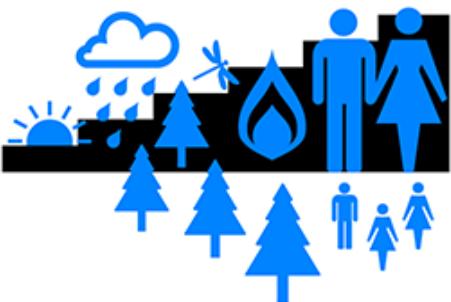


The Shape of a Story

Evolution of Stories

Creation Story



Old Testament



New Testament

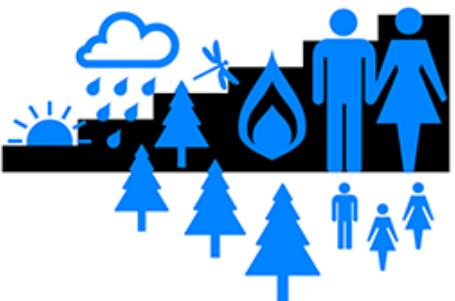


Cinderella



Evolution of Stories

Creation Story



Old Testament



New Testament



Cinderella

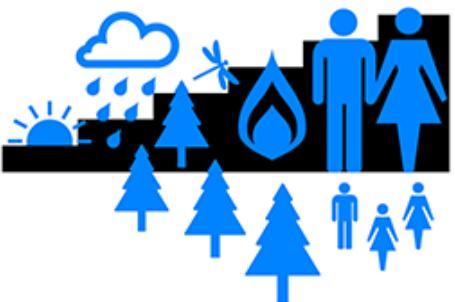


- Inspired by the similarity between Cinderella and the New Testament
- Anthropology Masters Thesis
 - University of Chicago
 - On shapes of stories



