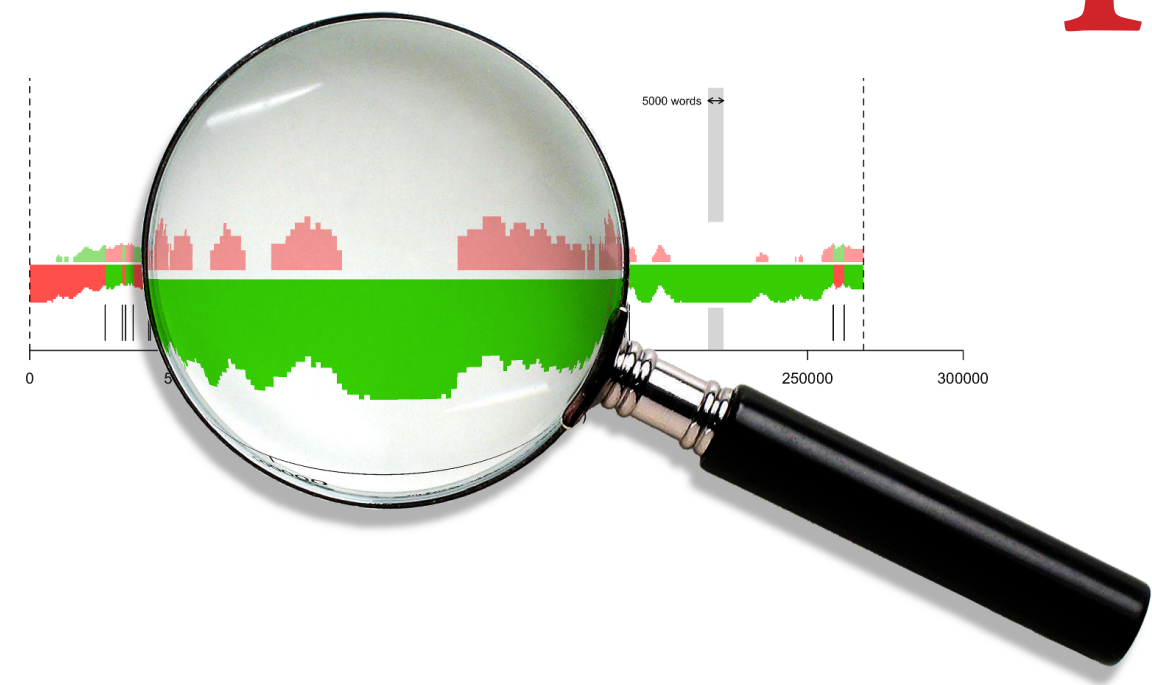


Rolling Stylometry for Collaborative Authorship



Maciej Eder

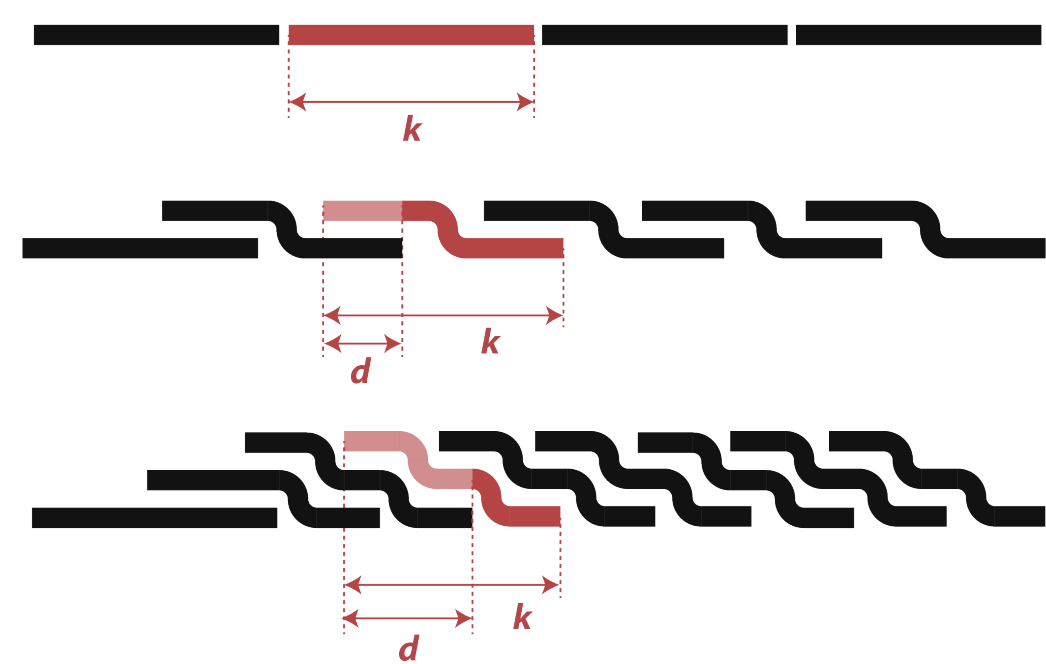
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Abstract

- The poster introduces a new stylometric method that combines supervised machine-learning classification with the idea of sequential analysis.
- An input text is chunked into equal-sized blocks (partially overlapping), and analyzed sequentially.
- Supplemented with a home-brew visualization, the method is designed to detect authorial takeovers.

