



Swisstext 2016

1st Swiss Text Analytics Conference

Program

8th June 2016

Preface



A Swiss conference just about automatic text understanding!

The idea for SwissText was born soon after SDS 2015, where we successfully organized an interactive track on Twitter analysis. But would there really be sufficient interest for a stand-alone conference? Initially, we were hoping for merely 50 participants and some talks from our close community. Instead, we were positively overwhelmed: The first SwissText conference is supported by over 15 research groups and sponsors, we have posters and presentations from global and national industrial giants (Google, IBM, Swisscom etc.), top speakers, and more than 130 participants! This is amazing, and I am very proud to chair this conference!

One major goal of SwissText is to give an overview of existing solutions and technologies in automatic text understanding. For this reason, the program committee has decided to additionally introduce a poster session where all submissions that were not selected for a talk can be presented, in order to give a really broad overview of what is going on in Switzerland in text analytics.

As you can see in the program, we have planned for several longer breaks. This will give you ample time for open and interesting discussions with other participants and experts, to come up with fruitful ideas for innovative projects using automatic text understanding.

There was a tremendous amount of work necessary to make this conference happen, and I would like to thank the program committee and the local organizing committee here at ZHAW for their support and great work! A special thanks goes to CTI, who already agreed to fund the conference when it was still a rough idea.

I am now looking forward to an exciting meeting with fascinating presentations and lots of interesting discussions!

Mark Cieliebak

Conference Chair

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Schedule

09:00	Registration + Coffee/Gipfeli	
09:30	Welcome Message: Mark Cieliebak (ZHAW)	
10:00	Keynote: Paolo Rosso (Universidad Politécnica de Valencia)	
10:45	Survey Session 1	
	– Hatem Ghorbel: <i>Feature-based sentiment analysis in social media</i>	
11:10	Break	
11:40	Keynote: Jürg Attinger (CTI)	
12:10	Survey Session 2	
	– Martin Jaggi: <i>Deep Learning for Text - From Word Embeddings to Convolutional Neural Networks</i>	
	– Nora Hollenstein and Tania Stephan: <i>IBM Watson and the languages of Switzerland</i>	
13:00	Lunch Break	
14:00	Track 1:	Track 2:
	– René Haltiner, Michel Plüss, Simon Felix, Jonas Schwammberger, Michael Kalt, Manfred Vogel: <i>Automated Drug Safety Processing</i>	– Jose Iria, Mirco Rossi, Torsten Butz, Gundula Heinatz: <i>Information Extraction for Reinsurance of Pension Funds</i>
	– Fabio Rinaldi and Lenz Furrer: <i>Knowledge Discovery through Text Mining of the Biomedical Literature</i>	– Roberto Nespeca: <i>Statistical machine translation has reached industrial maturity – Do's and Don'ts for managers</i>
	– Gerold Schneider and Michi Amsler: <i>Linguistically Motivated Trend Identification</i>	– Fatemeh Borran: <i>Echo: Swisscom Customer Feedback Analyzer</i>
15:15	Afternoon Break	
15:35	Poster Session	
16:05	Keynote: Katja Filippova (Google)	
16:50	Closing	
17:10	Apero	

Paolo Rosso

Author Profiling in Social Media: The Impact of Emotions on Age and Gender

Abstract. Given a text, what are its author's traits? Is it possible to predict author's demographics from her writing style? How language is shared by people may help in identifying profiling aspects such as gender, age, personality type, native language, or dialectal variation. Author profiling is the study of how language is shared by people, a problem of growing importance in applications in security and marketing. For instance, from a marketing viewpoint companies may be interested in knowing, on the basis of the analysis of online product reviews, the demographics of people that like or dislike their products. The aim of this talk is to analyse how the use of language varies among classes of authors, depending on their age and also on their gender. The focus is on author profiling in social media since we are mainly interested in everyday language, e.g. in online product reviews. Authors express their emotions differently depending on their age and gender when writing in social media, and taking into account this aspect from a discourse analysis perspective (i.e., bearing in mind not only their frequency of occurrence, but also their position and relationship with other elements of the discourse) helps in profiling aspects such as gender and age. We will compare the results obtained by EmoGraph, a graph-based approach, to state-of-the-art approaches of the PAN shared task on author profiling.

Biography. Paolo Rosso (<http://www.dsic.upv.es/~pross/>) is an associate professor of computer science at the Universitat Politècnica of València and is a member of the Pattern Recognition and Human Language Technology (PRHLT) research centre. His research interests include author profiling and irony detection in social media, opinion spam detection, as well as text reuse and plagiarism detection. Since 2009 he has been involved in the organisation of PAN benchmark activities on plagiarism / text reuse detection and author profiling, since 2010 and 2011 in the framework of CLEF and FIRE evaluation forums. He has been also co-organiser of the shared tasks on sentiment polarity classification at Evalita and on sentiment analysis of figurative language in Twitter at SemEval-2015.



