

TimeScapes: Towards a Visual Characterization of Modern Artists' Exhibition Activity



Teaser Image: Three different views allowed by our approach. First, one can have a summary view of all artists in the database. They are minimally characterized for compact viewing, having only their names, birth date and place, and death date and place. Then, a sparkline characterizing their exhibition activity over the years. Because our database deals with a closed interval of 10 years, visual comparison between curves can be very informative. Any subject can be selected as a query for *Similarity Ordering*, where everyone else in the database is compared and ordered according to their similarity to the subject. *Co-Exhibition Activity* is another sort of query, where artists are ordered based on how many co-exhibitions they had with the subject. These simple tools allow a deeper exploration of the individual and group dynamics of an artist database, and can be valuable instruments of investigation.

Abstract: The richness and potential of the Database of Modern Exhibitions (*DoME*) lies in its innovative capacity, encompassing a comprehensive collection of more than 1350 Modern Art exhibitions in Europe from 1905 to 1915, documented and collected through printed exhibition catalogues. Due to its large scope, *DoME* serves as an ideal database for visual analysis, extracting insights, and communicating advances in Digital Art History research. However, creating visually appealing, effective, and intuitive representations of such data is challenging due to its large scale. Providing such overview/summary visualizations and balancing simplicity with meaningful insights that can be extracted is crucial for clearly communicating this information. We propose an approach that leverages the strengths of sparklines combined with interactive features, such as dynamically re-ordering artists' exhibition activities based on similar behaviour (*Similarity Ordering*), or *Co-Exhibition Activity*. This facilitates the tasks of researchers that are investigating patterns and trends, for instance, in Digital Art History. These techniques enable the exploration and understanding of the dynamic trajectories of individual artists' careers while addressing the challenges associated with summarizing such large scale data. The concept of summarizing and visualizing such large datasets, as exemplified through our proposed approach, can be generalized to various domains. Whether it is depicting exhibition activities in Digital Art History, publication records in scientific research, or stock performance in business analytics, this approach can provide valuable insights into the temporal patterns and relationships within complex datasets. Future opportunities for research are: exploring the multi-dimensional aspects of the data, such as, incorporating additional data dimensions, i.e. artistic styles, geographic locations, age, gender and nationality, providing a more nuanced understanding of the similarities between artists' exhibition activities.