

Title: The role of online neighborhood groups in creating self-organized and resilient communities.

Nader Afzalan¹, and Jennifer Evans-Cowley²

¹ University of Colorado, nader.afzalan@colorado.edu

² The Ohio State University, cowley.11@osu.edu

Cities have co-evolutionary and dynamic behavior (Purtugalli, 2012), and to deal with such dynamics we need self-organized systems that are adaptive and can coevolve with these uncertain situations (Gert de roo, 2010; Batty, 2007). Networks can enhance systems' adaptability and resiliency through creating powerful linkages and augmenting information sharing and dialogue on local issues (Innes and Booher, 2010).

In this paper, we examine ways in which information technology affects creation of self-organized networks by focusing on five online neighborhood groups in Facebook. We primarily explore two questions; a) how are people connected in the network, b) how does the network affect local information sharing and dialogue among participants. We use NetVizz, a Facebook data extraction tool, and NCapture, a browser extension for capturing web content, to extract the online data from the Facebook groups. To analyze the extracted data, we use Gephi application and NVivo software. We use Gephi to visually and statistically explore the degree in which people are connected together in the network, how different communities are clustered and how they are connected in the network, how dense is the network, and how strongly people are connected within the network. We also use NVivo to analyze and find the common themes being discussed in the group. Moreover, we conduct an online close-ended survey to explore ways in which the Facebook groups affect neighbors' communications and collaborations.

While our research is ongoing, our preliminary findings show that the online neighborhood groups can enhance the creation of self-organized communities through facilitating the establishment of well-connected networks and collaboration among online participants. However, besides dismissing non-Internet users of the neighborhood, there are issues with anonymity of online participants which can lead to conflicts and miss-trust in such communities.

References:

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