Organization. Universitat Politècnica of València

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Jürg Attinger

Innovation is the Motor for your Success – CTI the Motor for your Innovation

Abstract. Switzerland is well known all over the world to have one of the best education and research landscape. Part of this success is the the well driven research activities at different facilities, the very active industry and the traditionally very open and trustful mindset in all business relationships in Switzerland. Knowing that the education and research systems are equipped with good funding it is absolutely necessary to take some “Marketing” activities to get the best out of the investments into education and to build up strong partnerships between the Economy and the Research Facilities. This is the interface, where the activities of the CTI (Commission for Technology and Innovation) located. This lecture will give a little insight into the mechanisms on how SME's can find access to the research result, how they can take profit from the latest findings and what the efforts could be. Maybe it's faster and easier, than you thought.

Biography. Jürg Attinger, Masch. Ing. FH, is by education a Precision Mechanic and Mechanical Engineer, but since long years in Medical Device Business. He was in different roles, but always committed to innovation, new products and new business fields. He was the initiator of a generation of ophthalmic instruments, which became the most successful product portfolio for many years. 2013 he founded own business and is again committed to innovation not only in the role as a CTI-Innovation Mentor, but also with own ophthalmic surgical products, with licensing out own patents and in offering consulting services in Medical Device Engineering.

Organization. Commission for Technology and Innovation (CTI)

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Katja Filippova

Natural Language Understanding at Google: An Overview of Research Topics

Abstract. Google's mission is to organize the world's information and to make it universally accessible and useful. In this talk I will demonstrate that understanding natural language is essential for fulfilling this mission and provide examples of why natural language processing (NLP) is an important research area for Google. In the first part of my talk I will give an overview of NLP tools and applications being developed across the company. In the second part of the talk I will focus on a few topics that the NLP research team in Zurich has worked on: Information extraction, in particular, event recognition, and text summarization.

Biography. Katja Filippova is a research scientist at Google. She holds a Ph.D. from the Technical University of Darmstadt (2009) and a MA from the University of Tübingen (2005). During her Ph.D. she was supported by the Klaus Tschira Foundation and was affiliated with the EML Research in Heidelberg (now the Heidelberg Institute for Theoretical Studies). She has worked on applying statistical methods to text summarization, understanding user-generated content and information extraction.



Organization. Google

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Hatem Ghorbel

Feature-based sentiment analysis in social media

Abstract. Sentiment analysis aims to define the opinions and subjective expressions in terms of positive or negative sentiment. Typically, sentiment analysis proceeds on the basis of opinionated texts produced on web-based social platforms. Applications include review polarity classification, opinion search/retrieval, product and service benchmarking, and consumer opinion analysis about commercial products. An approach that goes deeper than classifying texts into positive and negative sentiments is referred as feature-based sentiment analysis. The goal of featured-based sentiment analysis is to extract the set of product features that are commented on, and to define their respective sentiment orientation. Feature-based sentiment analysis is quite useful in social media monitoring as it allows to gain detailed public opinion and insights on targeted topics and brands. Examples of restaurant reviews analysis from Yelp social network and wine reviews from the Coop Mondovino corpus will be given.

Biography. Dr. Hatem Ghorbel is a professor of computer sciences at the HES-SO. He has a strong academic experience in the field of NLP and is a leader of several theoretical and applied research projects. Recently, he has been interested in the content analysis of social media and developed tools for French/English sentiment analysis. His domain of interest includes statistical approaches, machine learning techniques, and linguistic modeling. He is the author of more than 25 scientific articles.

Organization. University of Applied Sciences Western Switzerland - Haute Ecole ARC Ingénierie

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Martin Jaggi

Deep Learning for Text - From Word Embeddings to Convolutional Neural Networks

Abstract. We provide a short survey on recent methods for text analysis. Word embeddings map each word to a numerical representation in space, while still conveying their meaning. Such embeddings can be used in various applications, and provide powerful features as an input for more advanced machine learning methods for many applications. In the second part of the talk, we will discuss some recent neural network architectures, which can deliver representations for entire sentences and documents. In particular, we show how convolutional neural networks on top of word embeddings combined with distant supervised training can achieve the world best accuracy for text classification, in the example of sentiment analysis on Twitter.

Biography. Martin Jaggi is a post-doctoral researcher in machine learning at ETH Zurich. Before that, he was a postdoc in Berkeley, US, and Paris, France. He has earned his PhD in Machine Learning and Optimization from ETH Zurich in 2011. He is broadly interested in methods for the analysis of large datasets, distributed training algorithms, open source software and machine learning applications for example in medicine, computer vision or text analysis.

Organization. ETH Zurich

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Nora Hollenstein and Tania Stephan

IBM Watson and the languages of Switzerland

Abstract. IBM Watson is a cognitive technology platform that uses natural language processing and machine learning to reveal insights from large amounts of unstructured data. IBM Watson provides various offerings to make text analytics available across all industries. Past and current use cases show that support for the languages spoken in Switzerland – from German to Romansh – is a challenge that we want to take on. We would like to present Watson's underlying technologies by showing projects that deal with Speech Recognition, Natural Language Understanding and Information Extraction to describe the capabilities of this product. Moreover, we want to pay particular attention to topics related to multilingual text analytics, which we face in connection with the languages spoken in Switzerland.

