

Your Master Thesis in Japan

In a unique and collaborative international project, the chairs Prof. Dr. Bela Gipp (University Wuppertal, Germany), Prof. Dr. Karsten Donnay (University Zurich, Switzerland), and Prof. Akiko Aizawa & Prof. Isao Echizen (National Institute of Technology, Tokyo, Japan), join together with Omri Abend to work on the automated detection of media bias. Together with a group of Germans and Japanese, you will work at the NII in Tokyo to identify unbalanced coverage of news.

Time period:

Start is possible beginning from September 2020. Any duration, also half in Israel/Germany and Tokyo, is possible.

Scholarship:

The student will be funded by a minimum of 2800NIS/month. Potentially, this amount can be increased via an Israeli scholarship or an additional job at one of the chairs.

Projects:

The following pages will give an exemplary overview of possible projects in the area. This, however, would be discussed in detail in person depending on individual interest and experience.

Application:

Please contact the supervisor, Timo Spinde, at Timo.Spinde@uni-Konstanz.de, no later than April 5, 2020.



Media Bias

News articles serve as a highly relevant source of information on current topics and salient political issues. News coverage is not just the communication of facts; on the contrary, news articles put facts into context and transport specific opinions. Hence, how the news covers a topic or issue can decisively impact public debates and affect our collective decision making. Slanted tonality, word choice, and other forms of media bias may have a large impact on individuals' perceptions of societal issues. The severity of biased news coverage is amplified further by the fact that regular news consumers are typically not fully aware of its degree and scope.

Our research project is tackling media bias from multiple sides: We are identifying underlying concepts of news to identify bias by omission. We also use modern language models and linguistic features to find bias by word choice and labeling and/or framing. Lastly, we closely work together with two professors from Psychology to identify the best ways to visualize media bias to journalists, scientists and everyday readers. The large project scope allows for applications in various computer scientific areas, such as Machine Learning, Databases, Natural Language Processing, and Network Analysis.



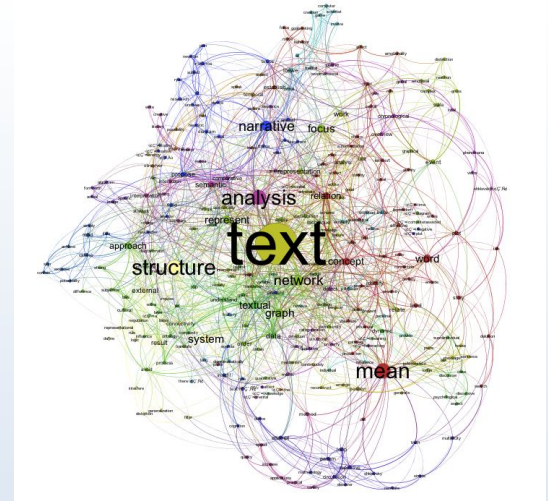
Media Bias Projects

International collaboration Germany – Japan – Israel

Automating the Creation of Bias Lexica

Background

Do you say: "Refugees will be distributed among all of Germany"? Or do you say: "Islam invades Germany?" Media bias is one of the most trending scientific topics today, it affects us, everywhere, anytime. We developed an approach that improves performance of identifying medium-specific bias language. In the next step, this approach will become automated. For technical details and some related frameworks, please see <https://bit.ly/2nwHiFU>.



Goal

Automate a method that creates bias lexica from specific sources.

Tasks

- Get familiar with media bias & semantic models.
- Scrape an English data set.
- Build a robust automated or semi-automated algorithm to detect media bias based on biased inputs.
- Test and evaluate the approach.

Timo Spinde

Timo.Spinde@uni-konstanz.de

University of Konstanz &
University of Wuppertal,
Germany



Akiko Aizawa

aizawa@nii.ac.jp

National Institute of
Informatics, Tokyo, Japan



Relational Text-Network Modeling

Background

Network analysis provides powerful methods to efficiently analyze large data sets. This project aims at transforming news texts and their contents into multi-attribute networks to enable media bias detection processes. We will aggregate relations, in the most simple case co-occurrences, perform an in-depth relation modeling and apply various NLP methods to attach different measures of unbalanced coverage to each entity/article/newspaper/year/topic.

Goal

Transform a huge text corpus into a reliable and efficient network structure

Tasks

- Get familiar with media bias & network analysis
- Plan the algorithm behind the network and the respective database.
- With a general baseline, add attributes by various methods ranging from simple text retrieval to more complex NLP, one after another.
- Analyze the results of your network. Evaluate, repeat and reevaluate to enable further processing, e.g., machine learning / labeling tasks and basic methods of network analysis.