Evolution of Stories

Creation Story



Old Testament



New Testament



Cinderella

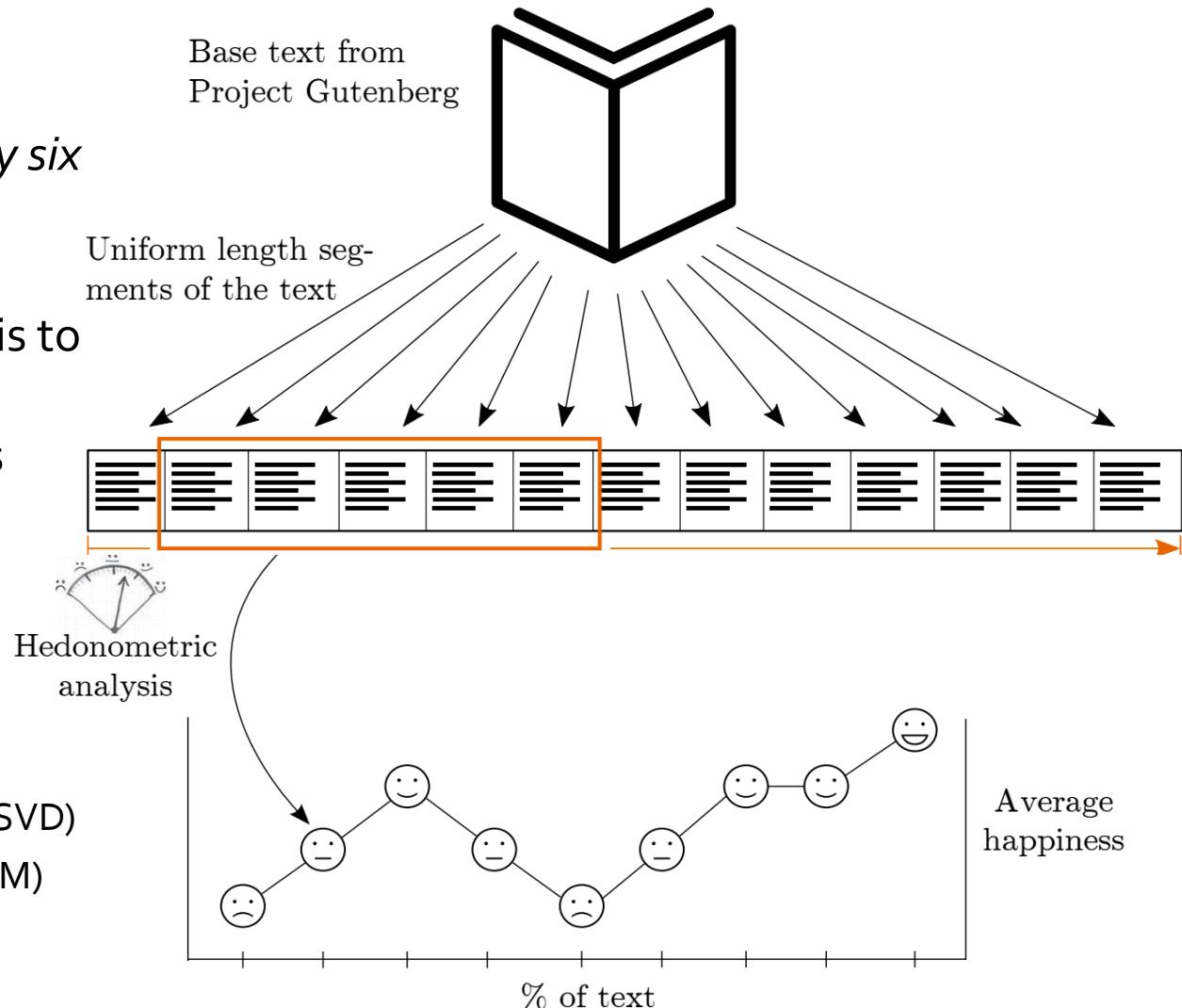


- Inspired by the similarity between Cinderella and the New Testament
- Anthropology Masters Thesis
 - It was rejected
 - He dropped out (man-in-hole?)

