Media Bias in German Online Newspapers

Alexander Dallmann\textsuperscript{1}, Florian Lemmerich\textsuperscript{2}, Daniel Zoller\textsuperscript{1}, and Andreas Hotho\textsuperscript{1,3}

\textsuperscript{1} Data Mining and Information Retrieval Group, University of Würzburg (Germany)\\
\{dallmann, zoller, hotho\}@informatik.uni-wuerzburg.de

\textsuperscript{2} Computational Social Science Group, GESIS - Leibniz Institute for the Social Sciences (Germany)\\
florian.lemmerich@gesis.org

\textsuperscript{3} L3S Research Center (Germany)

Online newspapers have been established as a crucial information source, at least partially replacing traditional media like television or print media. As all other media, online newspapers are potentially affected by media bias. This describes non-neutral reporting of journalists and other news producers, e.g., with respect to specific opinions or political parties. Analysis of media bias has a long tradition in political science. However, traditional techniques rely heavily on manual annotation and are thus often limited to the analysis of small sets of articles.

In [1] we investigate a dataset that covers all political and economical news over a four-year period from four leading German online newspapers, namely \textit{faz.net}, \textit{spiegel.de}, \textit{taz.de}, and \textit{zeit.de}. We perform a comparative analysis of party coverage by analyzing the occurrences of both acronyms and parliament members in title, text, and meta-information. The comparative analysis shows significant differences in coverage between different parties. For example, it can be observed that \textit{faz.net} favors the conservative parties CDU and CSU over the left and green parties Linke and Grüne.

We also investigate a relation in ideology by comparing the usage of ideological terms (e.g., freedom, solidarity) in online newspapers and party manifestos, by counting occurrences and computing the cosine-similarity. Results show that a higher similarity in the usage of key vocabulary can be observed for some parties and online newspapers. For example \textit{taz.de} tends to favor a key vocabulary similar to the left party Linke over other parties.

Finally, we analyze the expression of sentiment towards parties but the results are inconclusive.

References