

## **Governance | Individual communication**

### **IC - (20811) - THE MECHANISM OF RELATIONAL EMPOWERMENT THROUGH COMMUNITY ENGAGEMENT: AN APPLICATION OF EXPONENTIAL RANDOM GRAPH MODELS**

Yohei Kato<sup>1</sup>; Keng Hua Chong<sup>1</sup>

1 - Singapore University of Technology and Design

#### **Background and objectives**

Community design is a long-standing participatory approach to designing inclusive built environments. The design process offers rich opportunities for participants to interact, collaborate, and learn from various stakeholders engaged in a project. In other words, it seeks to empower individuals and community by enhancing interpersonal relations. Despite the significance of relational components in any community-based intervention, conventional empowerment frameworks often emphasize on mastery and control, instead of collaboration and cooperation. Further, relational data being inherently interdependent pose challenges to common statistical approaches, such as regressions, that assume independence of observations. To address these gaps, this study demonstrates how to examine relational empowerment from a network perspective. The study focuses on one component of relational empowerment, referred to as “facilitating other’s empowerment”. This can be thought as a form of guidance and mentorship provided by senior members for newer members.

#### **Process and methods (for empirical research)**

With a sequential mixed-methods approach, the mechanism of relational empowerment was explored in a case study of a long-term community design project in Japan. The study began with interviews with key stakeholders that informed the survey questionnaire: it integrates multidimensional measures of engagement (i.e. breadth, duration, frequency, and intensity) and “name generators” that collect information about ties that facilitate discussions and opinion sharing between participants. To examine factors associated with relational empowerment, this study applied the Exponential Random Graph Model (ERGM), a statistical approach to modelling social networks.

#### **Main results (or main arguments in the case of critical reviews)**

The result indicated that some of the long-term participants are catalyst to facilitate others’ empowerment and that higher levels of engagement can increase the likelihood of tie formation between participants.

#### **Implications for research and practice/policy | Importance and originality of the contribution**

The study contributes to the research and practice of community design by highlighting the advantages of ERGM in examining interpersonal relations: it helps to reveal different levels of influence and capacity among participants, so that community designers can provide appropriate capacity-building support.

**Palavras-chave : Empowerment, Community Engagement, Exponential Random Graph Model, Social Network**