Sampling options



Classification flavors

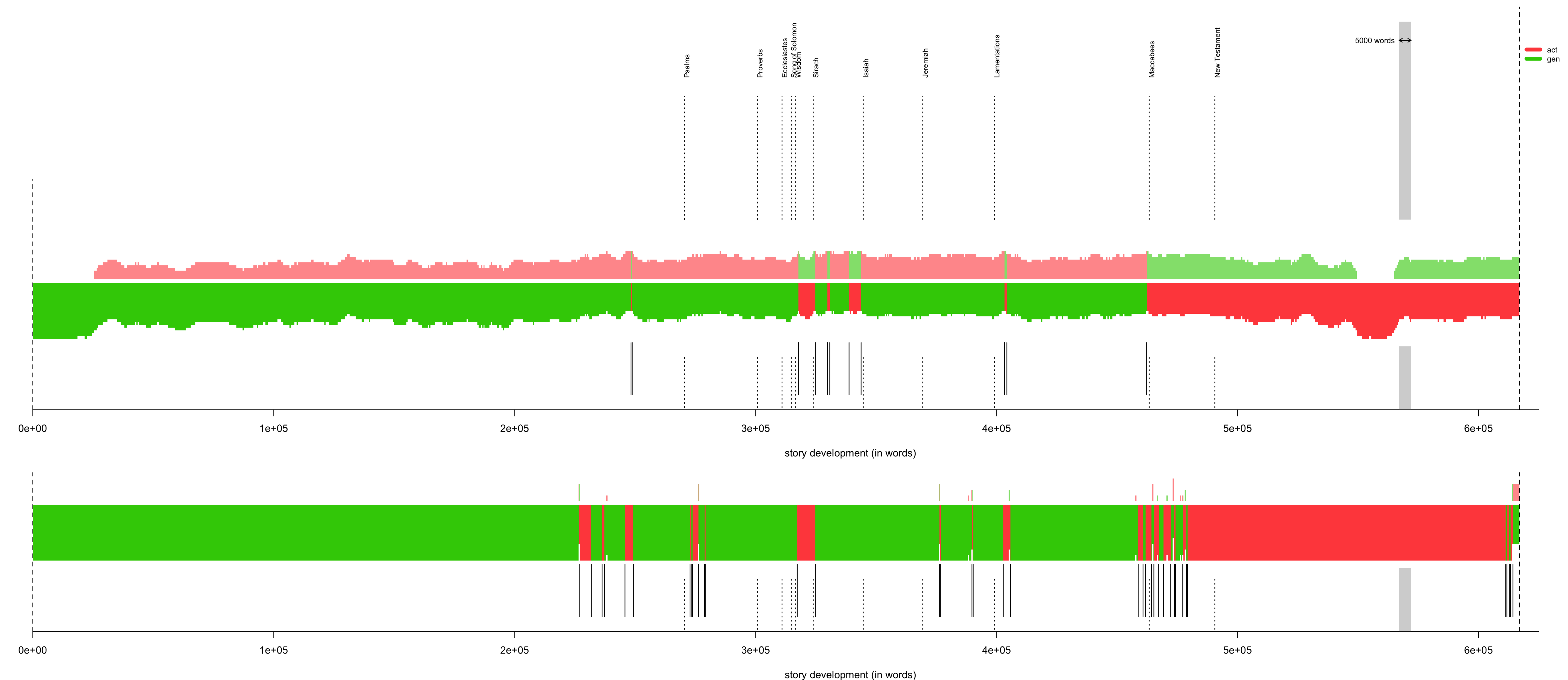
- Rolling SVM, based on Support Vector Machine classification method
- Rolling NSC, based on Nearest Shrunken Centroids
- Rolling Delta, based on Burrows's classifier

Software

- 'stylo', an open-source stylometric library for the R programming language (Eder, Kestemont, Rybicki 2013)

Further reading

- Eder, M. (2015). Rolling stylometry. *Digital Scholarship in the Humanities* 30, Advanced Access published April 6, 2015, doi: 10.1093/llc/fqv010.
- Eder, M., Kestemont, M., and Rybicki, J. (2013). Stylometry with R: a suite of tools. In: *Digital Humanities 2013: Book of Abstracts*, UNL, Lincoln.
- Rybicki, J., Kestemont, M. and Hoover, D. (2014). Collaborative authorship: Conrad, Ford and rolling delta. *Literary and Linguistic Computing* 29(3): 422–31.



The World's Desire

- A classic fantasy novel written collaboratively by Henry Rider Haggard and Andrew Lang in 1890.
- This is a story of Odysseus who returns home to Ithaca; he is involved in several new adventures.
- The plot and the mythological background set by Lang, while Haggard contributed his imagination and style.
- It is assumed that Haggard reworked Lang's drafts and wrote most of the novel, except the first chapters.

The Vulgate

- The canonical Biblical translation into Latin, prepared by St. Jerome
- The translation partially accomplished by St. Jerome, and partially adopted from the already-existing Old Latin version (*Vetus Latina*)
- The Old Testament is mostly rendered by St. Jerome, while the New Testament is rather adopted from earlier sources.
- Moreover, the original Biblical text itself is a composite of at least two languages (Hebrew and Greek), many genres, and several authors.

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