Press releases are published by organizations to bring attention to achievements they have reached. In the scientific domain, for example research institutions, funders, and academic publishers make use of press releases to advertise newly published papers and particularly promising scientific results. Those press releases can be taken by journalists as basis for articles, steer the interest of other scientists to the results, or are read by the interested public. In altmetrics research, which analyses the presence of scientific objects in various public domains like for instance social media, news, or policy documents, little attention has been given to press releases as a data source so far (Bowman & Hassan, 2019). However, a closer examination of press releases and their interdependencies with various altmetrics might provide valuable clues as to what altmetrics actually measure, as recent findings suggest considerable quantitative advantages for articles promoted in press releases across several altmetrics (Lemke, 2020). Furthermore, an analysis of press releases might partially reveal selection processes made by press release-issuing organizations and thus indicate which kinds of research will be more likely to receive broader attention from media and public alike. The role of press releases in the dissemination of scientific findings is rather important, since it is likely that press releases induce news articles (Bartlett, Sterne, & Egger, 2002).

We analyse two datasets of science-related press releases: one from German science-news portal IDW-Online, which covers all its English press releases published from April 2016 to March 2017, as well as a dataset of all press releases published in the same timeframe on science-news distribution platform EurekAlert!. Word clouds are created to show frequency distributions of scientific disciplines, topics, and term occurrences in the press releases and their titles. These automatic analyses are complemented by a manual content analysis of random subsamples from both datasets, both to identify the actors behind the submission of science press releases as well as to get further insights on how research is portrayed in them.

Preliminary results indicate a predominance of press releases about medicine- and biology-related research in both datasets. Behind that, differences between the datasets become apparent, with emphases on natural sciences in IDW-Online and on both some natural and some social sciences in EurekAlert!. A comparison of the length of press releases by the number of tokens suggests a rather homogeneous structure of press releases.

Our results suggest that there is a strong focus on certain disciplines in press releases, namely on life sciences. As seen in the findings of Bartlett et al. (2002), press releases play an important role within journalistic selection processes and thus for the dissemination of scientific topics across public media. For altmetrics research in particular, knowledge about such topical biases in public media is of importance, as they have direct implications for how mentions of scientific products in media should be interpreted – especially if publications from different disciplines are to be compared.

The current research about COVID19 and the high demand in preprints about this topic shows similarly: topics do attract interest and have therefore an influence on the impact and following metrics (Fraser et al. 2020). Future work in topic categorization of news articles, blogs or comments and posts in social networks would be useful to get a better understanding of the scientific communication processes. A map of topics and their evolvement in different stages of topic dissemination could give insights into the dependencies between topics and altmetrics.

References