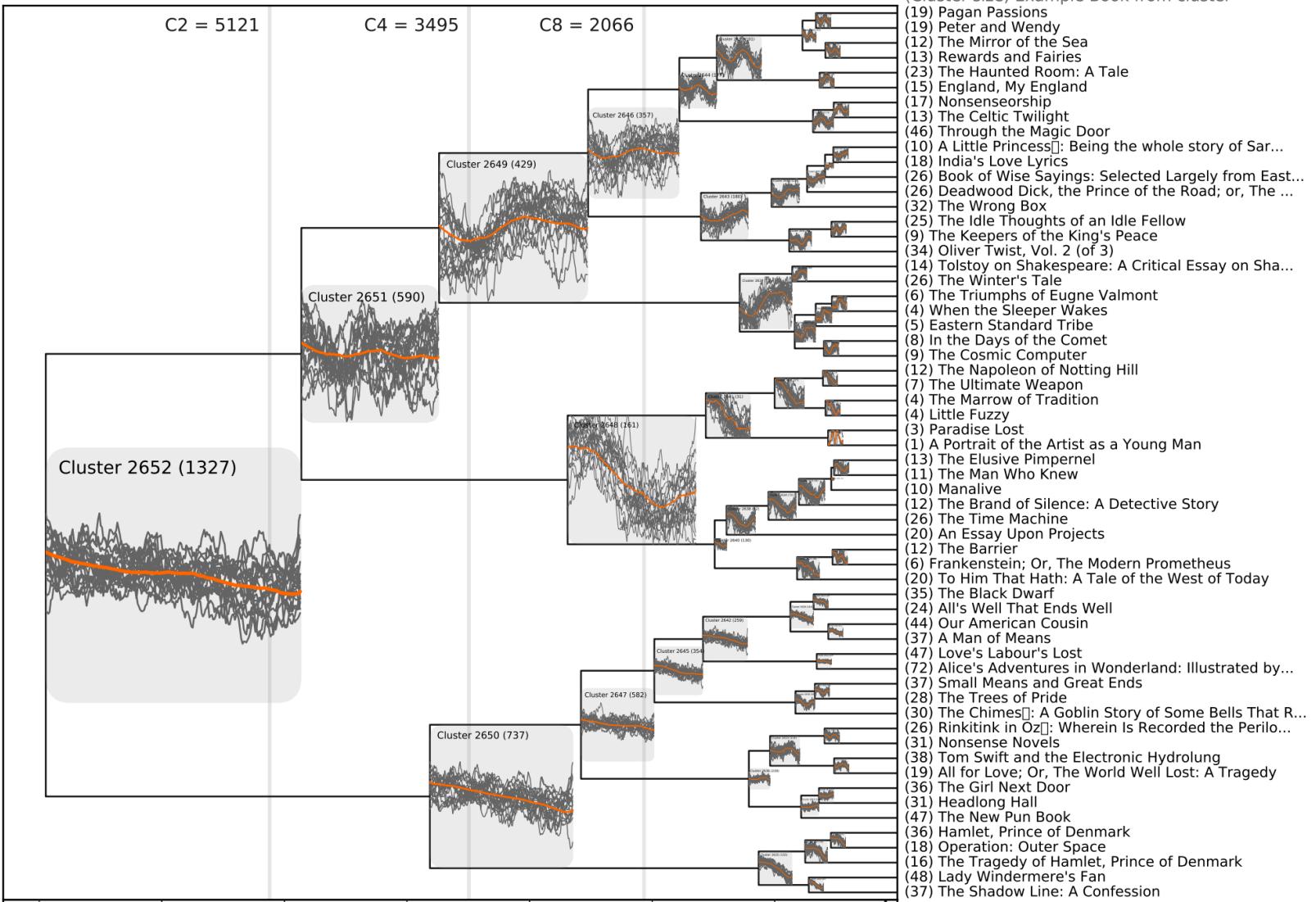


New study (2016)

- *The emotional arcs of stories are dominated by six basic shapes*
 - Reagan et al.(2016)
 - Used sentiment analysis to map ~ 1500 English fictions into time series
-
- Cluster analyses
 - Hierarchical clustering
 - Singular Value Decomp.(SVD)
 - Self-Organizing Map (SOM)

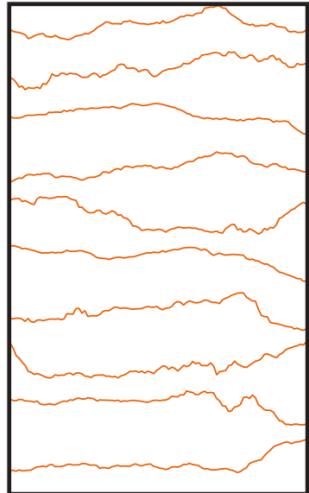


Cluster Analysis



SVD

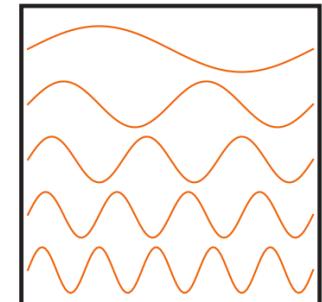
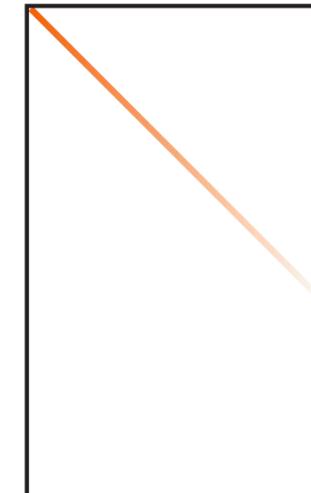
■ Timeseries



