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ABSTRACT

Knowledge management initiatives are less likely to be successful if knowledge repositories do not provide high-quality knowledge assets. Two mechanisms employed by organizations to ensure knowledge quality are using experts to control or edit users' contributions (such as in a refereed repository), and using a community of users to review, rate, or edit existing contributions (such as in a community-driven wiki). The goal of this paper is to explore these two mechanisms by drawing upon the concept of societal governance from sociology, identify the conditions under which they are preferable, and discuss their impact on how users contribute to and reuse information from knowledge repositories. Propositions are suggested and implications are discussed.

Keywords

Governance, hierarchical control, refereed repository, community-governance, community-governance, community-governed repository.

INTRODUCTION

The number of organizations that implement knowledge management (KM) systems to increase efficiency and effectiveness of organizational practices for competitive advantage is on the rise (Davenport, Prusak and Strong, 2008). In order for organizations to enjoy the benefits of these KM initiatives, knowledge repositories must provide high-quality, timely, and reliable knowledge assets (Schuler, 1994). Two of the most frequently used approaches to satisfying this need are: (1) using experts or supervisors as referees to control or edit users' contributions (such as in a refereed repository); and (2) using a community of users to review, rate, or edit existing contributions (such as in a community-driven wiki).

Drawing upon the sociological literature, these two approaches can be referred to as expert-governance (i.e., hierarchical control), and community-governance respectively. Although most knowledge repositories are governed using one of the two mechanisms, our understanding of them is still rather limited. First, we don't know which governance mechanism is better and under what circumstances, even though most organizations tend to prefer community-governance (c.f., McKinsey, 2008). Second, we don't know the impact of these governance mechanisms on knowledge contribution and reuse, without which KM initiatives cannot be sustained (Ba, Statlaert and Whinston, 2001). Therefore, the goal of this paper is to address these concerns by investigating the following research questions: (1) which governance mechanism is preferred when; (2) how do governance mechanisms impact knowledge contribution and reuse?

Investigating these research questions makes two theoretical contributions to the existing body of research. First, we introduce the concept of governance to the KM literature, and advance our understanding of the mechanisms with which knowledge assets can be rendered more valuable. The governance concept promises to provide further insights in other contexts as well. For instance, theoretical frameworks that explain knowledge sharing in virtual teams or communities of interest can be improved by incorporating aspects of the governance concept. Second, we advance the theoretical frameworks in the areas of knowledge contribution and knowledge reuse by suggesting new main and moderating effects that can increase explanatory power and reconcile inconsistent findings in the literature.

From a practical perspective, the most important implication of this study is informing organizations of two alternative modes of governance, and their impact on KM. Practitioners can use the findings of this study to decide which governance mechanism to use, or what type of repository to design in order to maximize knowledge contribution and reuse in their organizations.

This paper proceeds as follows. In the next section we draw upon the governance literature in sociology and describe hierarchical control and community-governance as mechanisms for solving societal problems. In the third section, we extend

these two mechanisms to the context of KM and present our propositions. In the final section, we discuss the theoretical and practical implications.

SOCIETAL GOVERNANCE

Kooiman and Bavinck (2005) define governance as "the whole of public as well as private interactions taken to solve societal problems and create societal opportunities" (p.17). According to this conceptualization, governance can be considered "arrangements" (or mechanisms) that can solve problems faced by a group of individuals, collective, community, or society (Kooiman, 1999). The sociological literature informs us of two such arrangements: hierarchical control, and community-governance. Hierarchical control represents the classical top-down approach between policy makers (i.e. state) and the ruled (i.e. citizens), in which state enforces rules and policies on citizens to provide services. It is in the best interest of citizens to abide by the rules, because failure to do so can result in punishment. State's coercion of policies is legitimate, and performed by civil servants. The fundamental motivations of civil servants to enforce these policies are career advancement and bureaucratic stability provided by the state. Hierarchical control can be successful if state provides its citizens with security, equal and predictable treatment, and efficient mobilization of resources (Streeck and Schmitter, 1985).