Biography.

Nora Hollenstein:

- NLP Specialist
- Experience in text analytics projects in research & industry
- Working for IBM since 2015 and involved in many Watson projects

Tania Stephan:

- Watson Program Manager
- Manages various projects in Europe
- Working for IBM Watson since 2011

Organization. IBM

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René Haltiner, Michel Plüss, Simon Felix, Jonas Schwammberger, Michael Kalt, Manfred Vogel

Automated Drug Safety Processing

Abstract. We describe the architecture and choice of algorithms for an automated processing of Adverse Drug Reports (ADR). Pharmaceutical companies are legally obligated to monitor adverse drug reactions and report them to the national drug regulatory authorities. Due to the variety of data sources and formats these reports are mainly manually processed and mapped onto the standardized CIOMS form (Council for International Organizations of Medical Sciences). Key features of this form are recurring elements like health care professionals, drugs, diseases and patients. Our objective is the automatic processing of these documents which by regulation have to be written in English. In order to process free text we use OCR, named entity recognition and other NLP tools. Attributes like medical tests, findings and treatments are strongly interlinked and can be represented by an ontology. The processed data is validated by machine learning algorithms and finally exported to the CIOMS form.

Biography.

René Haltiner:

- Study of veterinary medicine in Berne (1995-2000)
- Molecular biological investigations to get promotion to Dr. med. vet. (1998-2001)
- Study director in toxicology (2001-2003)
- Clinical scientist (2003-2004)
- Drug safety scientist (2004-2009)
- Head of Drug Safety Operations (2009-2012)
- Pharmacovigilance Director (2012-2015)
- Founding of Conceptual Process Solutions GmbH (2013)
- Development of automated Drug Safety Service (2013-2016)

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Jose Iria, Mirco Rossi, Torsten Butz, Gundula Heinatz

Information Extraction for Reinsurance of Pension Funds

Abstract. The Insurance business is rife with processes that require the analysis of complex documents such as policies, claims, and regulations. At Die Mobiliar, we are currently tackling an open problem in the domain of reinsurance of occupational pension funds. Having grown increasingly competitive over the years, the market for reinsurance of pension funds operates on much tighter margins today than it used to, leading Die Mobiliar to seek competitive advantage through the use of text mining in an attempt to automate, insofar as possible, what is an otherwise extremely time-consuming and error-prone manual process: that of reading, understanding and extracting information from pension fund regulations. We are developing a hybrid rule/machine learning-based approach to this problem, consisting of a pipeline of OCR, linguistic pre-processing, segmentation, entity extraction, relation extraction, table extraction and template filling. We would welcome experts' advice on several open issues.

Biography. The Smart Analytics team of Die Mobiliar is a recently formed group of 6 data scientists aimed at improving process efficiency and generating insight for new business opportunities from internal data. Jose Iria holds a PhD in Computer Science from The University of Sheffield, UK, and has over 30 publications in the area of Machine Learning-based Text Mining. Mirco Rossi holds a DSc in Computer Science from ETH Zurich has over 10 publications in the area of Machine Learning for Wearable Computing.

Organization. Smart Analytics team, Die Mobiliar

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Fabio Rinaldi and Lenz Furrer

Knowledge Discovery through Text Mining of the Biomedical Literature

Abstract. The goal of biomedical text mining is to automatically analyze the scientific literature in order to extract entities such as drugs, diseases, genes, and their relationships. Biomedical text mining is of great relevance for the pharmaceutical industry. On average, it costs about 1 billion dollars to develop a completely new medicinal drug, and it involves the work of hundreds of researchers. Text mining can help better target such experiments. The OntoGene group has developed a platform for advanced text mining applications, which sources its lexical resources from life sciences databases, thus allowing a deeper connection between the unstructured information contained in the literature and the structured information contained in databases. The quality of the system has been tested several times through participation in some of the community-organized evaluation campaigns, where it often obtained top-ranked results.

Biography. Fabio Rinaldi is a senior researcher at the University of Zurich. His main research focus is on biomedical text mining. He coordinates an SNF project dedicated to large-scale extraction of information from the biomedical literature. He is also involved in a number of related projects, including a large scale NIH-funded initiative on semi-automated assisted curation of the biomedical literature.

Lenz Furrer is a PhD student at the Institute of Computational Linguistics, University of Zurich. Currently, he is engaged in an SNF project in the area of biomedical text mining. He has studied Computational Linguistics and Comparative Indoeuropean Linguistics at the Universities of Zurich and Gothenburg. In the past, he has worked in different collaborative research projects in the context of the OntoGene group.

