

Minitrack Summary—Collaboration in Online Communities: Information Processing and Decision Making

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Abstract

This document summarizes the research articles accepted to the Collaboration in Online Communities: Information Processing and Decision Making minitrack within the Collaboration Systems and Technologies track at HICSS 2022.

1. Introduction

Online communities consist of individuals who share a common interest and who use the internet to communicate with each other and work together. This minitrack focuses on research related to information processing and decision making in online communities. The three papers featured in this minitrack address a variety of research questions within this domain including how to automatically organize the vast amounts of data produced by online communities to better allow individuals to explore idea landscapes, the influence of different types of users within in the community, and how technology-enabled communities can create collective-intelligence. The following section summarizes each of these papers in further detail.

2. Minitrack Papers

The amount of data that online communities create is staggering and individuals need to be able to effectively search through that data to find and process the most interesting data relevant to their needs and interests. The paper, “Exploring Machine-based Idea Landscapes – The Impact of Granularity,” explores how to effectively represent and structure data in online communities. Modern natural language processing methods and clustering algorithms are used to represent data at varying levels of granularity. In their exploratory study, the authors find that machine-based and human similarity allocations are more likely to converge when comparing ideas across more distant solution clusters

than within closely related ones. The study makes contributions to research related to navigating idea landscapes of crowdsourced knowledge.

Online communities consist of numerous individuals with different backgrounds and experiences and allow these participants to share their knowledge and provide their feedback. Some participants may be subject matter experts whereas others may be considered “peers” with no particular expertise. The paper, “An Empirical Examination of Peer vs. Expert Advice in Online Forums,” investigates the influence of peers versus experts in online forums. The paper uses data from a structured survey and a choice-based conjoint study to validate 16 situational characteristics related to peer and expert advice seeking in online forums.

Online communities are popular across numerous domains and industries including being used for not-for-profit and government engagement. The paper, “Monitoring Collective Intelligence in Lithuania’s Online Communities,” looks at how digitally-enabled citizens can contribute to civic intelligence. Civic intelligence is a form of collective intelligence where a group perceives societal problems and then addresses them. As suggested by the title, the paper presents a case study of online platforms used by Lithuanian public organizations and civic movements. The study examines the socio-technological conditions that lead communities to become more intelligent.

3. Conclusion

Online communities and the information processing and decision making that occurs within those communities will continue to be an important research topic in our discipline. The three papers in this minitrack provide interesting ideas on potential research directions.