

“Buddy, Can you Spare a Fact”:

Sharing Information Online

Extended Abstract

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Sharing information is a promising prospect of networks. This project aims to experimentally investigate aspects of the propensity to share information online. We focus on system-induced status of information and how this status may affect the inclination of online system users to share information in business contexts.

We define information sharing online as providing a helpful response to a request for information in an electronic medium. The general consensus in the literature is that the tendency to use computers and networks to share information is largely a socio-behavioral issue. Our claim in this study is that system-controlled constructions of the ownership status of information play a major role (*ceteris paribus*) in the degree to which information is shared.

Information is, at times, a public good. A pioneering series of experiments on contribution of information to a discretionary database in a business game setting showed that some participants contribute while others free ride (Connolly and Thorn, 1990). These experiments also showed various effects on contribution rates such as asymmetry of costs, value of information or privatization. Privatization reduced free riding but did not eliminate it altogether. The root of under-contribution was that discretionary databases are public goods and therefore rational actors will choose to free ride. Privatization was the recommended solution to overcome the free rider problem. Another line of research on information sharing (Constant, Kiesler et al., 1994) relied on social exchange theory, predicting sharing based on self-interest and reciprocity. Expertise was perceived to be privately owned rather than owned by the organization. Information as product, a computer program, was perceived to be more organizationally owned. Sharing an organizationally owned information product was found to be mediated by prosocial transformation, people weighed the social good more than their personal benefits. In other words, private ownership supports sharing more than organizational ownership when it comes to tacit knowledge.

A survey of sharing in collaborative electronic media among university personnel (Jarvenpaa and Staples, 2000), provided further support: Information perceived to be owned by the organization was less likely to be shared. Organizationally owned information may be perceived as part of some “public domain”, yielding a reduced obligation to share it by a specific person. Information may be perceived as widely-available, regardless of its objective availability. In addition, knowing they are part of a group of equally-knowledgeable peers, people may exhibit a diffusion of responsibility and refrain from sharing (Latane and Darley, 1968; Latane and Rodin, 1969). On the other hand, a person who is an expert in her field and believes she is the only source for particular information may be more willing to share it, knowing that she will enjoy personal benefits such as gratitude and improved reputation. Thus an important motivator for information sharing may be personal ownership of information.

Jarvenpaa and Staples (2001) dealt subsequently with antecedents of the ownership perception. They reported a positive association between private and organizational ownership: knowledge workers believed that information products or expertise that they created were owned jointly by themselves and by the organization they worked for. Organizations should not assume that all information produced by their employees belongs only to the organization and base their information system design on this wrong assumption. Instead, it was suggested that co-ownership be nurtured. The present research examines ways to influence the perception of

ownership of information products in order to enhance sharing. Following Heider's (1958) theory of association and self-enhancement approaches (Baumeister, 1982; Brown and Smart, 1991) Beggan (1992) demonstrated experimentally that mere ownership increases individuals' valuations of objects. Expertise is part of a person's most personal endowment, his/her intellect. It follows that if personal endowments play an important role in the individual's self, then sharing such endowments without losing them, as is the case of sharing expertise, can serve to enhance one's self-image. The present research aims to show experimentally that mere ownership of information supports sharing both of expertise and of information products.

The propensity to share depends on the type of information shared: It is attributed to personal benefits when expertise is shared (Constant, Kiesler et al., 1994; Jarvenpaa and Staples, 2000), and to communality and organizational citizenship and culture when information products are shared (Fulk, Flanagin et al., 1996; Kiesler, Zdaniuk et al., 2000; Wasco and Faraj, 2000). Another factor likely to influence sharing is that the mechanism for sharing information is often copying. Sharing a copy leaves the originator in his/her original state less the cost of sharing. Not losing one's own possession of information seems likely to lower the barrier to information sharing. Still, we know that people do not participate equally in information sharing activities (Adar and Huberman, 2000).

The research question is: **How does the status of ownership of information, as expertise or as an information product, affect the propensity to share information?** The corresponding hypotheses are that private ownership fosters sharing and that information system mediated "privatizing" of organizationally owned information products may enhance sharing them. Privatization may carry some negative connotation related to control and pricing, however, in the context of information sharing, ownership is believed to enhance sharing.

A simple computerized business game was used to simulate a decision making situation. The game procedure required participants to use information, and enabled sharing information over instant messaging. The status of information, the manner in which it is presented by information systems, can be manipulated as the **independent variable**. We used a simple online business game called "The Lemonade Stand". In this game, participants made inventory, quality and pricing decisions in the management of a simple business. Decision rounds are termed "business days" and take about two minutes each to complete. The goal was to improve profits, based on an estimation of future demand. One parameter that affected this demand was the (simulated) weather condition. System-controlled information about weather predictions served as the central experimental stimulus. The **dependent variable** was the willingness to share information (WTS) collected from the response to personal and group Instant Messages (IM) sent by the experimenter under an alias identity requesting the sharing of information. Ownership was operationalized in two ways: (1) Implied in the labeling of weather information provided to the user: either expertise (assumed to be private), organizationally-owned content, or private content. And (2) By asking for shared information privately or publicly.

Is such a simple manipulation of the cognitive status of information sufficient to gain changes in sharing levels? Ownership emerges as a catalyst to the flow of information. Simple system changes that affect the manner in which information ownership is framed can significantly affect the degree of sharing. Sharing was higher for information described as privately owned expertise than it was for information products designated to be organizationally owned. Sharing was higher for privately owned expertise than it was for privately owned content. Ownership makes a difference. It serves to increase sharing of information.

Both the instantiation and the meaning of ownership of information are enigmatic and controversial. Often, it is discussed in the macro level relating to issues such as intellectual property, equity, social good, policy making or the tendency for formation of monopolies in the information industry (Levitan, 1982; Gandy, 2002; Lievrouw and Farb, 2003). The ambiguous ownership structure inherent in information together with the economies of scale required for market penetration and success are antecedents of the mixed information market which exists today, in which private and public goods are offered concurrently. This research has undertaken to investigate the micro level, the perception of ownership by individuals and how it affects their information choices and behavior. Despite its ambiguity information ownership makes a difference.