Where is the Theory in Wikis?¹

In “The Shoemaker’s Children: Using Wikis for IS Teaching, Research, and Publication”, Kane and Fichman argue that wikis will enable the IS discipline. The Wikipedia database will enable IS research, the transparency of wikis will enable peer-reviews of manuscript submissions to our IS journals, and the tracking and open contributions on wikis will enable IS teaching.

I completely agree with an underlying assumption of the paper: for the IS field to advance, IS researchers should try innovative technologies and practices. Trying innovative technologies not only provides closer connections to the students, but often stimulates ideas for research as well as an appreciation of the challenges faced by users in working with new technologies. While the authors focus on wikis, I would argue that this assumption should apply to all Web 2.0 technologies. Web 2.0 consists of much more than wikis: social networking tools, mashups, blackberries, MMORPGS (massively multi-player online role-playing games), online prediction markets, tagging, folksonomies, jam sessions, and virtual worlds. While I am quite supportive of the notion of a Wikipedia project on IS, I would suggest that IS researchers not be constrained to Wikipedia for creating publicly accessible IS projects. IS researchers should consider starting a topic on the Programmable Web for research on mashups; create a Facebook profile for IS academics or IS research topics; grow a Linked-In network that connects IS academics to IS professionals; contribute to the IS island on Second Life; hold electronic jam sessions instead of (or in addition to) ICIS; create a mashup hub on IS World where mashups can be posted and statistics on their usage can be tracked; and host online prediction markets where the IS academic community votes on important future options that might affect our lives and research, such as salaries, class enrollments, where our students will be placed next year, new technologies that might have an impact on our theories, new theories that might have an impact on technologies, etc. Apparent from these comments is that Kane and Fichman’s suggestions that we, as IS scholars, should try new technologies will clearly be helpful to the IS community, especially if the IS community expands upon their suggestions to consider the vast array of Web 2.0 technologies beyond wikis.

Despite the importance of the Kane and Fichman’s message, a critical issue that should not be ignored is that, as scholars, we would want to not just try wikis, but we should treat them as a scholarly pursuit. We need to recognize that wikis may be just another tool for which existing theories already account for their adoption, adaptation, communication, and group dynamics. My research on wikis funded by the Society for Information Management with Chris Wagner and Dave Yates (Majchrzak et al 2006; Wagner and Majchrzak 2007) indicates that theories of cognitive coping (Beaudry and Pinnsonault 2005), elaboration likelihood (Sussman and Segal 2003), adaptive structuration (DeSanctis & Poole 1994), collaborative elaboration (Majchrzak et al 2005; O’Donnell and O’Kelley 1994), hidden profiles (Stasser 1999), apprenticeship (Lave and Wenger 1991), team adaptation (Burke et al 2006), ease of use (Davis 1989), social identity in online groups (Bagozzi and Dholakia 2006), social capital (Nahapiet and Ghoshal 1998), etc predict quite nicely to behaviors that are observed in organizational

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wikis. For example, many people do not edit others’ work on a corporate wiki in part because they feel that they would be publicly criticizing the other person, thereby harming their acceptance in the community – a finding predictable by existing apprenticeship models of socialization (Lave and Wenger 1991). Similarly, theories on coping with new technologies (Beaudry and Pinsonneault 2005) predict why we find many people not willing to change their practices and adopt wiki norms (Leuf and Cunningham 2001). Social capital theory (Nahapiet and Ghoshal 1998) predicts why many people do not contribute to wikis, leaving the existing wikis on IS World underutilized. I would argue, then, is that, as researchers, we need to push ourselves in understanding what is different about wikis – in terms of affordances, functionalities, and behavioral use patterns – compared to existing collaborative technologies which will help us derive new theories or refine our existing theories.

von Hippel and von Krogh’s (2003) perspectives piece on the open source software (OSS) development community provides an exemplar of how we might use new Web 2.0 technologies to derive new theory. In that piece, von Hippel and von Krogh argue that OSS takes some of the characteristics of the private investment model of innovation and some of the characteristics of the collective action model of innovation and combines them into what they call a private-collective innovation model. They argue that this new model requires fundamental revisions to our theories about innovation.

To create an equivalent theoretical piece for wikis requires that we first think about wiki use-cases as distinguishably different genres (Orlikowski and Yates 1994). We recognize that a wiki used to create an article with a neutral point of view, for example, is fundamentally different from a wiki used to evaluate others’ ideas (as in teaching or peer reviews). Second, we conceptualize, in theoretical terms, the unique affordances that wikis provide. To name a few, these include democratization of contributions (e.g., leveling the playing field so anyone can contribute an idea), new emergent roles in moving conversations forward (pruning, identifying holes needing more discussion, naming conventions, etc), community-based policing, and separation of dialogue from decision. Third, we need to study how the web of relationships between the wiki functionalities, the organizational design, the norms of use, and the community affect how these affordances play out. Then, we need to re-look at IS theories and those in other disciplines to argue why Web 2.0 technologies may cause us to reconsider our previous theoretical assumptions. For example, theories of contributions to online communities assume that participants are motivated by social exchange (e.g., Roberts et al 2006) and/or social capital (Wasko and Faraj 2005). Yet many contributors to organizational wikis – what we call Shapers – organize others’ contributions not for social exchange or social capital motives, but instead because they are genuinely concerned about the organization’s ability to adapt to the needs of a volatile environment (Majchrzak et al 2006). Not only should findings like this encourage us as researchers to rethink social exchange and social capital theories, but also should encourage researchers in other domains, such as dynamic capabilities models (Eisenhardt and Martin 2000) to modify their theories to include information-shaping as an important dynamic capability of a firm.

In closing, the title of the article by Kane and Fichman, in which they reference a shoemaker’s child, carries an additional message that we should not ignore. The fact that a shoemaker’s child goes barefoot is not because the shoemaker intentionally keeps shoes
away from the child, but because of time and resource constraints. If one’s passion as an IS academic is personally trying out Web 2.0 technologies in innovative ways, then following the excellent suggestions of Kane and Fichman will help to fulfill that passion. If one’s passion is theory-building, though, watching how the use of Web 2.0 technologies fundamentally changes our theories may be more appropriate. Fortunately, in any vibrant community there is a need, and room for, participants of both persuasions.

References