Organization. University of Zurich

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Roberto Nespeca

Statistical machine translation has reached industrial maturity – Do's and Don'ts for managers

Abstract. Translators and translation resources are very valuable. That's why – in cooperation with the University of Zurich's Institute of Computational Linguistics – Finnova AG has developed a translation system for helpdesk tickets that are shipped in its release letters to their customers as part of the monthly software package updates. This very successful project has led to a surprisingly robust, simple and universal solution that has not only cut the German to English translation production costs by 30% with the same quality, but also integrated seamlessly into existing computer-aided translation workflows. There is no doubt that statistical machine translation solutions have reached industrial maturity and can be adopted for real life problem solving relatively easily – provided that management expectations and project scopes are aligned accordingly. We offer a glimpse behind the scenes and show hands-on how we got there.

Biography. Roberto Nespeca is Head of Document Management, the language competence center at finnova AG Bankware. Current fields of interest include language and information technologies, content management and big data, software localisation as well as translation and terminology service frameworks.

Organization. finnova AG Bankware, Institute of Computational Linguistics - University of Zurich

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Gerold Schneider and Michi Amsler

Linguistically Motivated Trend Identification

Abstract. The study of attention to political issues over time correlates with the salience of topics in media. Trends are typically identified by keyword frequencies and document classification approaches. Our current research is motivated by the fact that words and language themselves change over time. First, we track the introduction of new terms, which are typically multiword terms. We detect their fixation, such as PPs turning into fixed NP constructions (e.g. change of climate turning into climate change). New terms are often used to describe an issue from a new perspective, we show how the appearance of neologisms indicates changes in aspect and framing. Second, we couple the changing associations with a linguistically elaborate target-specific sentiment detection system, which shows how attitudes to current topics are evolving. Third, we use co-occurrence statistics of words and terms, and distributional semantic approaches to show how associations to given terms are changing.

Biography. Gerold Schneider studied Computational Linguistics and wrote his doctoral thesis on robust syntactic parsing. His habilitation addresses the use of computational linguistic approaches for descriptive linguistics and vice versa.

Michi Amsler studied Computational Linguistics and is writing his doctoral thesis on opinion mining and automated media content analysis.

Organization. University of Zurich

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Fatemeh Borran

Echo: Swisscom Customer Feedback Analyzer

Abstract. We describe Echo a Swisscom text analytics tool that helps developing an open and transparent customer feedback culture at Swisscom. Echo exploits customer feedback from different Swisscom channels as well as social media and allows all Swisscom employees to search and explore customer feedback in near realtime. Echo benefits from both the Human-Centered Design (HCD) experience and the (Big) Data Analytics expertise. It is built on top of Apache Solr and offers a full-text search in German. It uses Natural Language Processing (NLP) and Machine Learning (ML) techniques to first anonymize sensitive customer data and then to extract customer sentiment from text snippets. We have evaluated the existing sentiment analysis tools for German and have compared their performance versus a simple dictionary-based model and a domain-based model using Stanford Classifier. The results show that the Stanford Classifier outperforms all existing tools with accuracy 0.68 and average accuracy 0.78.

Biography. Fatemeh Borran received her M.Sc. and Ph.D. in Computer Science from the Swiss Federal Institute of Technology (EPFL), in 2006 and 2011, respectively. From 2012 to 2015 she was working at the University of Applied Sciences of Western Switzerland (HEIG-VD) as a lecturer and scientific collaborator. She has joined Swisscom since January 2016 as a senior data scientist where she is active in the fields of BigData Analytics, Machine Learning, Text Mining and Information Retrieval.

Organization. Swisscom

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Posters

A Game Theoretic Model for Word Sense Disambiguation

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Annotated corpus for protest event mining

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Deeper Insights into Social Media through IBM Watson Analytics

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Discovering and Disambiguating Concepts about Software

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Energy discourses in Switzerland

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Integrating a customized SMT system into traditional computer-aided translation workflows

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Keeping an ear to the market with text analytics

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Posters

Leveraging Data-Driven Methods in Word-Level Language Identification

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Linguistic text extraction and translation in libraries

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Listening to employees: Using text analytics to change the employee survey

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Mining and Opening up the Biodiversity Library

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MODERN: Modeling Discourse Entities and Relations for Coherent Machine Translation

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Multilanguage sentiment-analysis of Twitter data on the example of Swiss politicians

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Posters

Probabilistic Bag-of-Hyperlinks Model for Entity Linking

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Soda - Social Media Data Analysis

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Statements about the Future: Automatically extracting future-relevant Knowledge from Documents

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SWICICO: Social Media Analysis Based on Linked Data for New trends of Chinese Tourists in Switzerland

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Tel(s)-Telle(s) Signs

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Text Categorization Survey - From the Vector Space Model to Deep Learning

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Understanding Medical Data: Text Analysis and Coding with Semfinder Expert System

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Using Apache Stanbol to automatically extract concepts from posts exchanged in Wordpress

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Using Network Analysis to Uncloak Thematic Pathways and Extract Stuff from Unstructured Texts

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Using semantic analytics and AI to map knowledge extracted from experts and documents

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Why D. Trump will win the presidential election

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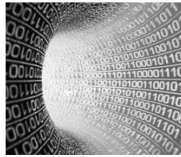
We turn data into valuable insights

SpinningBytes offers smart software for automatic text and data analysis. The resulting insights can be used for business decisions, process optimization or even new data products.

