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# SwissText 2017

## 2<sup>nd</sup> Swiss Text Analytics Conference



**Mark Cieliebak**  
Conference Chair

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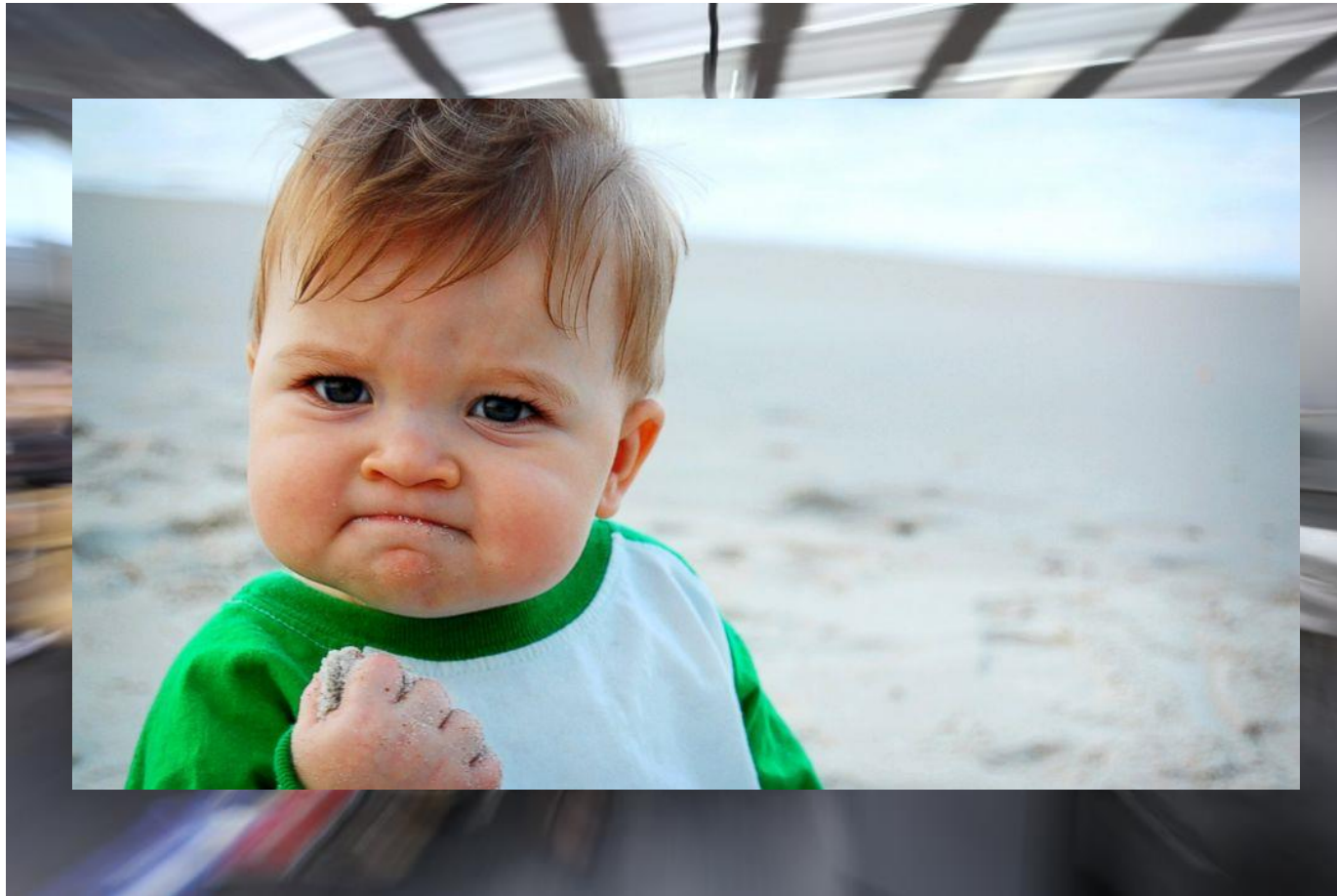
# SwissText 2017

