Visualization tools for co-author networks and citation networks of large scientific portals

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Abstract

Due to the fast development of Semantic Web and its new branch of Linked Open Data, large amounts of structured information on various scientific areas become available. Digital libraries, information systems and portals based on ontologies are the most reliable sources of this information that need careful investigation in order to optimize science management. A generally accepted way to facilitate understanding of such large and complex data sets is graph visualization. This paper is devoted to newly developed visualization algorithms of co-authorship and citation networks extracted from information portals and digital libraries of the Linked Open Data cloud.

Key words: scientific portal, ontology, content, information visualization, layered graph drawing, citation networks, modularity, Open Linked Data.

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