=



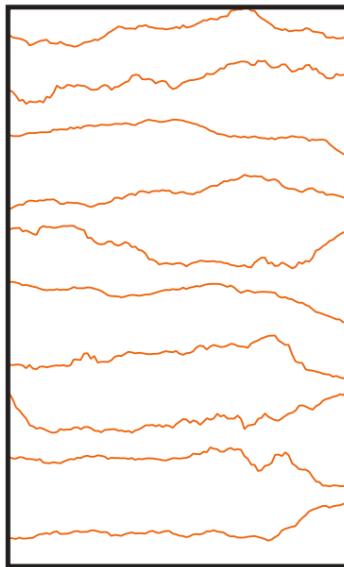
Eigen-modes



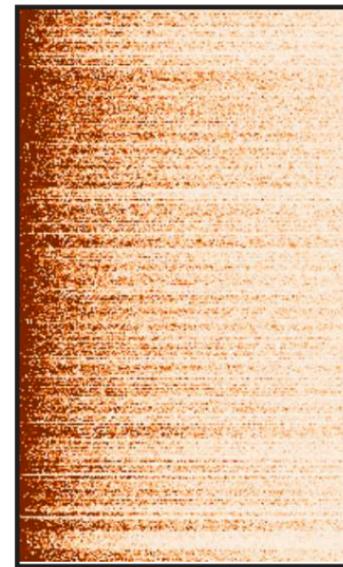
$$A = U \Sigma V^T$$

SVD

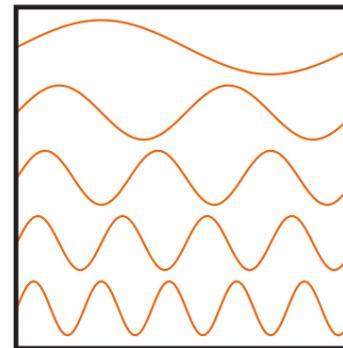
■ Timeseries



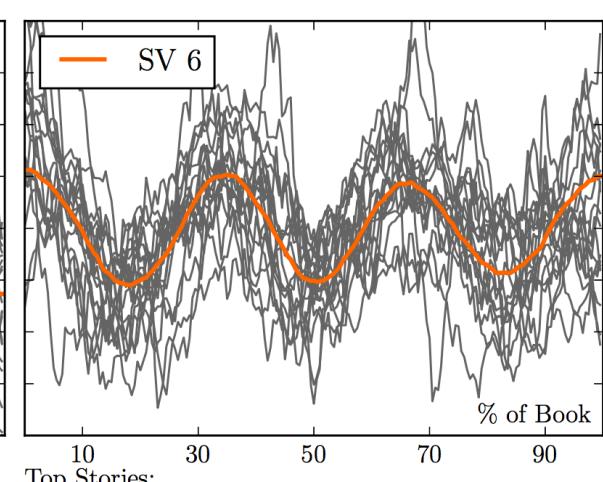
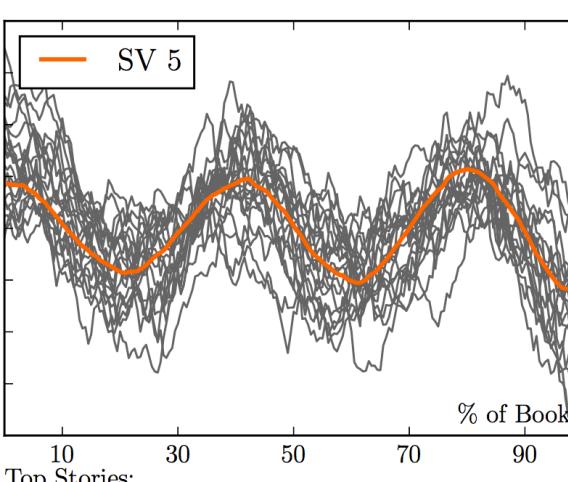