We are experts in machine learning, data mining and software engineering, and we deliver ready-to-use software for your data analytics task.



Text Understanding



Numerical Data Analysis



Audio Processing



Image & Video Analysis

The Company. SpinningBytes AG was founded in 2015 by researchers from ETH and Zurich University of Applied Sciences (ZHAW). We offer: *Brainstorming Workshops* to find the best solution for your business problem; *Smart Software Libraries* for tasks such as sentiment analysis, entity extraction and topic detection; and *Custom Projects* for solving your specific data understanding task efficiently and effectively.

Our Products. Our core product is *DeepText*: ready-to-use software libraries for text analytics tasks. *DeepText* uses state-of-the-art machine learning and deep learning algorithms to analyze texts in arbitrary languages.

Winner of SemEval 2016! In collaboration with ETH and ZHAW, our team has developed the state-of-the-art text sentiment analyzer, powered by deep-learning techniques on 1 billion Twitter messages. This approach outperformed all other competitors at SemEval 2016, one of the most important international competitions on semantic analysis.

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Expert System & Wabion



Expert System is a leading provider of cognitive computing and text analytics software based on the proprietary and patented semantic technology of Cogito. The company has been included by Gartner in the latest Magic Quadrant dedicated to solutions for enterprise search, and in The Forrester Wave™ Big Data Text Analytics Platform. Expert System serves some of the world’s largest industries and it’s distinguished by a leadership in providing solutions based on its Cogito technology, available in several languages, patented in the US and implemented based on more than 20 years of experience.

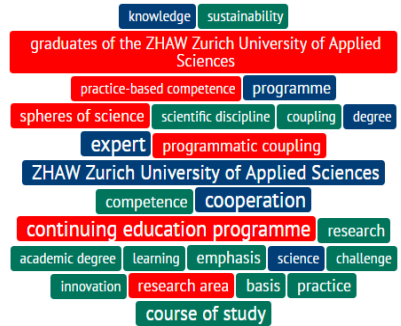


Wabion is the leading Expert System Platinum Partner and the leading Google for Work Premier Partner in the “DACH” countries, with local offices and staff in Germany, Austria and Switzerland. A specialized integrator for Expert System Cogito, enterprise search, business automation, mapping applications and cloud services, the company helps its customers achieve true Digital Transformation. Wabion provides expert consulting, know-how and support for all challenges concerning intelligent text processing, retrieval and analytics.

Thanks to their strategic partnership, Expert System and Wabion offer innovative solutions making information management more effective, with particular support for process optimization in the banking and insurance world. Our semantic solutions include:

- Process automation and optimization by reading and categorizing masses of text (e.g. Insurance Claims Handling)
 - Process automation and optimization by understanding and answering questions with a knowledge base (e.g. Customer Support)
 - Knowledge Management and Semantic Enrichment in combination with Enterprise Search to provide insights and self service portals
 - Social Media analytics including sentiment analysis
- ... and many more

If you are interested in a deeper discussion what semantics can do for your business, get in touch with Dr. Richard Forster (Head of Semantics, Wabion, richard.forster@wabion.ch) or Pamela Negosanti (Technical Director Strategic Partnerships, Expert System, pnegosanti@expertsystem.com)



Semantic Tagging of the ZHAW Mission Statement

Sponsor



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HE-Arc is part of the University of Applied Sciences and Arts of Western Switzerland (HES-SO), the largest University of Applied Sciences in Switzerland and the second largest higher education institution of Switzerland. HE-Arc undertakes research projects with a wide range of partners, including research centres and universities in Switzerland or abroad, as well as public or private companies and institutions. Strongly anchored in the regional economy of the "Arc jurassien", territories of Neuchâtel/Bern/Jura Cantons, HE-Arc collaborates closely with SMEs, and its R&D also extends to certain aspects of industrial-scale production.

Dedicated to computer sciences applied to different areas varying from industrial-driven applications to research and academic-driven issues, Data Analytics Group - DAG at HE-Arc is a research group active in the fields of Data Mining, Big Data Predictive Analytics, High Performance Computing and Complex Numeric Algorithms. DAG has a solid theoretical and practical background in cutting edge technologies and latest advancements in the state of the art of Natural Language Processing such as textual data classification, clustering and regression algorithms deployed in CPU and GPU architectures. DAG has recently realised several solutions to solve concrete industrial problems related to big data analytics and genetic optimization on distributed ecosystems such as Hadoop/Yarn and Spark.