The second mode of governance is community-governance, where citizens take care of themselves and solve problems on their own rather than relying on state. Community-governance is implemented via individuals' autonomous and voluntary efforts to deal with societal problems. As community-governance takes advantage of the information dispersed among citizens, it is less susceptible to the problems of moral hazard and adverse selection that plague hierarchical control (Bowles and Gintis, 2002). Community-governance is usually preferred over hierarchical control if the context is *diverse*, *complex*, and *dynamic* (Kooiman, 1999), because, in such a context, there is no single person, group, or organization that has the power, authority, knowledge, or resources to solve problems (Bryson and Crosby, 1993). Kooiman (1999) states that community-governance requires three essential components: images, instruments, and actions. Images represent the "guiding light" of governance (e.g., a shared goal), and concern individuals' visions, knowledge, facts, judgments, ends, goals, etc. Instruments are tools that enable individuals to enact their images. They can be either "soft" (such as information, peer pressure, bribe, etc.), or "hard" (such as covenants, agreements, etc.). Actions are putting instruments into effect, and thereby implementing images.

GOVERNANCE IN KNOWLEDGE MANAGENT

The concept of governance is relevant to the management of knowledge repositories because managing the quality of knowledge assets and increasing their value are salient "problems" that can be solved using hierarchical control and/or community-governance. In this context, hierarchical control corresponds to *expert-governance*, where experts or supervisors act as referees, and accept or reject individual contributions to a knowledge repository. If submissions are not up to par, experts may require authors to revise their submissions, or edit the submissions themselves before publishing them in the repository. In doing so, experts exert political or knowledge power on individual contributors. Any revisions to published content can also be subjected to a similar process, where experts or supervisors evaluate change requests and allow changes that are deemed necessary. From a design perspective, the technology behind refereed repositories is geared toward storing and disseminating knowledge, while relying heavily on experts' editing/control processes to ensure the quality of information in these repositories.

Alternatively, organizations may employ *community-governance,* where a community of users may autonomously and voluntarily signal the quality of knowledge assets by reviewing, rating, and editing existing content. The design of such repositories is fundamentally different from that of an expert-governed repository in that community-governed repositories must provide technological features allowing a wide range of users to *review, edit,* and *rate* existing content. These features enable bi-directional information flow between the repository and the community of users. Therefore, the repository not only stores and disseminates knowledge assets, but also accepts inputs from the community. This discussion leads us to propose two somewhat intuitive propositions that still warrant empirical investigation:

> *P1a: Expert governance increases the quality of knowledge assets in organizational knowledge repositories.*

> *P1b: Community governance increases the quality of knowledge assets in organizational knowledge repositories.*

Which governance mechanism is preferred and when?

Although both governance mechanisms are currently in use within organizations, industry reports suggest that there is a trend toward community-governance, implemented through technologies such as blogs and wikis (McKinsey, 2008). However,

current literature doesn't provide any guidance on which governance mechanism is more effective and under what circumstances. In order to answer this question, we examine two guiding principles in the governance literature.

The first principle relates to the knowledge sharing context. Sociologists have argued that when the context is dynamic, complex, and diverse, hierarchical control is likely to fail as no single person, group, or organization is likely to have the necessary power, authority, knowledge, or resources to solve the complex problems of a diverse group (Bryson and Crosby, 1993; Kooiman, 1999). Within a KM context, the diversity, complexity, and dynamism of organizational processes may render experts' knowledge inadequate to evaluate knowledge contributions, and no single expert or group of experts are likely to have the knowledge or resources to maintain knowledge assets of the highest quality. This, in turn, may lead to publishing inaccurate or outdated information, or rejecting valuable information, which can dissuade knowledge workers to use knowledge repositories. Under such circumstances, the diverse knowledge base of a large community is better suited for ensuring the quality of knowledge assets. This leads us to propose:

