

Distributed Semantic Social Networks: Architecture, Protocols and Applications

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Online social networking has become one of the most popular services on the Web. Especially Facebook with its 845Mio+ monthly active users and 100Mrd+ friendship relations creates a Web inside the Web. Drawing on the metaphor of islands, Facebook is becoming more like a continent. However, users are locked up on this continent with hardly any opportunity to communicate easily with users on other islands and continents or even to relocate trans-continentially. In addition to that, privacy, data ownership and freedom of communication issues are problematically in centralized environments. The idea of distributed social networking enables users to overcome the drawbacks of centralized social networks. The goal of this thesis is to provide an architecture for distributed social networking based on semantic technologies. This architecture consists of semantic artifacts, protocols and services which enable social network applications to work in a distributed environment and with semantic interoperability. Furthermore, this thesis presents applications for distributed semantic social networking and discusses user interfaces, architecture and communication strategies for this application category.