Introduction to the Humanized Web: Networks, Crowds and their Output

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Internet technologies now make it possible to produce new ideas, products, and services by catalyzing large-scale social networks and crowds. What do such social networks and crowds produce? What should they produce?

While social networks assume organic growth and an embedding that takes place over time, crowds can be assembled rapidly. Between the two extremes are a host of different organizational structures, in which already committed members of a community are deployed to create or improve ideas. And the traces of these new organizations are also varied, ranging from ephemeral short messages to curated collaborative databases. The output often takes the form of digital media, and the organization often relies on social media. These broad themes are addressed by the five papers that have been selected for this year's minitrack on the humanized web [1].

The paper by Hughes, Daniels, Crowley and Bachiller addresses a new problem: when and how to ask users to contribute [2]. They point out that many web sites now rely on the participation of users to respond to queries. Their paper shows how a system can predict the responsiveness of users, through a combination of data gathering and simulation.

The paper by Elevant also addresses issues of user participation [3]. Her work concerns weather networks, in which individuals provide data on local weather. Through empirical study, she examines what drives high rates of participation. She finds that individual characteristics are the strongest factor, but that requests for participation, offline interactions, and reciprocity (instantiated, in this case, by rewarding contributors with alerts), all play a role.

Hemsley and Eckert examine the Occupy movement through analyzing tweets, and in particular the role of place [4]. Place, they explain, is different from the Cartesian coordinates that can be extracted from smart phones. Through analyzing the Twitter interaction between and within places, they contribute to the discussion surrounding political resistance and social media.

Oechslein and Hess analyze the value of recommendations through an experiment in which the participants' Facebook networks were mined [5].

The paper shows that the social ties of the recommender, as well as recommender's credibility and the new source all affect the value of a recommendation.

Lee, Jung, and Suh focus on the role of sentiment in innovation networks [6]; this work has been nominated for the best paper award. The authors find that negative emotion in posts has an influence on eventual decisions to adopt ideas, and the more negative the emotion, the greater the influence. They also find that frustration is the most influential negative emotion on other users and can drive eventual implementation. Their conclusions are based on the analysis of more than 69,000 ideas and comments submitted to MyStarbuckIdea.com.

Together these papers provide a cross-section of current research into human-centric computing on the web, covering user participation, political activism, user-generated recommendations, and user innovation.

References

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