

MISQ Archivist

Is a Core–Periphery Network Good for Knowledge Sharing? A Structural Model of Endogenous Network Formation on a Crowdsourced Customer Support Forum

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Abstract

Many companies have adopted technology driven social learning platforms such as social customer relationship management (crowdsourcing customer support) to support knowledge sharing among customers. A number of these self-evolving, online customer support communities have reported the emergence of a core–periphery knowledge sharing network structure. In this study, we investigate why such a structure emerges and its implications for knowledge sharing within the community. We propose a dynamic structural model with endogenized knowledge-sharing and network formation. Our model recognizes the dynamic and interdependent nature of knowledge seeking and sharing decisions and allows them to be driven by knowledge increments and social status building in anticipation of future reciprocal rewards from peers.

Applying this model to a fine grained panel data set from a social customer support forum for a telecom firm, we illustrate that a user in this community values from being linked to other individuals with higher social status. As a result, a user is more inclined to answer the questions of those who are in the core (well connected) than questions from those who are in the periphery (not well connected). We find that users are taking into account the expected likelihood of their questions receiving a solution before asking a question. With the emergence of a core–periphery network structure, peripheral individuals are discouraged from asking questions as their expectation of receiving a solution to their question is very low. Thus, the core–periphery structure has created a barrier to knowledge flow to new customers who need the knowledge the most. Our counterfactuals show that hiding the identity of the knowledge seeker or making the individual contributions obsolete faster helps break the core–periphery structure and improves knowledge sharing in the community.

Keywords: Structural modeling, social networks, Web 2.0, learning by sharing, social media, discussion forums, social CRM