## 2<sup>nd</sup> Swiss Text Analytics Conference

### Presented by



# How it feels to organize SwissText



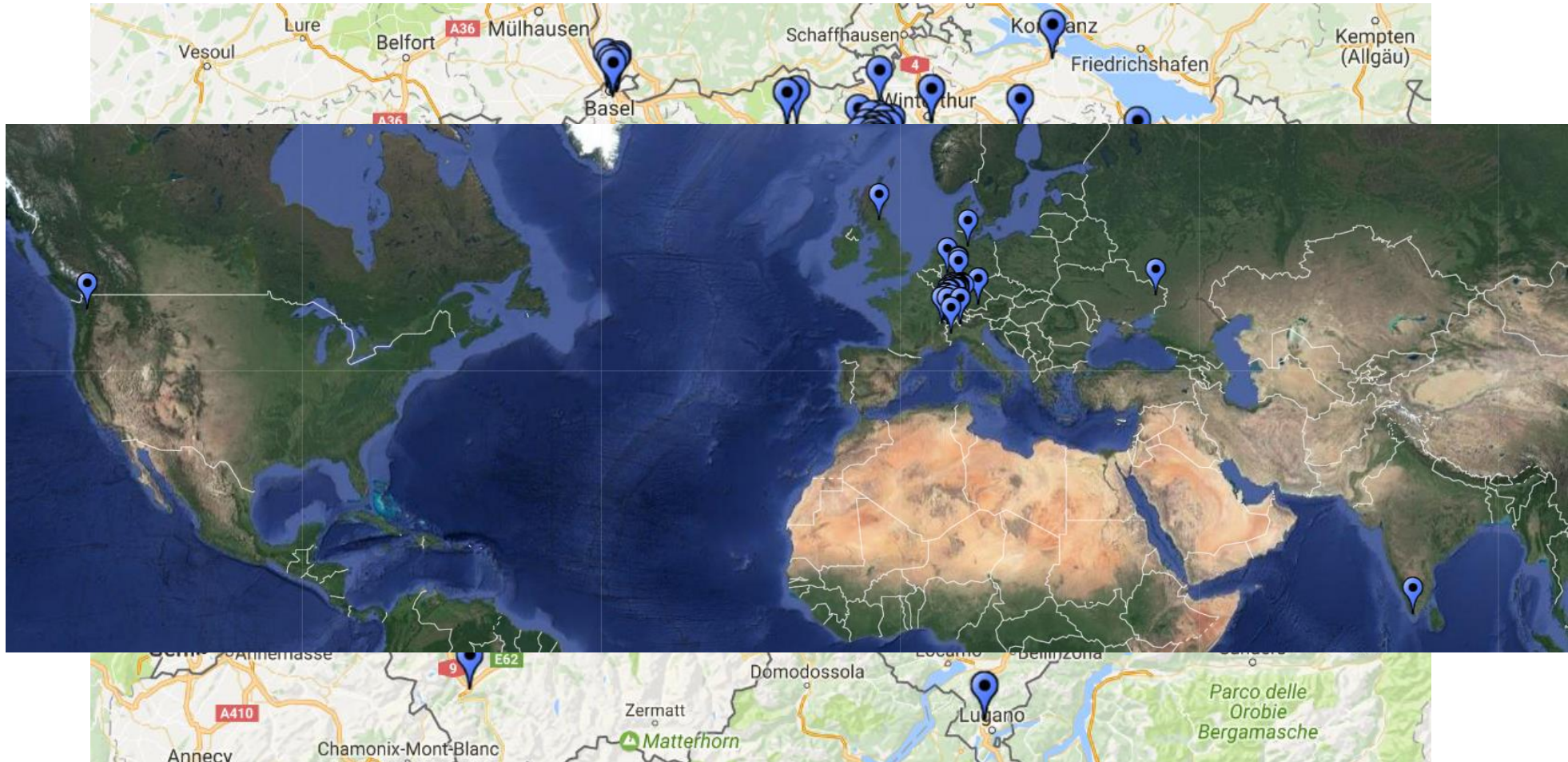
# Speed Record

240  
Seconds

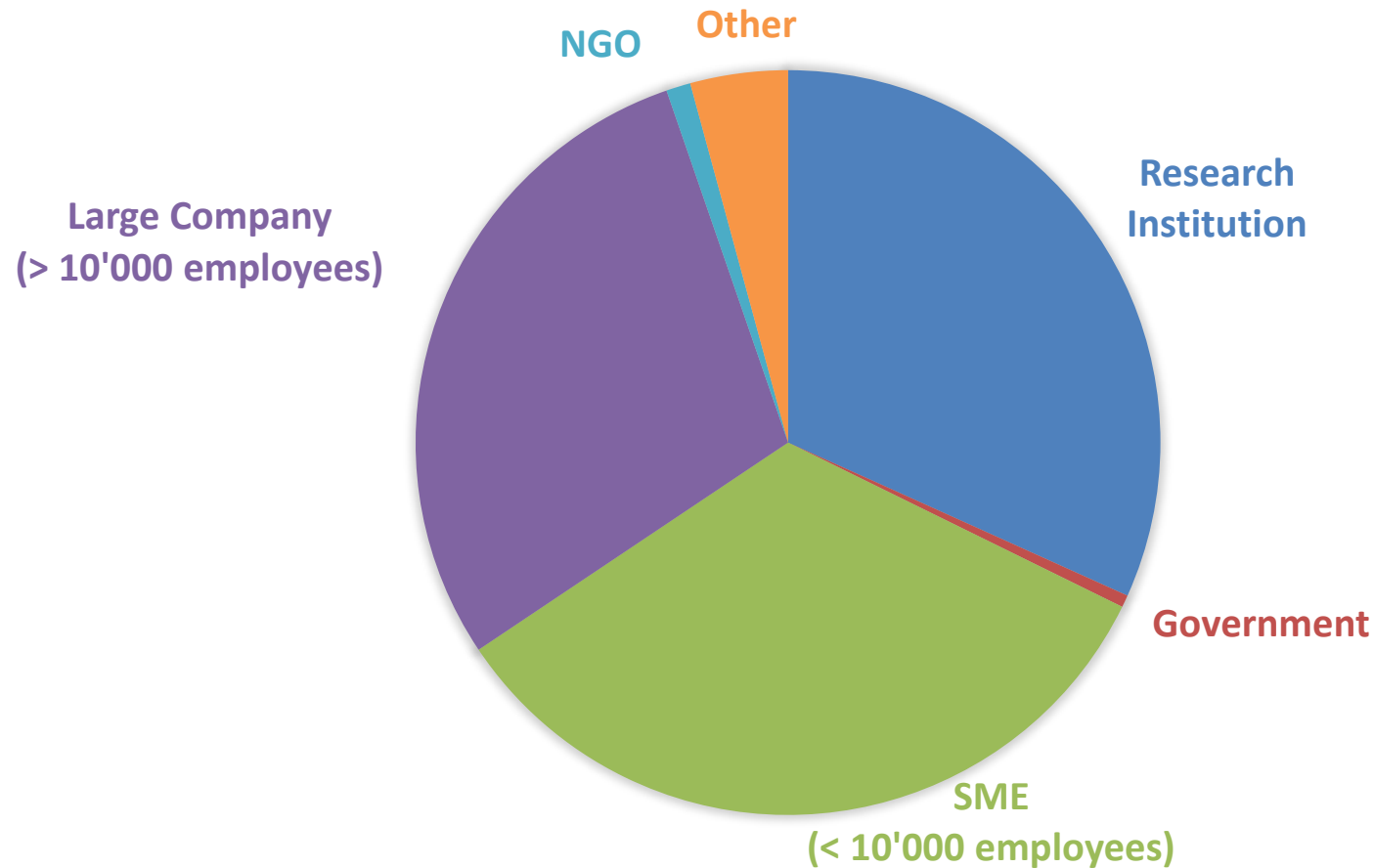


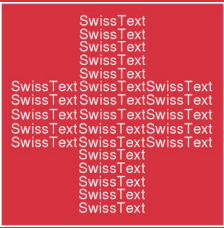


# Where do you come from?



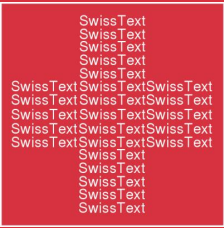
# Where do you work?





# Research Institutions

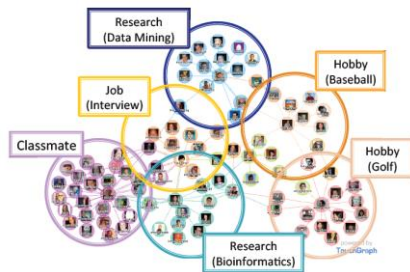
1. Bern University of Applied Sciences
2. EPFL
3. Haute Ecole - Arc Ingénierie
4. Heriot-Watt University
5. Idiap Research Institute
6. IDSIA Research Institute
7. Lucerne University of Applied Sciences and Arts
8. SUPSI Research Institute
9. University Hospital Zurich
10. University of Applied Sciences and Arts Northwestern Switzerland
11. University of Applied Sciences and Arts of Southern Switzerland
12. University of Applied Sciences and Arts Western Switzerland
13. University of Applied Sciences Darmstadt
14. University of Applied Sciences Munich
15. University of Applied Sciences of Eastern Switzerland
16. University of Geneva
17. University of Zurich
18. Uppsala University
19. Zurich University of Applied Sciences