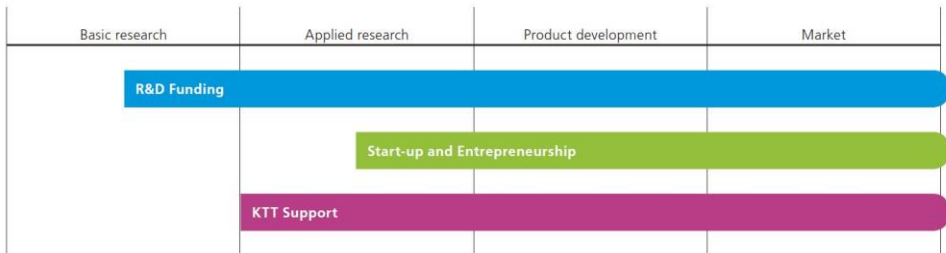
Sponsor



CTI – Start-up and Entrepreneurship,
R&D Funding, KTT Support

The Commission for Technology and Innovation is the Confederation's innovation promotion agency.

It provides consultancy and networking services and financial resources to help turn scientific research into economic results.



CTI's three funding areas are closely linked. The CTI identifies barriers to innovation and uses its instruments to overcome hurdles to collaboration between public research and the private sector.

For more information, visit www.kti.admin.ch.



Schweizerische Eidgenossenschaft
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Confederaziun svizra

Federal Department of Economic Affairs,
Education and Research EAER
Commission for Technology and Innovation CTI
Innovation Promotion Agency



Special Interest Group of the Swiss Informatics Society for Artificial Intelligence and Cognitive Science

The Special Interest Group for Artificial Intelligence and Cognitive Science (SGAICO) brings together researchers, practitioners and other parties interested in the subjects of artificial intelligence and cognitive science (AI/CO).

SGAICO pursues the goal of promoting intelligent technologies for innovation in our society. It provides a platform for exchange between industry and universities. You are cordially invited to join in our various activities and become a member of our Swiss network of experts as a platform for your ideas and initiatives.

- Discussion and dissemination of AI/CO-related knowledge
- Exchange on application problems occurring in Swiss enterprises and establishment of contacts between users and experts in Switzerland
- AI/CO methods and technologies in interdisciplinary contexts such as for example engineering, medicine, psychology and law
- Successful applications of AI/CO around the world and their relevance for Switzerland
- Topics and needs of AI/CO education in Switzerland

SGAICO supports and participates in many different events on AI /CO-related topics. It also supports Swiss researchers in a wide range of activities such as community exchange, establishing contacts, or the organization of events.

SGAICO is a member of the European Coordinating Committee for Artificial Intelligence (ECCAI), which is coordinating the European national AI/CO societies.

More Information: <http://www.s-i.ch/en/special-interest-groups/sgaico/>

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President: Jana Koehler, Hochschule Luzern

Deputy Presidents: Jean-Daniel Dessimoz, HESSO-HEIG-VD, Marc-Oliver Gewaltig, EPFL, Thilo Stadelmann, ZHAW



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dabei sein vernetzt sein
weiterkommen

Swiss Association for Analytics



The Swiss Association for Analytics (SAA) has been created in 2012. It is the very first Swiss group entirely dedicated to predictive and descriptive analytics. Our main objective is to raise awareness of Swiss companies to benefits of analytics. By analytics, we mean the use of data mining and machine learning algorithms for data-driven decision making.

Whether the domain of your company is banking, finance, pharma, e-commerce or telecom doesn't matter. To benefit from analytics, companies need to have data, tools and know-how. The SAA can provide support in these three areas.



The SAA is a non-lucrative organization with the following objectives:

- Promote analytics within Switzerland
- Show the added value of analytics to Swiss companies
- Provide networking facilities for practitioners
- Exchange with other associations having related objectives

We have several means to achieve the above mentioned objectives. We manage a LinkedIn group with currently more than 1'400 members (www.linkedin.com/groups/4586163). We discuss topics such as trends, challenges, case studies, events and job offers. We also organize 3-4 analytics events each year (www.meetup.com/swiss-analytics). Our events regularly gather 60-70 people in analytics. Our next event, June 15th, will be on Risk Management using Analytics. We also publish a printed magazine dedicated to Analytics, twice a year (www.swiss-analytics.com/magazine). If you are interested to be a speaker, writer or sponsor, feel free to contact us at info@swiss-analytics.com.

To support our association, receive the printed magazine home and get access to event slides, you can become an official member. Details are available at www.swiss-analytics.com/membership.



Our position

The ZHAW Data Science Laboratory, Datalab, is a virtual research group spanning three departments and five institutes of one of Switzerland's biggest universities of applied sciences. Being very strong in research, it brings together all scientists engaged in the particular aspects of Data Science under one roof for collaborative research and industry projects.

Founded in early 2013 as one of Europe's first groups dedicated to Data Science, Datalab currently comprises more than 60 researchers from as diverse areas as law, analytics, computer science and entrepreneurship. It is one of the leading Data Science research centers in Switzerland and beyond.

