

Mapping the Dynamics of Co-Authorship Networks in the Academic Community of the Arts in Brazil

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ABSTRACT

Research communities (technological, scientific, artistic, philosophical) could be defined as socially aligned groups whose cohesion is supported by artifacts and technologies of self recognition and collective memory. Some of the most important mechanisms of cohesion depend on several types of collaborative bonds, which accumulate temporally between agents, and they include processes and protocols of coauthorship and publication. The interest in the collaborative phenomenon has been increasing for obvious reasons – collaboration, both quantitatively and qualitatively, improves research within a community (Abramo et al., 2019). The community should recognize themselves as a group with a certain cohesion, committed to achieving results of 'shared intentionality' among the agents. We have analyzed the architecture and dynamics of multi-author collaboration in the research community of arts, using several network analysis metrics, based on paper production published between 2000 and 2020 and indexed on Web of Science, SciELO and Scopus. The number of journals, articles, and researchers in the Brazilian field of study known as 'Linguistics, Letters, and Arts' (LLA) is comparatively low. Out of a total of 260,663 doctors and 2,487,827 articles in the eight major fields of knowledge institutionalized in Brazil (CNPq), only 16,241 doctors and 105,592 articles are in LLA, representing 6.23% of the total researchers between 1998 and 2016 (Mugnaini et al., 2019). In the LLA field, 68.07% of articles were written by a single author, compared to a mean of 35.85% in other fields. The percentage of collaboration among researchers in Agrarian Science and Biological Science is approximately 60%, while in LLA, it is only around 10% (Mena-Chalco et al., 2014: 1433). Our main sample group for this research comprises professors who have institutional ties to post-graduate programs in the arts in the state of Minas Gerais as of 2022. The data for this study were collected from the Sucupira and Lattes platforms during 2022. To understand the dynamics and architecture of the community, we have modeled collaborations using temporal graphs and analyzed various network properties such as density, connectivity, and betweenness centrality. This is the first systematic study to focus on the phenomenon of multi-author collaboration in the areas of linguistics, literature, and the arts in Brazil, using network analysis to examine dynamic transformations over time.

Keywords: academic collaboration, coauthorship, arts community, network analysis, temporal graph

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