> *P2: When the context is diverse, complex, and dynamic, community-governance is more effective than expert-governance in ensuring the quality of knowledge assets.*

Second, the information culture within an organization can predispose an organization to a specific governance mechanism. Information culture is an organizational norm that represents employees' values and attitudes toward information (Davenport, 1997), and can either be open or closed. An open information culture promotes unrestricted flow of information among employees, whereas a closed information culture discourages information flow as information is seen as a source of power (Davenport, 1997; Davenport and Prusak, 1998). An organization with an open information culture should be more receptive to community-governance as employees are more likely to share knowledge and review, edit, and rate existing knowledge assets. On the other hand, expert-governance may be more effective for organizations with closed information culture where employees would not share knowledge or review, edit, and rate knowledge assets anyway. This leads us to propose:

> *P3: Community governance is more effective within organizations with open information culture, whereas expert-governance is more effective in those with closed information culture.*

Impact of governance mechanisms on knowledge contribution

Knowledge contribution is critical for the success of any KM initiative, because if employees do not contribute to a knowledge repository, it is not possible to enjoy the benefits of KM in the first place (Ba et al., 2001; Kankanhalli, Tan and Wei, 2005). For this reason, many studies in the literature have attempted to identify determinants that are salient to increasing knowledge contribution behaviors. Many of these suggested determinants are rooted in social capital theory (e.g., Chiu, Hsu and Wang, 2006; Wasko and Faraj, 2005), task-technology fit theory (e.g., Lin and Huang, 2008), collective effort model (e.g., Cosley, Frankowski, Kiesler, Terveen and Riedl, 2005), social exchange theory (e.g., Cummings, Butler and Kraut, 2002; Jarvenpaaa and Staples, 2000; Kankanhalli et al., 2005; Koh, Kim, Butler and Bock, 2007; Constant, Kiesler and Sproull, 1994), theory of planned behaviors (and its variants, e.g., Bagozzi and Dholakia, 2002; Bock, Zmud, Kim and Lee, 2005; Chow and Chan, 2008; Dholakia, Bagozzi and Pearo, 2004), expectancy theory (e.g., Kalman, Monge, Fulk and Heino, 2002), and expectation-confirmation theory (e.g., Chen, 2007). However, none of the studies in the literature have considered governance as an antecedent of knowledge contribution.

Governance mechanisms may play an important role in shaping users' knowledge contribution behaviors as contributors are subjected to the evaluative processes of experts or supervisors (in expert-governance), or their community of peers (in community-governance). Social psychology literature suggests that others' evaluations can be a salient determinant of individuals' behaviors (Brockner, 1988; Jones, 1973; Sweeney and Wells, 1990). If others' evaluations of one's actions are favorable, the individual tends to continue performing the action, and possibly, even more frequently (Sweeney and Wells, 1990). In contrast, if one's action is evaluated unfavorably by others, his/her self-esteem determines future behaviors (Brockner, 1988; Jones, 1973). Brockner (1988) defines self-esteem as a trait that refers to "individuals' degree of liking or disliking for themselves" and goes on to state that "the essence of self-esteem is the favorability of individuals' characteristic self-evaluations" (p.11). If one is low in self-esteem, others' unfavorable evaluations may induce the individual to distance himself/herself from the target behavior and may even cause him/her to exhibit aversive behaviors. Therefore, low self-esteem individuals will be less likely to make future contributions to repositories if their contributions are evaluated unfavorably by experts or community of users. This discussion leads us to propose:

> *P4a: Experts' favorable evaluations to prior contributions increase users' future contributions to expert-governed repositories.*

> *P4b: Experts' unfavorable evaluations to prior contributions decrease users' future contributions to expert-governed repositories if users are low in self-esteem.*

P5a: Favorable reviews, edits, and ratings to prior contributions increase users' future contributions to community-governed repositories.

P5b: Unfavorable reviews, edits, and ratings to prior contributions decrease users' future contributions to community-governed repositories if users are low in self-esteem.