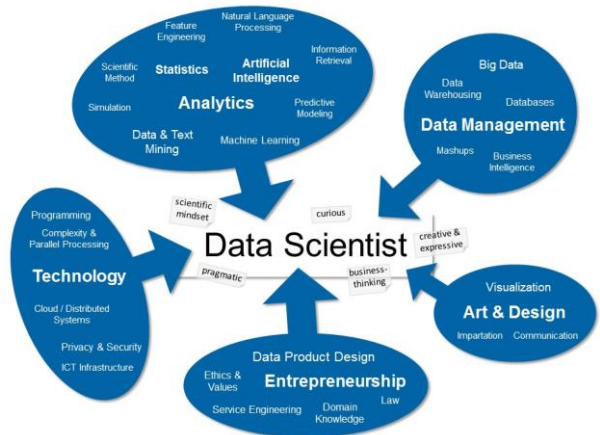
Our offer: R&D projects

Datalab offers the perfect team composition for each and every individual data science project. From our pool of domain experts, we form interdisciplinary project teams with the right mix of methodical and industry expertise. We are used to working together and crossing departmental borders.

Possible project settings are third party- or directly funded R&D projects as well as student's thesis projects, feasibility studies and consulting. Typical project durations vary from a few weeks to several years. We adopt our processes, tools and technologies to our partner's needs.

Our service: Education & community building

Datalab designed one of the first dedicated Data Science curricula in Europe: The "Diploma of Advanced Studies in Data Science" for professional education. Our associates also commit considerable amounts of time to various Bachelor's and Master's degree programmes, thus sustaining the idea interchange between projects, students and industry. We are committed to the Swiss Data Science community by means of several events and conferences we (co-) organize. One particular example is the "Swiss Conference on Data Science" series that is very well attended and supported by industry and academia alike. We highly value this chance for idea exchange, trend spotting and passing on of lessons learned.



Get in touch

Find more information at www.zhaw.ch/datalab (e.g., about individual team members and projects), contact us directly via datalab@zhaw.ch, or follow us on Twitter: @DataScienceCH.



Institute of Computational Linguistics

Computational Linguistics

Computational Linguistics investigates how human language is used as a means of transmitting, storing and processing information, and how these processes can be modeled on a computer and made available to specific applications. Searching information in the World Wide Web, analyzing texts in blogs and forums to gain insight in people's opinions, automatic text summarization or machine translation – Computational Linguistics attempts to make information available for our knowledge-based society.

Study

Computational Linguistics combines linguistics and information science and is the right choice for everyone that is interested in both areas.

Research

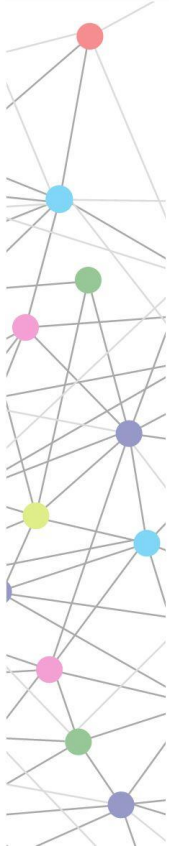
Research topics of our institute include:

- Multilingual Text Analysis
- Machine Translation
- Sentiment Analysis and Opinion Mining
- Automated Media Analysis
- Biomedical Text Mining

Further information

Detailed information about our research and studying Computational Linguistics can be found at:

www.cl.uzh.ch



Partner

Lucerne University of
Applied Sciences and Arts

HOCHSCHULE LUZERN

Information Technology

FH Zentralschweiz

Lucerne School of Information Technology

The Lucerne School of Information Technology is one of the six Schools of the Lucerne University of Applied Sciences and Arts. It is the regional University of Applied Sciences for the six cantons in Central Switzerland and is the biggest educational institution situated in the heart of the country. There are over 5,900 bachelor's and master's students, 4,400 students in continuing and executive education and over 550 projects in research and development.

The Lucerne School of Information Technology offers bachelor's and master's degree programs, continuing and executive education programs, research and development, and services in Information Technology and Business Information Technology on a single campus. It is **the only dedicated School for Information Technology in Switzerland**. The new Campus in Rotkreuz will be open for business in 2016.

The new facilities on the Suurstoffi site in Rotkreuz are a central part of this growth strategy. With the **Campus in Rotkreuz**, the Lucerne University of Applied Sciences and Arts is creating one of the most advanced learning centers in Switzerland.

Besides its broad portfolio of educational offerings, the Lucerne School of Information Technology has also a strong research profile with projects including the following areas:

- Machine Learning
- Image Processing
- Natural Language Processing
- Constraint Satisfaction and Discrete Optimization
- Mobile Computing

For more information about this institution please contact Prof Dr René Hüsler, Dean of the Lucerne School of Information Technology (rene.huesler@hslu.ch) or Dr Tim Weingärtner, Vice Dean and Head of Research of the Lucerne School of Information Technology (tim.weingaertner@hslu.ch).

