



Historical Memes For German Teens

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IDEA/CONCEPT

- Apply Natural Language Processing to the dataset (NLP)
- Select words to apply to the “Is this a pigeon meme” that create pro-socialist propaganda.
- Use these memes to connect historical socialist struggle to current methods of youth political engagement.
- Result: Meme-generator using phrases chosen by NLP from the “Sozialismus und Liberalismus” dataset.

“Is this a pigeon”



Memes and politics

- Political memes coopt the established format of a meme in order to communicate a political message.
- Reach apolitical audiences.
- Normalize radical ideas by embedding them in humorous context that makes it easy to disavow them (“it was just a joke”).
- Produced and disseminated at virtually no cost.

SPD



PRIVATISATION

IS THIS SOCIAL DEMOCRACY?

HACKATHONISTAS



**LOOKING
AT MEMES**

IS THIS ACTIVISM?

NLP: Topic Modelling

- WIKI: Statistical model for discovering the abstract "topics" that occur in a collection of documents. The "topics" produced by topic modeling techniques are clusters of similar words.
- Based on distribution of words in documents (Latent semantic indexing - LSI)
- Popular in Digital Humanities, e.g. Computational History
- But requires a lot of data cleaning and fine tuning



NLP: Named Entity Recognition

- Named entity recognition (NER):
 - Used SpaCy's German language model to recognise entities.
 - (based on machine learning and neural networks)
 - Entities are words or phrases of type: "Person", "Location", "Organisation", or "Miscellaneous"

Combining Topic Modelling and Named Entity Recognition

- We matched the topic words to the entities via substring match
 - eg: “Wohnung” matched with “Wohnungsfrage”, “Wohnungsnot”, etc.
 - We added all entities that contain the topic words to a long list that included the entity itself and it’s entity label (“Person”, “Location”, etc.)
 - This allowed the topic words to be used to select more complex entities to create more interesting text.

Data Limitations

- SpaCy German model is trained on modern newspapers
- Texts are often in old script, making computer vision inaccurate (“Klasse” => “Klaffe”)
- Unable to classify text as “pro” or “anti” socialist with the time we had so we could not achieve our goal of making explicitly pro-socialist propaganda.

Putting everything together: Meme-Generator

- The meme-generator randomly picks a topic.
- Within the topic, it randomly picks
 - a person or organisation for the “boy”-text
 - 2 more entities for the other 2 texts
- Generates the image with the chosen texts.



Ira Steward



**Riesen
Volksversammlungen**

Ist das international socialen Bewegung?

**kapitalistischen
bürgerlichen
Gesellschaft**



**Aschaffener
Zeitung**

**Ist das Organisation der
gewerkschaftlichkämpfenden Landlungsgehilfen Berlins?**

socialen Frage II



demAchtstundentag

Ist das socialen Geschichte?

**Berliner
Beamtenwohnungsvereins**



Kellerwohnungen

Ist das Kleinwohnungegegen?

**erklärten Das
Adgcordnktenhaus**



**Reichstagswahlkreis
Niederbarnim**

Ist das wahlberechtigten?

**Widersprüche der
kapitalistischen Welt**



**Das Gesetz
der kapitalistischen
Akkumulation 38**

**Ist das augenfälligsten Gesetz
des kapitalistischen Tauschverkehrs?**

**Delegiertenwahl
für die Ortskrankenkasse
der Apotheker**



Königs-Wusterhausen

**Ist das Gesetzes der
kapitalistischen Akkumulation?**

Moving Forward

- If we would take this project further, our team would like to:
 - Create memes that relate the current socialist movement to historical struggle for socialism.
 - Make a Twitter bot that automatically posts these memes.
- Technical improvements to achieve this:
 - Manual cleaning of text data
 - Fine tune NER: train entity recognizer by human annotators
 - Fine tune TM: optimize lengths of documents and number of topics to improve topic coherence
 - Split corpus into 2 or 3 political camps