A more interesting question regarding knowledge contributions is which governance mechanism induces individuals to make more contributions. The answer lies in the individuals' innate propensity to maintain a positive self esteem (Brockner, 1988; Leary, Tambor, Terdal and Downs, 1995). It is argued that individuals, by their nature, seek situations that boost their self-esteem, and avoid situations or actions that lower their self-esteem. In expert-governance, individuals' self-esteem can be threatened if they think that experts or supervisors may perceive their contribution as incompetent or rate their performance poorly. This, in turn, can prevent one from making contributions to expert-governed repositories. However, the threats are more severe in community-governance as the entire community of users (as opposed to a handful of experts) can perceive the contributor as incompetent. This time, one's self-esteem in the eyes of the entire community of users is on the line. Therefore, individuals can be less willing to make contributions to community-governed repositories as being perceived as incompetent by the entire community of peers is more damaging to self-esteem than being perceived as incompetent by only a few experts. This leads us to propose:

P6: Users are less likely to make contributions to community-governed repositories than expert-governed repositories.

Impact of governance mechanisms on knowledge reuse

Governance mechanisms not only influence users' contributions to knowledge repositories, but also influence their reuse of knowledge in such repositories. Studying knowledge reuse is crucial, because organizational KM initiatives are futile if knowledge workers do not reuse knowledge assets in their everyday tasks (Ba et al., 2001; Markus, 2001).

Current literature on knowledge reuse draws primarily upon the Elaboration Likelihood Model (ELM; Petty and Cacioppo, 1986) to understand the factors that determine knowledge reuse (e.g., Dijkstra, 1999; Fadel, Durcikova and Cha, 2008; Mak, Schmitt and Lyytinen, 1997; Sussman and Siegal, 2003; Zhang and Watts, 2008). These studies suggest that knowledge reuse is a function of information quality (i.e., central route) and source credibility (i.e. peripheral route), contingent upon knowledge worker's expertise and involvement in the subject matter (i.e., elaboration likelihood).

Of these constructs, source credibility is problematic in both governance mechanisms for two reasons. First, the ability of knowledge repositories to transcend locality and reach out to wider audiences reduces the likelihood that individuals know each other and have judgments about each others' credibility. Second, the notion that content is governed by experts or a community of users can reduce the salience of source credibility. For instance, experts' or user community's involvement in the processes by which contributed information is vetted, edited, and formatted can induce individuals to consider the credibility of expert-governance or community-governance rather than source credibility. Inconsistent empirical findings reported in the literature provide support for this argument. Studies that investigate non-refereed information – such as the ones provided in emails or discussion forums – find source credibility to be significant (Sussman and Siegal, 2003; Zhang and Watts, 2008), while studies that investigate refereed repositories find it to be non-significant (Boh, 2008; Fadel et al., 2008). Therefore, if individuals have confidence in expert-governance, they may reuse a knowledge asset even if it comes from a less credible source. Similarly, reusing knowledge from community-governed repositories may induce individuals to take into account the *intellectual capital* of the community. Consequently, if an individual has confidence in community's intellectual capital, she may be more likely to reuse knowledge. Therefore, we propose:

P7: Confidence in expert-governance positively impacts knowledge reuse from expert-governed repositories.

P8: Confidence in the community's intellectual capital positively impacts knowledge reuse from community-governed repositories.