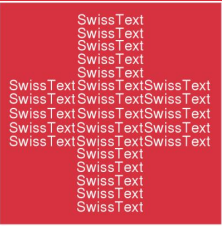


## >180 Participants from Research and.....

- 42matters AG
- areto consulting gmbh
- Argus der Presse AG
- ATEGRA
- Bedag Informatik AG
- Beekeeper AG
- Blauen Solutions - Pivotal Connections in Context
- Celi S.r.l.
- Cistec AG
- Comparis
- D ONE Solutions AG
- Deloitte Consulting AG
- DSM
- DTI AG
- Dydon
- eat.ch
- ELCA Informatik AG
- F ECTIVE AG
- F. Hoffman - La Roche Ltd
- FIND
- finnova AG Bankware
- Generali Versicherung
- IBM
- Iprova
- Jaywalker Digital
- Kottackal Business Solutions Pvt. Ltd.
- KPMG AG
- Language Box GmbH
- Liip AG
- MEAG MUNICH ERGO AssetManagement GmbH
- Microsoft
- nlyze
- Noser Engineering AG
- Novartis AG
- NZZ
- Open Web Technology
- peaq GmbH
- Perlentexter
- Plazi
- Post CH AG
- Procter & Gamble
- PwC
- RepRisk AG
- SAS Institute AG
- Semfinder AG
- SlowSoft GmbH
- SpinningBytes AG
- Supertext AG
- Swiss Re
- Swisscom
- Tamedia
- textshuttle
- turicode AG
- UBS
- Vidatics GmbH
- Wabion AG
- Wincasa AG
- Yourposition AG







# Text Analytics in a Nutshell



Text

Algorithms

Information

## Sources

- Medical research papers
- Legal texts - laws, court rulings
- Patents
- Social Media and Emails
- News
- Customer Feedback
- Websites
- Technical Documentation
- Speech Transcriptions

- Rule-Based
- Feature-Based
- Deep Learning



Value

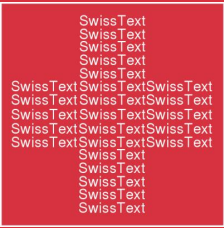


# Information

- Language Detection
- Sentence Splitting
- Tokenization
- Stemming/Lemmatization
- Stopword Elimination
- POS tagging
- Syntactic Parsing

- Rule-Based
- Feature-Based
- Deep Learning



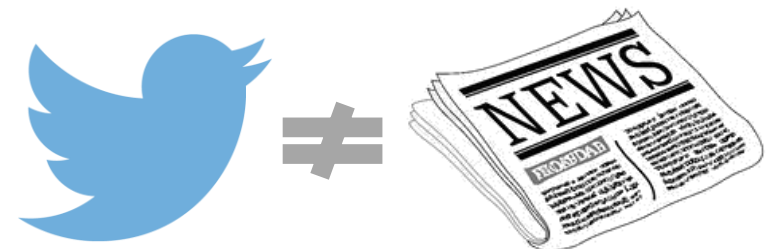


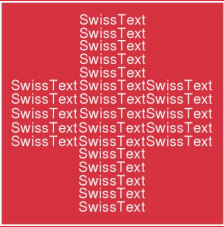
# Questions to answer before starting a text analytics project!



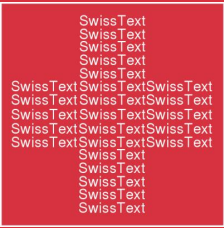
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# Are you looking at the right data?