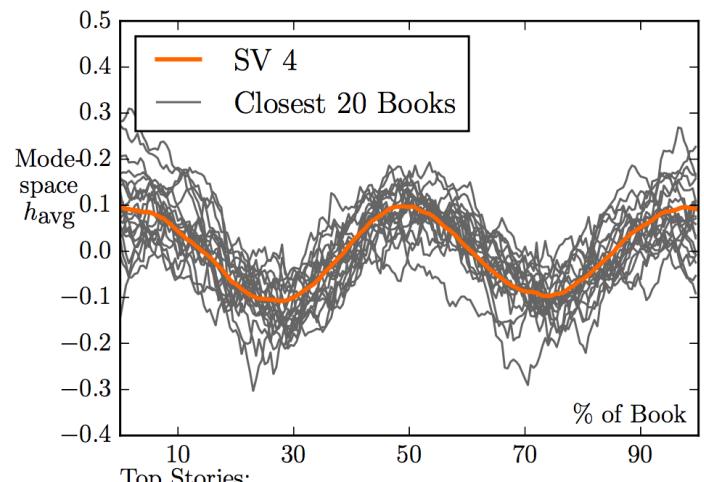
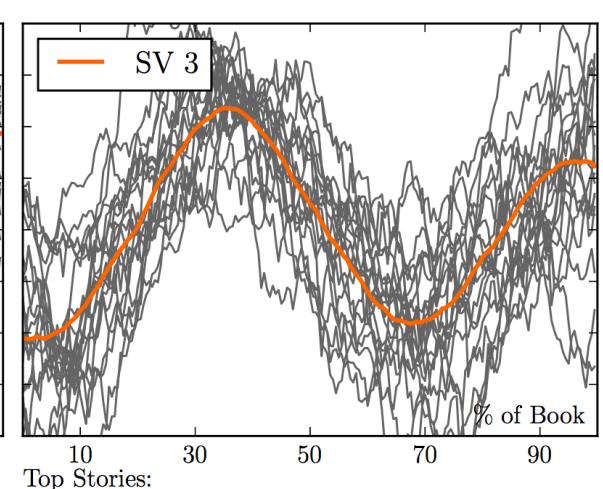
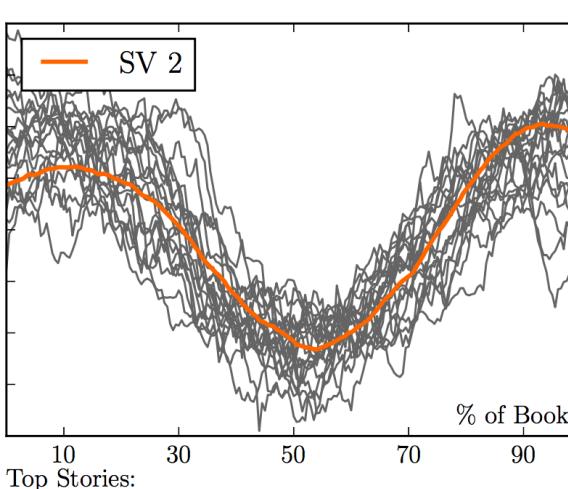
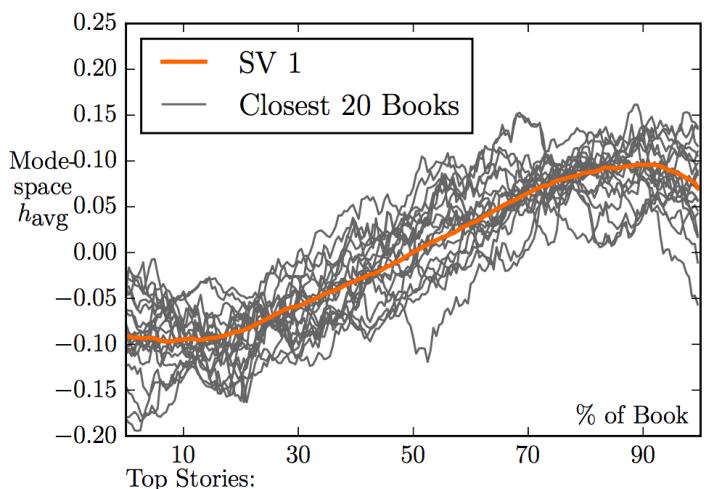
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Eigen-modes



