

Patterns of cultural Other at scale: from attention to dimension reduction

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The humanities and social sciences have employed a diverse range of methods to explore the representations of various cultural groups. Nevertheless, the potential for computational analysis of these phenomena is often underestimated. One contributing factor is the prevailing assumption that computational and qualitative approaches are fundamentally distinct. While computational methods excel at processing large-scale data, their outputs necessitate qualitative analysis for meaningful sense-making and pattern recognition. This principle holds true for a variety of approaches. I will provide examples to demonstrate how we can uncover patterns of cultural Othering, ranging from basic n-gram analysis to computational examinations of entire texts. These examples include the examination of keywords related to Ukraine and Russia on Twitter across various languages; an exploration of sentiment and stance towards immigration in Estonian news media; and an investigation into cultural representations. These studies emphasize the versatility in modelling the phenomena of research. The limitations of such modelling are in fact commonplace in science as well as humanities, as our comprehension of the phenomenon we study is always somehow limited. Nonetheless, despite these constraints, an interdisciplinary stance enables us to uncover exciting patterns of cultural behavior.

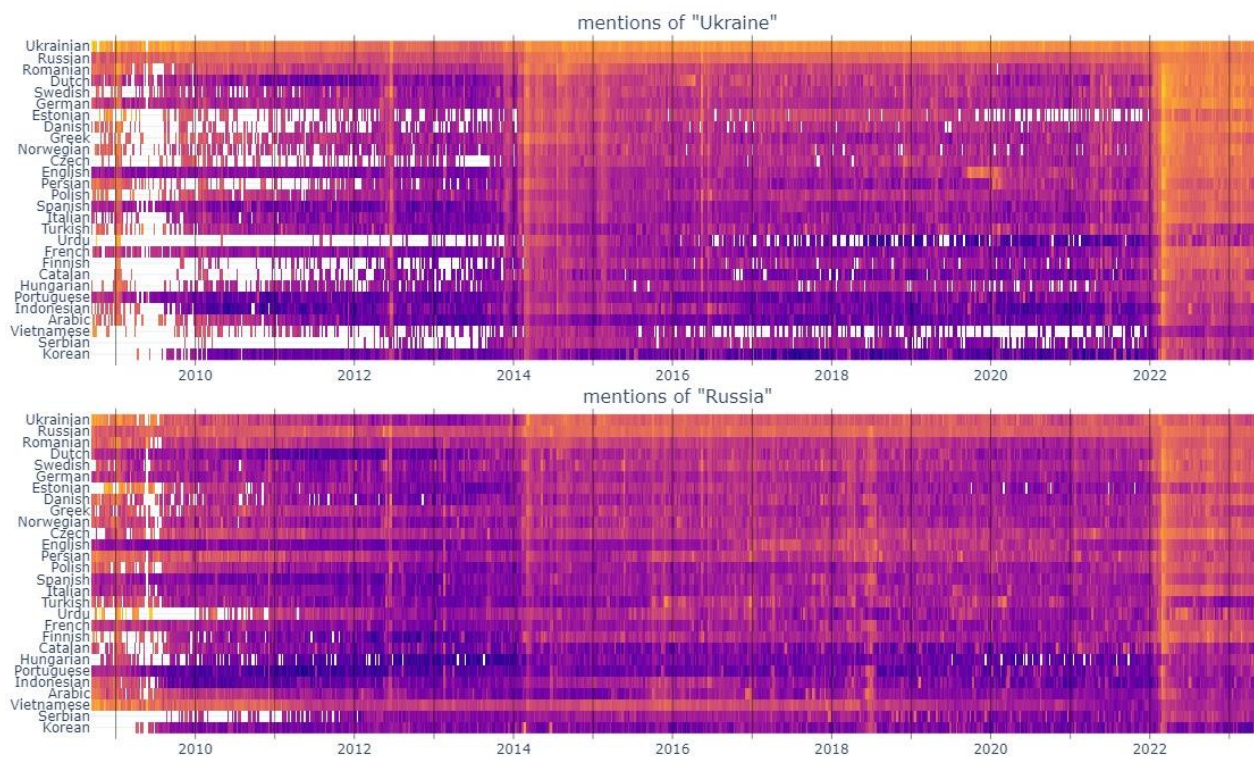


Figure: Frequency of keywords “Ukraine” and “Russia” in twitter from 2008-2023 in 28 languages. Brighter colors show more frequent mentions in relation to all other words. The image is on logarithmic scale, meaning that brightest areas indicate times where the keywords were mentioned thousands of times more. This allows e.g. comparison of 2014 and 2022 invasions with each other, with other events, and a comparison of change of attention between languages.