While reusing knowledge from community-governed repositories, *actions* of the community of users are also important. As mentioned earlier, actions are putting instruments (i.e., reviewing, editing, and rating) into use. Actions can inform individuals of the quality of knowledge assets and promote knowledge reuse. For instance, if a knowledge asset is edited by many users (many of whom may be potential experts), individuals can be more likely to have faith in and reuse that knowledge. Similarly, individuals are more likely to reuse a knowledge asset if it receives favorable reviews and ratings from the community of users. These expectations lead us to propose:

P9: The extent to which a knowledge asset is edited is positively related to knowledge reuse from community-governed repositories

P10: The favorableness of reviews and ratings is positively related to knowledge reuse from community-governed repositories

Reusing knowledge from community-governed repositories may also depend on the intellectual capital of the community and the community's actions. For instance, if the community's actions are inadequate, the mere existence of intellectual capital alone may not be adequate to induce individual users to reuse knowledge. Similarly, if individuals lack confidence in the community's intellectual capital, they can reuse knowledge only to a limited extent if they solely take community's actions into account. This suggests a moderating relationship, where knowledge reuse depends on the interaction between intellectual capital and actions. Therefore we propose:

P11: Community's intellectual capital positively moderates the relationship between community's actions and knowledge reuse from community-governed repositories

CONCLUSION

The goal of this study was to investigate different approaches to managing knowledge assets in knowledge repositories. Specifically, we investigated two research questions: (1) which governance mechanism is preferred and when; and (2) how do governance mechanisms impact knowledge contribution and reuse? To answer the first question, we started with the literature on governance to understand the two different governance mechanisms employed to solve societal problems. Then, we extended these mechanisms to the context of KM to understand how organizations solve the problem of managing their knowledge assets in knowledge repositories. Our discussion revealed two conditions that help determine which governance mechanism to choose: the complexity, dynamism, and diversity of the context; and the information culture. We argued that if the context is complex, dynamic, and diverse, community-governance can be more preferable to increase the quality of knowledge assets. We also proposed that an open information culture favors the use of community-governance, whereas a closed information culture favors the use of expert-governance.

Our investigation of the second research question showed that governance mechanisms can have different effects of knowledge contribution and reuse. For knowledge contribution, since both governance mechanisms evaluate individuals' contributions, negative evaluations are likely to inhibit contribution behaviors especially if contributors are low in self-esteem. We also proposed that individuals will be less likely to contribute to community-governed repositories, since negative evaluations of the community of users pose a greater threat to self-esteem. For knowledge reuse, we proposed that source credibility, as identified in the prior literature, is less salient for both governance mechanisms. Instead, individuals are more likely to take into consideration the efficacy of expert-governance and community's intellectual capital. Further, we suggested that the way the community of users enact their goals using governance instruments can impact knowledge reuse.

As the next step of our research, we are designing an empirical study to test the propositions discussed above. The study will be conducted at a major consulting firm located in the southeastern United States that has implemented expert-governance and community-governance in two separate knowledge repositories. In the first repository, experiences and lessons submitted by consultants are vetted, edited, and controlled by in-house experts, while in the second repository, similar knowledge assets are maintained in a community wiki that is rated, reviewed, and edited by the consultant community at large. Both repositories are available to all consultants, and their usage is voluntary. This "natural control" provides us a unique opportunity to make comparisons between the two governance mechanisms, understand the conditions that make them more preferable, and study consultants' contribution to and reuse from these repositories. When completed, this study will be one of the first studies to empirically examine the role of governance mechanisms within the context of KM in organizations.

This study has two theoretical implications. First, we introduce the concept of governance to the KM literature. Governance helps us understand how organizations can render their knowledge assets more valuable, thereby promote knowledge contribution and reuse. Although the governance mechanisms discussed in this paper are not new, their role within the context of knowledge contribution and reuse has not been previously explored in the KM literature. The concept of governance may also be important for other contexts such as virtual teams or communities of interest, which increasingly rely on electronic repositories to exchange knowledge.

Second, we propose new explanations for knowledge contribution and reuse based on the concept of governance. Despite many attempts in the literature, there is still a great deal of unexplained variance for both knowledge contribution and reuse. The constructs and concepts discussed in this paper have the potential to reconcile some of the inconsistent findings in the literature, create new directions for research, and increase the explanatory power of existing theoretical frameworks.

