

Rewriting Nature: studying the early modern scientific vocabulary in the Republic of Letters with word2vec

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Studying the transformation of early modern natural philosophy in its actual historical complexity is a major challenge for historians of philosophy and science. However, the size of the historical corpus that should be taken into account to fully address this challenge is hardly treatable with traditional close reading of a few selected texts. In this project, we plan to adapt a word2vec tool, ShiCo, to study the transformation of the conceptual vocabulary of natural philosophy across time. We plan to adapt ShiCo to work on an early modern corpus of learned correspondences (available through the Oxford E-Enlightenment project). ShiCo will allow historians to uncover the patterns in the dramatic transformation that the discipline underwent during the period. We will rework ShiCo in order to introduce a metadata filtering system capable of distinguishing different sub-classes of data and explore what is the minimum size of data sets with which ShiCo can work. This will allow ShiCo to be customized for the specific kind of corpora often studied by historians of philosophy and science. Moreover, we will experiment how Shico can deal with the kind of relatively rare technical terminology that is most relevant for the philosophical discussion. This highly interdisciplinary project will offer a platform to integrate computational approaches in the field of history of science and philosophy.