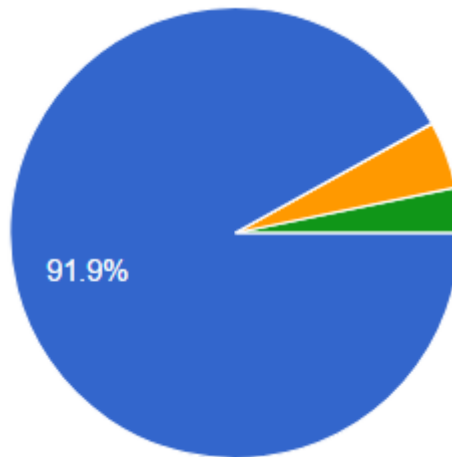


# Is your "Gold Standard" really golden?

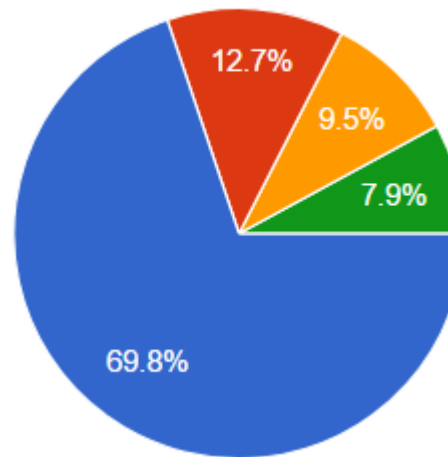


# Is your "Gold Standard" really golden?

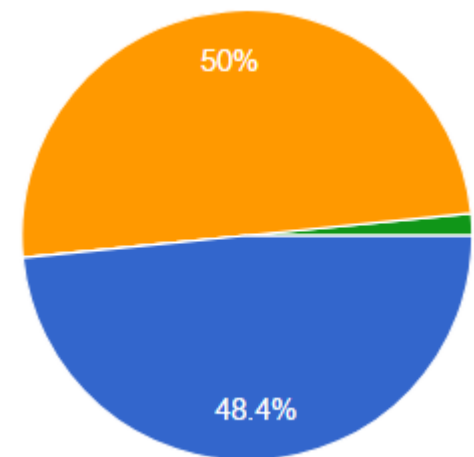
Lunch from my new  
Lil spot ...THE  
COTTON BOWL  
....pretty  
good#1st#time#will  
be going back#



Tim Tebow may be  
available ! Wow  
Jerry, what the heck  
you waiting for !