An important practical implication of this paper is that we inform organizations of two mechanisms that help manage knowledge assets in knowledge repositories. Organizations can easily manipulate the technological features of their

repositories to implement one of the two mechanisms (or hybrid solutions) in an effort to increase the quality of their knowledge assets, and thus, promote KM. Since many KM initiatives rely on either expert or community-governance, a lack of understanding of these mechanisms or their ramifications can easily undermine organizations' efforts, and inhibit KM initiatives.

REFERENCES

1. Ba, S., Statlaert, J., and Whinston, A.B. (2001) Research Commentary: Introducing a Third Dimension in Information Systems Design-The Case for Incentive Alignment, *Information Systems Research*, 12, 3, 225-239.

2. Bagozzi, R.P., and Dholakia, U.M. (2002) Intentional social action in virtual communities, *Journal of Interactive Marketing*, 16, 2, 2-21.

3. Bock, G.-W., Zmud, R.W., Kim, Y.-G., and Lee, J.-N. (2005) Behavioral Intention Formation in Knowledge Sharing: Examining The Roles of Extrinsic Motivators, Social-Psychological Forces, and Organizational Climate, *MIS Quarterly Vol*, 29, 1, 87-111.

4. Boh, W.F. (2008) Reuse of knowledge assets from repositories: A mixed methods study, *Information & Management*, 45, 365-375.

5. Bowles, S., and Gintis, H. (2002) Social capital and community governance, *The Economic Journal*, 112, 419-436.

6. Brockner, J. (1988) Self-Esteem at Work: Research, Theory, and Practice, Lexington Books, Lexington, Massachusetts.

7. Bryson, J.M., and Crosby, B.C. (1993) Policy Planning and the Design of Forums, Arenas and Courts, in: *Public Management,* B. Bozeman (ed.), Jossey Bass, San Francisco, CA.

8. Chen, I.Y.L. (2007) The factors influencing members' continuance intentions in professional virtual communities a longitudinal study, *Journal of Information Science*, 33, 4, 451-467.

9. Chiu, C.M., Hsu, M.H., and Wang, E.T.G. (2006) Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories, Decision Support Systems, 42, 3, 1872-1888.

10. Chow, W.S., and Chan, L.S. (2008) Social network, social trust and shared goals in organizational knowledge sharing, *Information & Management*, 45, 458-465.

11. Constant, D., Kiesler, S., and Sproull, L. (1994) What's Mine Is Ours, or Is It? A Study of Attitudes about Information Sharing, Information Systems Research, 5, 4, 400-421.

12. Cosley, D., Frankowski, D., Kiesler, S., Terveen, L., and Riedl, J. "How oversight improves member-maintained communities," in: *Proceedings of the SIGCHI conference on Human factors in computing systems*, ACM, Portland, Oregon, USA, 2005.

13. Cummings, J.N., Butler, B., and Kraut, R. (2002) The quality of online social relationships, *Communications of the ACM*, 45, 7, 103-108.

14. Davenport, T.H. (1997) Information Ecology, Oxford University Press, Oxford, England.

15. Davenport, T.H., and Prusak, L. (1998) Working Knowledge: How Organizations Manage What They Know, Harvard Business School Press, Boston.

16. Davenport, T.H., Prusak, L., and Strong, B. "Business Insight (A Special Report): Organization; Putting Ideas to Work: Knowledge management can make a difference -- but it needs to be more pragmatic," in: *Wall Street Journal (Eastern Edition)*, 2008, p. R.11.

17. Dholakia, U.M., Bagozzi, R.P., and Pearo, L.K. (2004) A social influence model of consumer participation in network- and small-group-based virtual communities, *International Journal of Research in Marketing*, 21, 3, 241-263.

18. Dijkstra, J.J. (1999) User Agreement with Incorrect Expert System Advice, *Behavior & Information Technology*, 18, 6, 399-411.

19. Fadel, K.J., Durcikova, A., and Cha, H.S. (2008),"Elaboration Likelihood in Knowledge Management: A Model and Experimental Test," in (Eds.), *Proceedings of the 41st Hawaii International Conference on System Sciences,* , Hawaii, 359-368.