Timo Spinde

Timo.Spinde@uni-konstanz.de

University of Konstanz &
University of Wuppertal,
Germany



Akiko Aizawa

aizawa@nii.ac.jp

National Institute of
Informatics, Tokyo, Japan



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Creation of a Machine Learning Media Bias Dataset

Background

This project will prepare machine learning for a large, international study that aims on collecting annotated media bias in news texts to be applied for machine learning. We intend to use human-identified media bias, based on word choice and labelling, to filter out underlying concepts of media bias, to evaluate existing approaches, and to detect media bias ourselves, using the whole structure of annotations to train a machine on identifying the same concepts.

Goal

Your task will be to perform such a study on a smaller level.

Tasks

- Get familiar with media bias & survey methodology
- Perform a pre study for a later, bigger experiment: Develop an easily understandable annotation survey which makes people annotate bias. The participants will be shown different texts or text excerpts and will then mark what they believe is media bias. Communication is a key task in this project.
- Try out different machine learning technologies to see which could achieve the highest performance for such a task.
- Analyze the results of your pretests. Evaluate, repeat and Re Evaluate.

WEST PALM BEACH, Fla. -- President Trump dispatched the C.I.A. director Mike Pompeo C.I.A. the C.I.A. director Mike Pompeo to North Korea to meet with its leader Kim Jong-un, in recent weeks to lay the groundwork for a summit meeting between Mr. Kim and Mr. Trump, two people briefed on the secret trip said on Tuesday. Mr. Trump alluded to Mr. Pompeo's mission when he said on Tuesday afternoon that the United States was in direct talks with North Korea at "extremely high levels," and that the White House was looking at five sites for a potential meeting of the two leaders the two leaders. The White House has used intelligence, rather than diplomatic channels, to communicate with North Korea, ever since last month, when Mr. Trump unexpectedly accepted Mr. Kim's invitation to meet. Mr. Pompeo, who is awaiting confirmation as secretary of state, has been dealing with North Korean representatives through a channel that runs between the C.I.A. and its North Korean counterpart, the Reconnaissance General Bureau, according to other officials. And he has been in close touch with the director of South Korea's National Intelligence Service, Suh Hoon, who American officials said brokered Mr. Kim's invitation to Mr. Trump. On Tuesday, Mr. Trump also said he would give his blessing to North and South Korea to discuss the end of the war "when the leaders of those countries meet this month, opening the door to a peace treaty that would replace the armistice that halted the Korean War in 1953. His statements, which came as he welcomed Prime Minister Shinzo Abe of Japan to his oceanfront estate here, were fresh evidence of a diplomatic thaw underway on the Korean Peninsula, and made a once-unthinkable encounter between him and Mr. Kim far more likely. The president did not specify who in his administration was talking to North Korea, nor did he give any hint of the sites under consideration -- adding to the aura of mystery that has enveloped this potential meeting. The Washington Post first reported Mr. Pompeo's trip, which took place over Easter. But his comment could raise other thorny issues: A peace treaty with North Korea would greatly increase pressure to ease economic sanctions on the North and to withdraw American troops from the Korean Peninsula. It would also complicate the already tangled diplomacy in East Asia. In his meeting with Mr. Abe, however, Mr. Trump projected optimism. He described North Korea in language worlds away from the speech he gave in November in Seoul, when he called it cruel and barbaric, "the results of a tragic experiment in a laboratory of history." "I really believe there's a lot of good will," Mr. Trump said. "They do respect us. We are respectful of them." He even suggested that the North and the South might announce some kind of deal before he met Mr. Kim. On Tuesday, a South Korean newspaper, Munhwa Ilbo, reported that the two countries were negotiating an announcement "to ease military tensions and end a military confrontation," as part of the summit meeting planned between Mr. Kim and President Moon Jae-in of South Korea. That could involve pulling troops out of the Demilitarized Zone, making it a genuinely "Demilitarized Zone." A South Korean government official later played down the report, saying it was too soon to tell what a joint statement by Mr. Moon and Mr. Kim would contain, other than broad and abstract statements "about the need for North Korea to "denuclearize." But analysts said South Korea wa-

Timo Spinde

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University of Konstanz &
University of Wuppertal,
Germany



Akiko Aizawa

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