

## Call for Papers: Conference on Data Mining in Job Advertisements

### *Text Mining on Job Advertisements*

#### *Strategies for discovering valuable information from large corpora*

**Categories:** data mining, text mining, machine learning, information extraction, data science, natural language processing

In labour market research we face a serious lack of empirical information about ongoing trends of the employers demand for competences, skills and experience with technical equipment. Job advertisements in contrast are a rich source of information. They are very up to date and convenient and quite cheap to collect – in the case of using online sources. But there is also a challenge: The vast amount of information in job advertisements is completely unstructured, which means we have to cope with natural language texts and we have to dig for the information before analysing the data.

From the perspective of natural language processing job ads are a remarkable text species. On one hand we can see extensive constraints concerning content and shape. On the other hand the margins inside these constraints are used very actively. These points matter for the performance of well established text mining solutions applied on job ads and for classification and extraction tasks.

With the conference we aim to bring together researchers from different disciplines with a focus on text analysis in the special domain of job ads or adjacent fields of interest. The conference day will be organized in three or four sessions, depending on the topics of the submissions received.

The conference languages will be English and German. We welcome oral contributions in both English and German. Participants who will speak in German are encouraged to prepare their slides in English.

### **Suggested topics for submissions**

Infrastructure for information extraction and text mining on job ads:

- Corpora: availability, generation, annotations, ..
- Ontologies: generation and availability
- NLP-Pipelines (language and domain specific)
- Taxonomies / Classification Systems from and for the analysis of job ads

Tasks:

- Automatic classification of job ads
- Information extraction from job ads
- Automated Coding: occupations, branches, ..
- Semantic Similarity strategies for entity classification

#### Methods:

- Natural language processing methods for job ads
- Rule based systems vs. machine learning approaches
- Deep Learning strategies
- Linguistic Aspects
- Big Data: Challenges to cope with big corpora

#### Social Sciences and job ads:

- Job tasks and requirements: Variation over time in occupations, organizations, and industries
- Job ads as a reflection of social reality: gender, values, corporate culture and incentives
- Labour market research: components of skill demand in the overall labour market

#### Dates and Venue

- November 2017: Call for papers published
- February 28, 2018: Extended abstracts due (2 pages, English or German)
- March 19, 2018: Information for accepted / rejected submissions
- Conference on **April 20, 2018 at GESIS, Cologne**

Please send submissions and any questions to [TMonJobAds@bibb.de](mailto:TMonJobAds@bibb.de).

Link: <http://www.bibb.de/text-mining-on-job-advertisements>