

Dense Collaboration Networks and Centralized Communication Lead to Better WikiProjects

Keiichi Nemoto, Peter A. Gloor

In this project we examine the collaborative behavior among Wikipedians participating in WikiProjects (WP) to investigate what collaboration patterns predict WP success. WPs are used to explicitly group and manage a family of topics within Wikipedia. They are a resource to help coordinate and organize the writing and editing of those articles.

Wikipedia editors, who share a common interest in a specific topic or group of related topics, can explicitly form a virtual team by putting their names on the project page. We looked at two types of collaboration networks. The first is the co-authorship network: we create a network of editors working on the same article within a 4-week time-window.

The second is the communication network: a link is made if one of the members puts a note on the talk page of another member of the project. To measure the success of the project, we use the fraction of high quality articles compared with all articles within the scope of the WP. Our preliminary results indicate that the members of a successful project appear to be densely connected through the co-authorship network and highly centralized in their communication network. On the other hand, the members of less successful projects have low-density co-authorship networks and a very sparse communication network. It therefore seems that a WP whose members are highly connected and with centralized leadership do better work than unconnected editors with decentralized leadership.