Going to a bulls  
game with  
Aaliyah & hope  
next Thursday

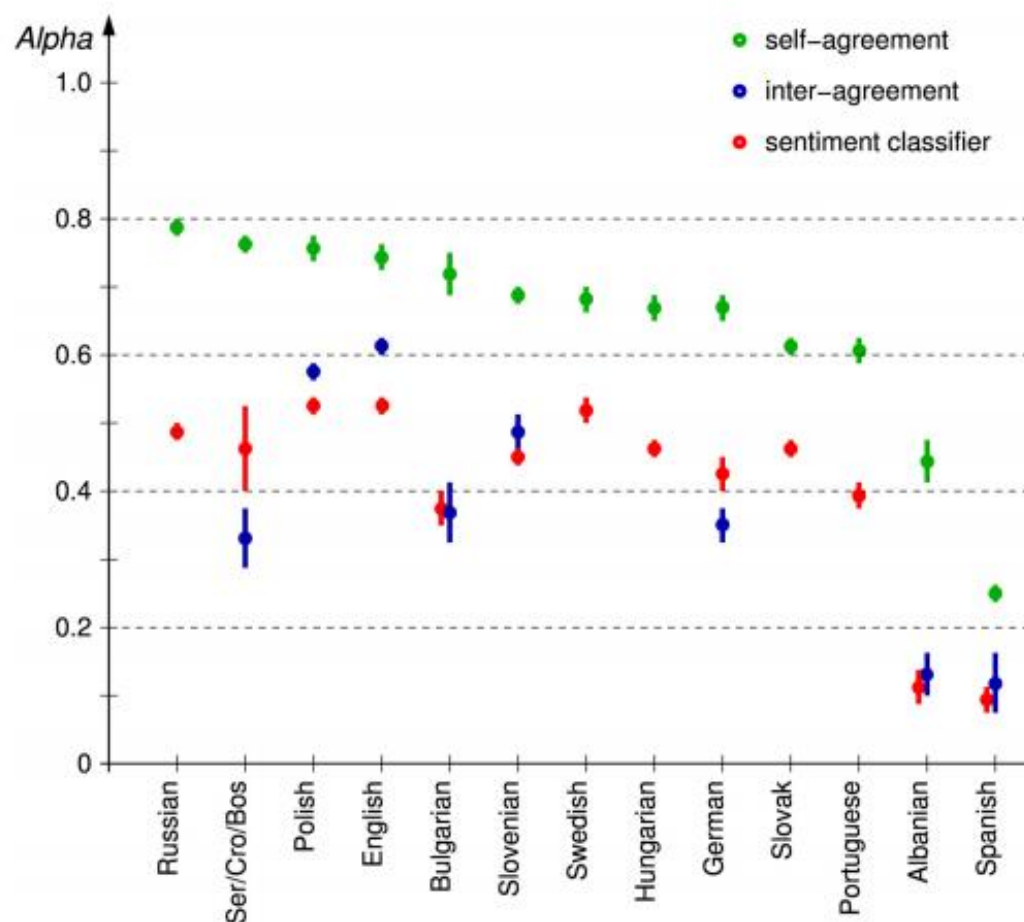


- positive
- negative
- neutral/mixed
- don't know

Setup: 69 students in MAS Data Science at ZHAW. Sentiment classification in "positive", "negative", "neutral", "don't know"



# Is your "Gold Standard" really golden?



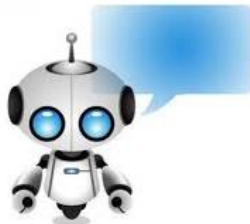
**Experimental Setting:**

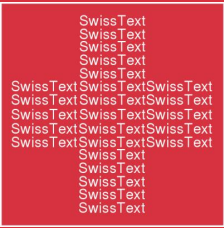
- over 1.6 million tweets
- 13 languages
- annotated with sentiment
- measured in Krippendorff's Alpha

Source: Multilingual Twitter Sentiment Classification: The Role of Human Annotators, by Igor Mozetič, Miha Grčar, Jasmina Smailović. PLOS ONE, 2015

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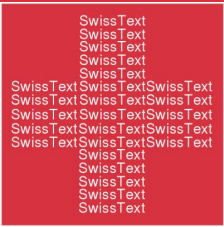
# Do you really need Deep Learning?





Is there any chance  
that you can meet  
the expectations?





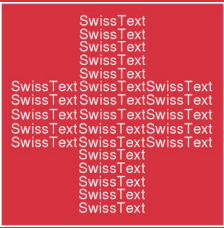
# Can you meet the expectations?

Task	Score	Measure	Dataset	Publikation
Machine Translation E->D	<b>24.17</b>	BLEU	WMT '14	Wu et al, 2016
Machine Translation E->Fr	<b>38.95</b>	BLEU	WMT '14	Wu et al, 2016
Named Entity Recognition (F)	<b>58.89</b>	F1	Cap 2017	to appear
Sentiment (E)	<b>63.30</b>	F1	SemEval 2016	Deriu et al., 2016
Sentiment (D)	<b>64.19</b>	F1	SB10k	Deriu et al., 2016
Named Entity Recognition (E)	<b>90.90</b>	F1	ConLL2003	Passos et al., 2014

Google's chatbot artificial intelligence has some interesting ... ideas about morality, philosophy and the meaning of life.

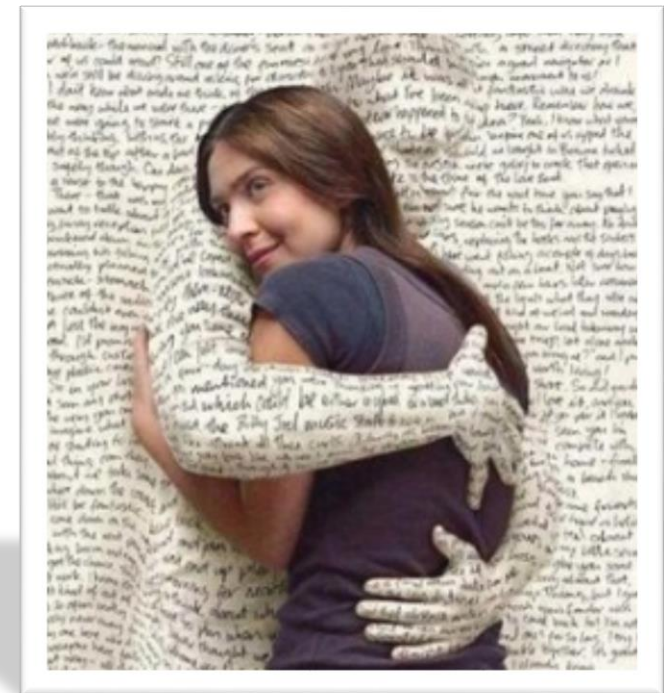
**Machine:** To find out what happens when we get to the planet earth.

