Swarm Creativity: Competitive Advantage through Collaborative Innovation Networks

Peter A. Gloor. New York: Oxford University Press, 2006. 207 + ii pages. US\$24 95

Swarm Creativity is devoted to a better way of working together through project networks. Peter Gloor admits that the concept of project networks is not new. However, he declares that because of improved communication capabilities, such networks have reached a tipping point. Gloor defines a COIN, a Collaborative Innovation Network, as "a cyberteam of self-motivated people with a collective vision, enabled by the Web to collaborate in achieving a common goal by sharing ideas, information, and work" (p. 4). Characteristically, COINs are selforganizing, open systems. They are not collaborative, virtual teams set up by management. Gloor advocates the use of the term COINs but other designations for these types of networks may become more popular.

Swarm Creativity is appropriate for any group that wants to establish this type of network. Gloor's treatment has both academic and formulaic components. It fits the case of someone like Linus Torvalds and the development of the Linux operating system.

Gloor cites the work of Bonabeau and Meyer (2001) to list the self-organization properties of swarms:

- 1. "Positive feedback reinforces desired behavior
- 2. Negative feedback counterbalances positive feedback
- 3. Amplification of randomness leads to positive reinforcement

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4. Amplification of interactivity has a positive outcome" (p. 20)

These properties enable a swarm to accomplish a given task. These properties enable bees to find food sources and enable people to create of works such as Wikipedia.org.

Chapter 4 explores the ethics and commitment-building issues for a COIN to operate successfully. One of these where individuals "exchange their former identity into one defined and formulated by the community. In COINs, members are respected for the skills they possess and their achievement relevant to the community, with little respect for their outside position" (p. 74).

Case studies of several COINs are presented in Chapter 5. Chapter 6 explores communication attributes that facilitate collaboration.

Appendix A introduces Collaborative Knowledge Networks, CKNs, which are a "high-speed feedback loop in which the innovation results of COINs are immediately taken up and tested, refined or rejected by learning and interest networks, and fed back to the originating COINs. The CKN ecosystem is the main mechanism by which COIN innovations are carried over the tipping point" (p. 128). In some cases, COINs can transform into "startup companies, project teams, and business units" (p. 139).

Appendix B analyzes the flow of information through a social network. In knowledge flow optimization, "communication patterns consisting of time series of collected communication data provide insights into complex group dynamics and make it possible to predict

future group behavior" (p. 173). As communication becomes more transparent, business processes become more efficient. Appendix C provides suggestions to implement knowledge flow optimization.

What method, a COIN or a centralized hierarchy, will provide the better of way of controlling and optimizing a specific distributed system? *Swarm Creativity* provides insights to select the appropriate alternative. Gloor's contribution is the enumeration of a set of principles to improve the probability of incubating a successful collaboration network

References

Bonabeau, E. and Meyer, C., (2001). "Swarm Intelligence: A Whole New Way to Think about Business." *Harvard Business Review* 79(5):107-114.

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