Institute of Information Systems

PRESENTATION

The Institute of Information Systems of the HES-SO Valais-Wallis is closely related to the Bachelor's and Master's degree courses of the same name and specialises in the development of information systems for companies in any industry. The Institute is active in high value-added areas of the local economy such as eHealth, eServices (digitization of services), eGovernment, eEnergy (energy management) or ERP. The Institute of Information Systems oversees the continuing education programmes in information technology.

RESEARCH TEAMS INTERESTED IN TEXT ANALYTICS

Data Semantics Lab - www.hevs.ch/datasemlab

The Data Semantics Lab has been at forefront of Semantic Web and Data Integration research since 2003. In data semantics, the focus is on how a data object represents a concept or object in the real world. We believe that the explicit presentation of data semantics facilitates data interoperability in the way how information is accessed, aggregated and organized on the Web. In particular, resolving semantic heterogeneity, gathering and sharing data among autonomous and heterogeneous data sources are key to the new pattern. Our lab focuses on scientific research and practical applications of Semantic Computing, Linked Data, Information Extraction, Knowledge Management, Natural Language Processing (NLP), Data Visualization, Business process modeling and Mobile technologies. We are working both with domestic and international partners from different organizations, enterprises and government.

DUDE-LAB : Data Understanding Data Explained - www.hevs.ch/dude-lab

This lab of computer science is built with people mind. People to build it people to use its results. We would like to help people drowned in the ocean of data that is available today on different supports and different media. So we tackle the problem of making sense of data, information, and knowledge to provide tools that will help us human to gain a better understanding of our environment and help us to take better decisions. We address here practical problems that can be solved with data intelligence analysis like: prediction of energy consumption, storage and production (solar, wind), pattern recognition of biological signals, social media knowledge extraction, Modular information systems imbedding data analysis.

MedGIFT - www.hevs.ch/medgift

The MedGIFT project started at the medical faculty of the University of Geneva, Switzerland in 2002 and is since 2007 located in the Institute of Information Systems at the HES-SO in Sierre (Valais), Switzerland. The name stems originally from the use of the GNU Image Finding Tool (GIFT) for medical applications. Over the years the GIFT has been used less frequently and a large set of tools and applications have been developed to advance the field of medical visual information retrieval. All developed tools are open source and can be requested by email. Some very old tools might not be available anymore. A very strong collaboration with medical informatics and the University Hospitals and University of Geneva, Switzerland continues to keep the group activities in medical information analysis and at the interface between computer science and medicine.



Bern University
of Applied Sciences

Information and Data Engineering Research Group

The Information and Data Engineering Research Group is part of the Institute for ICT-based Management at the Bern University of Applied Sciences. Our interdisciplinary team consists of scientists and technical staff with backgrounds in computer science, mathematics, and economics.

Competencies and Reference Projects

We conduct data-centric R&D projects and offer consulting services to our Swiss and international partners. In detail, we cover

- Data Science for structured and unstructured data (statistics, mathematical modeling, machine learning, and text mining), e.g.,
 - consulting on data modeling and text mining for the PostFinance AG
 - analysis of blood pressure sensor data for the STBL Medical Research AG and EMPA
 - data visualization for the Canton of Bern
- Linked Data and semantic Web technologies, e.g.,
 - Linked Data platform for the EU research projects Fusepool / Fusepool P3
 - modeling and execution of data transformation workflows for CTI project DOW
- Web and mobile applications technologies, e.g.,
 - mobile application myBFH
- social networks and applications, e.g.,
 - collaborative learning platform for Linked Data technologies for the Hasler foundation project EDULOD

We are experienced software developers for different technology stacks (MATLAB, Java, .NET, SQL, Hadoop, Spark, etc.). Our staff is also teaching courses for computer science students on bachelor- and master-level.



Contact

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Institute for ICT-based Management
Bern University of Applied Sciences
<http://ictm.bfh.ch>

Feedback



swisstext.org/2016/feedback

Notes

Impressum

Conference Chair

Dr. Mark Cieliebak

Program Committee

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- Fabio Rinaldi, University of Zurich
- Ivo Blohm, University of St. Gallen
- Jürgen Spielberger, Zurich University of Applied Sciences (ZHAW)
- Jürgen Vogel, Bern University of Applied Sciences (BFH)
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- Martin Jaggi, ETH Zurich
- Roberto Mastropietro, University of Applied Sciences and Arts of Southern Switzerland (SUPSI)
- Tim vor der Brück, Lucerne University of Applied Sciences and Arts (HSLU)

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datalab
www.zhaw.ch/dataLab



SPINNINGBYTES



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led by sense

ETH zürich



Institute of Information Management

University of St.Gallen

Lucerne University of Applied Sciences and Arts

**HOCHSCHULE
LUZERN**



swiss group for artificial intelligence
and cognitive science



Hes·SO

VALAIS
WALLIS

SUPSI



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Haute Ecole Spécialisée
de Suisse occidentale

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University of Applied Sciences and Arts
Northwestern Switzerland