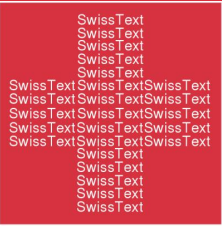
SwissText 2017. 9.6.2017



# Today's Program

- 09:00 Welcome Message: Mark Cieliebak  
09:30 Keynote: Verena Rieser
- 10:40 Parallel Tracks 1
- 11:40 *Lunch Break*
- 13:00 Parallel Tracks 2
- 13:55 Keynote: Peter Stengard  
14:35 Poster Presentations  
Poster Session
- 16:20 Keynote: Margot Mieskes  
17:00 Closing + Apero

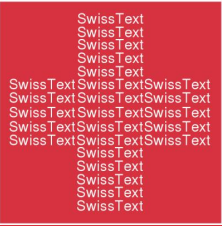




# Partners and Sponsors







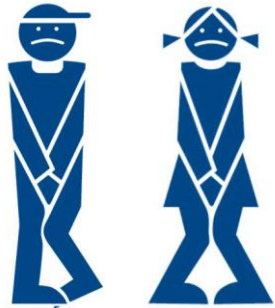
# Best Presentation Award

- Selected by the audience
- Keynote speakers not eligible

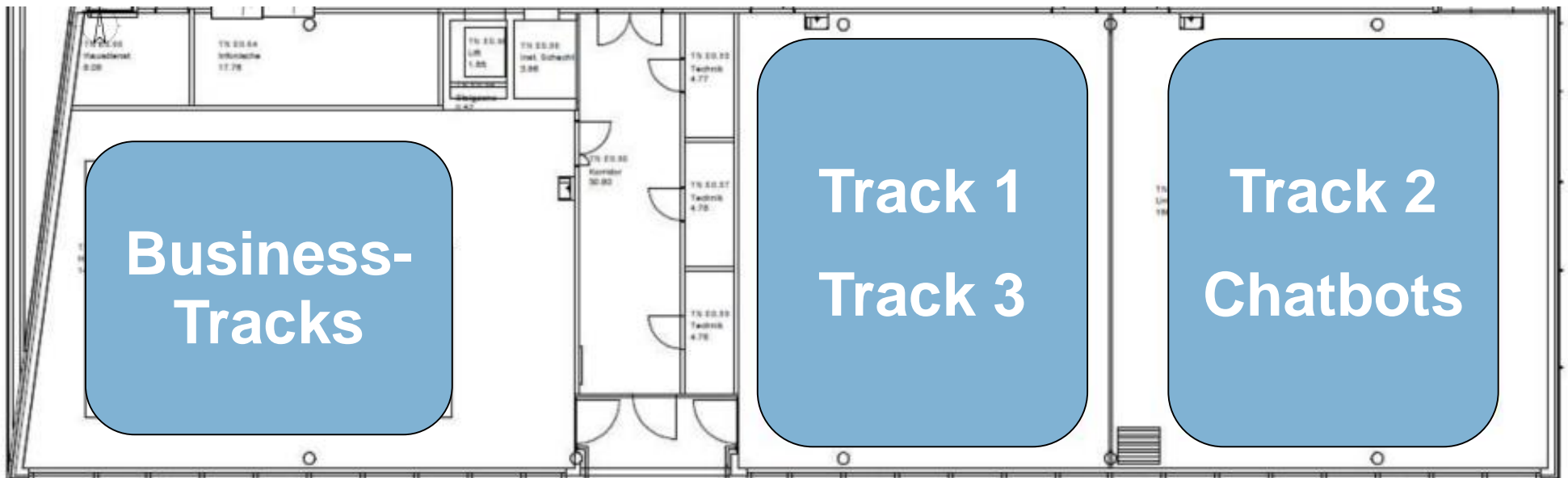


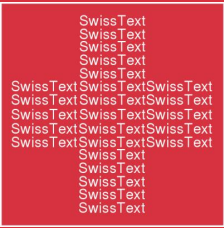
**[www.swisstext.org/2017/feedback](http://www.swisstext.org/2017/feedback)**

