

Social capital in Social Networks

Part 1: Step 1-3

1. Social capital (SC) in networks is the capacity to use embedded social forces among nodes in the network relationships to gain utility (i.e., capital) (Hexmoor, 2010). The most common method for formulating SC is to quantify quantity and quality of interactions in a link that produce trust, benevolence, and positive regard. Determine a mathematical model of SC for a dyadic link and effects of SC on remote nodes. For example, is there SC transitivity? Another issue is what happens to SC in link cycles? Is there a generalized SC to or from groups?
2. Once a SC model is considered, consider resource in the network as capital. The resource can be (a) atomic single user, generic item like a book, (b) a diffuse and nonrenewable entity like oil from a well, (c) a diffuse and non-perishable item like scenic view.
3. Implement a network with scattered resources and quantify SC for various nodes of the network.

Part 2: Step 4 or 5

4. In the network in step 3, which nodes are at best SC locations and how would other nodes attempt to migrate to attain SC status locations.
5. Develop a coalition strategy for groups of nodes to increase their SC.

References

H. Hexmoor, 2010. [Social Capital in Dynamic Social Networks](#), in Network Science Center Workshop, USMA, West Point, NY.