

## **Abstract**

This dissertation thesis deals with the application of the concept of information distance to the social network data analysis. We consider this data as recorded acts of social action. As such, they express certain attitudes, values and intentions. We introduce a formula for calculating the Normalized Social Distance and, based on the series of case studies, we prove the usefulness and validity of this approach. The application of formal mathematical and computer science techniques to massive data records of human action in social network environments is enabled by the change brought by new media and the associated technological advancement. This change is accompanied by a gradual transition of research methods in the humanities, referred to as the onset of digital humanities. This approach is characterized by the application of quantitative methods in the field of humanities and the discovery of new data areas useful for analyses. In case of social media data, the differentiation between quantitative and qualitative methods is no longer valid. A good example is also this thesis, in which information theory specifically combines the methods of a traditional social network analysis and the Goffman's frame analysis of human action.

## **Keywords**

Information distance, Normalized Social Distance, Kolmogorov complexity, social media, data mining, digital humanities, Facebook, Twitter