# Good to Know



# Tracks





# Organizing Committee



**Mark Cieliebak**



**Fernando Benites**



**Floris Staub**



**Marcin Cherek**

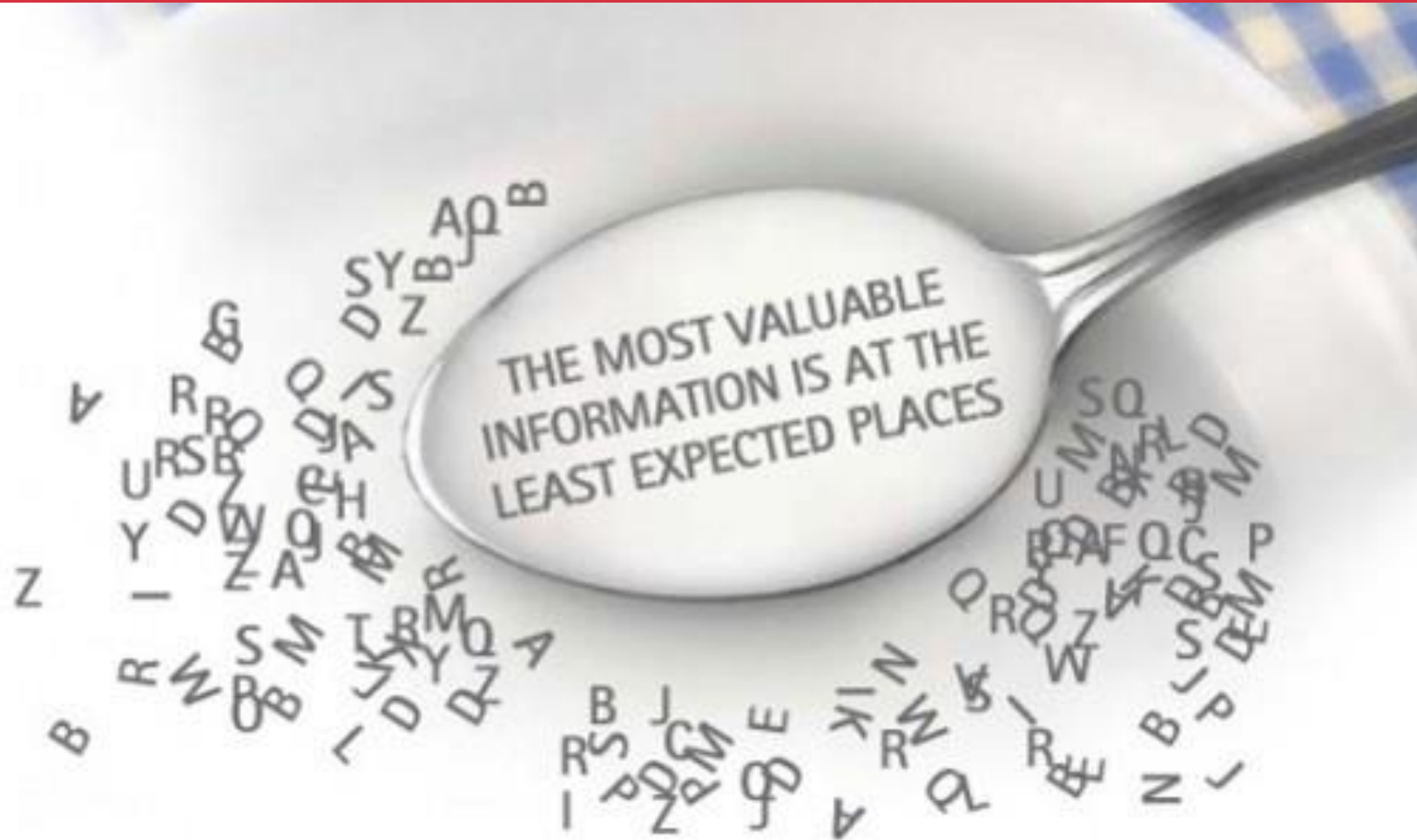


**Bettina Bhend**

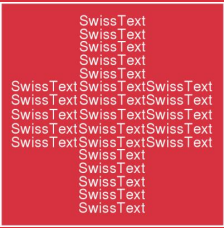
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Closing Session



# Best Presentation Award

**Score: 4.7**

**Hamza Harkous**

**Pribot: A Chatbot for Privacy Policies**





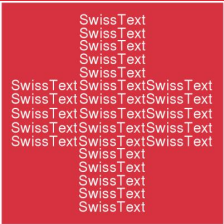
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# Time for Aperò!