$$A = W V^T$$



Self-Organizing Map

- I don't know what this is, but it looks scientific

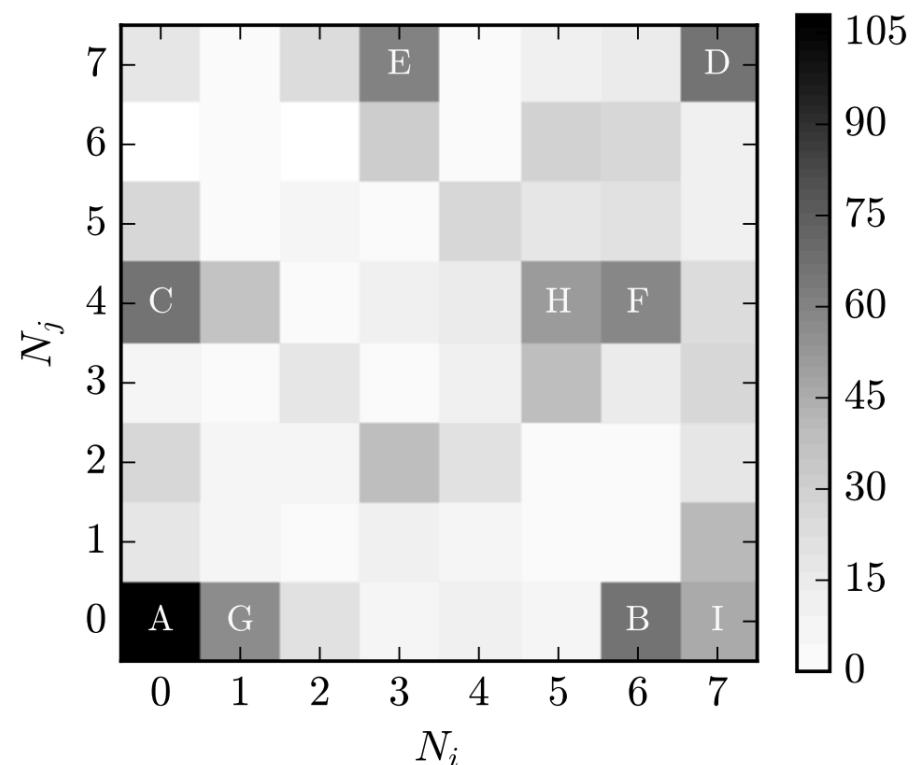
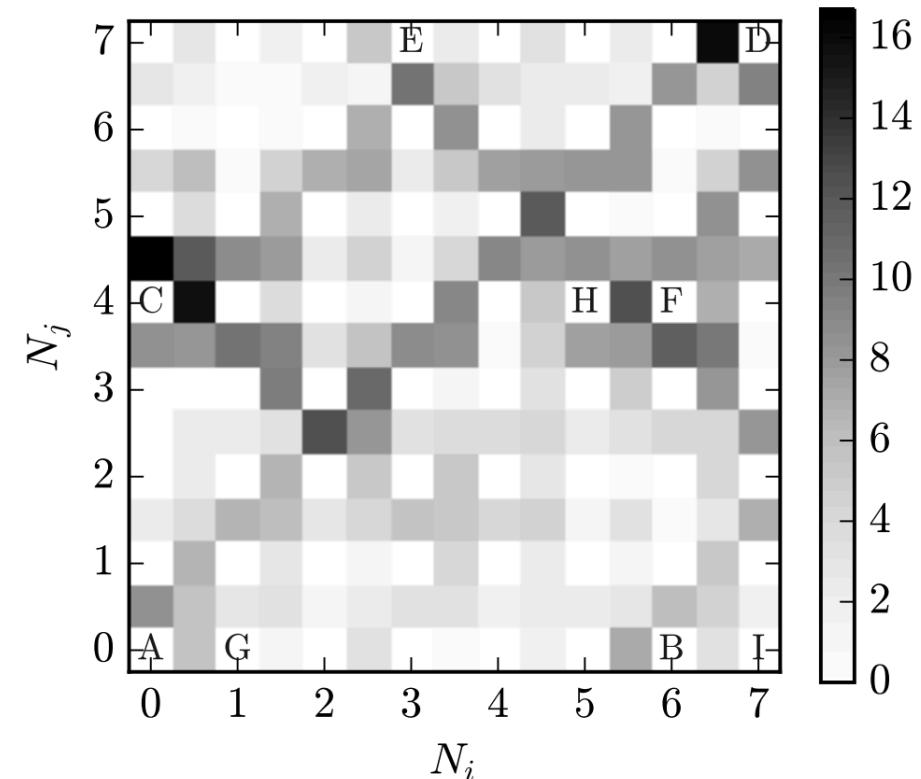


FIG. 6: Results of the SOM applied to Project Gutenberg books. Left panel: Nodes on the 2D SOM grid are shaded by the number of stories for which they are the winner. Right panel: The B-Matrix shows that there are clear clusters of stories in the 2D space imposed by the SOM network.

Resources

- Video:
 - <https://www.youtube.com/watch?v=oP3c1h8v2ZQ>
- Read the paper at :
 - <https://arxiv.org/abs/1606.07772>