA
  - ACR-EXPL
- Clause level:
  - incomplete sentence (INCOMPLSN)
  - inclusion of datelines (INCLDATE)
  - other ungrammatical form (OTHRUNGR)
  - ▶ no semantic relatedness (NOSEMREL)
  - redundant information (REDUNINF)
  - no discourse relation (NODISREL)



# Detecting Ungrammaticality (OTHRUNGR)





# detecting ungrammaticality:subtypes

# detecting ungrammaticality:unknowntokens

# detecting ungrammaticality:unknowntokens

# detecting ungrammaticality:UT\_evaluation

# detecting ungrammaticality:decision trees

# detecting ungrammaticality:evaluation

# detecting datelines

# detecting datelines:method

# detecting datelines:eval

## detecting redundancies

# detecting redundancies:method

# detecting redundancies:eval

#### References

Friedrich, A., Valeeva, M., and Palmer, A. (2014). Lqvsumm: A corpus of linguistic quality violations in multi-document summarization.

Owczarzak, K. and Dang, H. T. (2011). Overview of the tac 2011 summarization track: Guided task and aesop task. In *Proceedings of the Text Analysis Conference (TAC 2011), Gaithersburg, Maryland, USA, November.*