



Figure 5: Diverging topical similarity in news headlines between two news outlets: JTBC and Chosun Daily

of headlines are reacted popularly by the Facebook audience based on the topic network analysis (e.g., what kinds of keywords are used in such headlines).

Second, our methodology and findings can be used for building tools that assist news readers. An automated visualization algorithm that plots a timeline summary of key events based on detection of peaks [8] and plateaus could help news readers quickly catch up with trending news. Furthermore, the map of headline topics can provide useful information for interested news readers to learn the political stance of different media outlets. A comprehensive visualization tool that integrates both functions can easily introduce diverse perspectives to news readers, which can alleviate media bias caused by filter bubbles.

Third, this research contributes to journalism research in three major ways. One is uniquely capturing the converging and diverging headline topics through a large scandal across the right-wing and left-wing media. The degree of convergence and its lasting period are valid indicators in classifying exceptional public events, while the gradual process of topical divergence upon the onset of a political scandal opens up a new research topic on discovering how different media employ unique strategies to cope with their own set of audience over an extended period. Another contribution is in recognizing an uptake of a young cable news outlet (JTBC) in the Korean news media landscape; a swift coverage of exclusive news content likely contributed to this changing dynamics.

Finally, our analysis opens up multiple directions for future work: For instance, (1) Do other online (e.g., Twitter, news websites) and offline (e.g., newspaper readership) channels exhibit similar patterns observed on Facebook? (2) How do media and the public interact with each other in such big events? How does the public discourse affect or get affected by media? (3) Within topical convergence, what strategies do media outlets employ to further their political stance? (4) What do the patterns of bursts and peaks tell us about the nature of events themselves? For example, do smoother and longer peaks reflect prolonged public interest and high significance of an event? We plan to investigate these questions to better understand and support the intricate interplay between a societal event, a media landscape, and the public discourse.

5. REFERENCES

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