20. Jarvenpaaa, S.L., and Staples, D.S. (2000) The use of collaborative electronic media for information sharing: an exploratory study of determinants, *Journal of Strategic Information Systems*, 9, 129-154.

21. Jones, S.C. (1973) Self- and Interpersonal Evaluations: Esteem Theories versus Consistency Theories, *Psychological Bulletin*, 79, 3, 185-199.

22. Kalman, M.E., Monge, P., Fulk, J., and Heino, R. (2002) Motivations to Resolve Communication Dilemmas in Database-Mediated Collaboration, *Communication Research*, 29, 2, 125-154.

23. Kankanhalli, A., Tan, B.C.Y., and Wei, K.-K. (2005) Contributing to Electronic Knowledge Repositories: An Empirical Investigation, *MIS Quarterly*, 29 1, 113-143.

24. Koh, J., Kim, Y.G., Butler, B., and Bock, G.W. (2007) Encouraging participation in virtual communities, *Communications of the ACM*, 50, 2, 69-73.

25. Kooiman, J. (1999) Social-Political Governance, *Public Management Review*, 1, 1, 67-92.

26. Kooiman, J., and Bavinck, M. (2005) The Governance Perspective, in: *Fish for Life: Interactive Governance for Fisheries,* J. Kooiman, S. Jentoft, R. Pullin and M. Bavinck (eds.), Amsterdam University Press.

27. Leary, M.R., Tambor, E.S., Terdal, S.K., and Downs, D.L. (1995) Self-esteem as an interpersonal monitor: the sociometer hypothesis, *Journal of personality and social psychology*, 68, 3, 518-530.

28. Lin, T.-C., and Huang, C.-C. (2008) Understanding knowledge management system usage antecedents: An integration of social cognitive theory and task technology fit, *Information & Management*, 45 410-417.

29. Mak, B., Schmitt, B.H., and Lyytinen, K. (1997) User Participation in Knowledge Update of Expert Systems, *Information & Management Science*, 32, 2, 55-63.

30. Markus, M.L. (2001) Toward a Theory of Knowledge Reuse: Types of Knowledge Reuse Situations and Factors in Reuse Success, *Journal of Management Information Systems*, 18, 1, 57-93.

31. McKinsey (2008) Building the Web 2.0 Enterprise: McKinsey Global Survey Results, *The McKinsey Quarterly*, Available at http://www.mckinseyquarterly.com/Building_the_Web_20_Enterprise_McKinsey_Global_Survey_ 2174, Accessed on January 24, 2009

32. Moreland, R.L., and Sweeney, P.D. (1984) Self-expectancies and reactions to evaluations of personal performance, *Journal of Personality*, 52, 2.

33. Petty, R.E., and Cacioppo, J.T. (1986) Communication and Persuasion: Central and Peripheral Routes to Attitude Change, Springer-Verlag, New York.

34. Schuler, D. (1994) Community networks: building a new participatory medium, *Communications of the ACM*, 37 1, 38-51.

35. Streeck, W., and Schmitter, P.C. (1985) Community, Market, State-and Associations? The Prospective Contribution of Interest Governance to Social Order, *European Sociological Review*, 1, 2, 119-138.

36. Sussman, S.W., and Siegal, W.S. (2003) Informational Influence in Organizations: An Integrated Approach to Knowledge Adoption, *Information Systems Research*, 14, 1, 47-65.

37. Sweeney, P.D., and Wells, L.E. (1990) Reactions to Feedback about Performance: A test of three Competing Models, *Journal of Applied Social Psychology*, 20, 10, 818-834.

38. Wasko, M.M., and Faraj, S. (2005) Why should I share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice, *MIS Quarterly*, 29, 1, 35–57.

39. Zhang, W., and Watts, S.A. (2008) Capitalizing on Content: Information Adoption in Two Online communities, *Journal of the Association for Information Systems*, 9, 2, 73-94.