Association for Information Systems
AIS Electronic Library (AISeL)

2010

Responding to the (almost) unknown: Social representations and corporate policies of social media

Evgeny Kaganer
IESE Business School, ekaganer@iese.edu

Emmanuelle Vaast
Long Island University, emmanuelle.vaast@liu.edu

Follow this and additional works at: http://aisel.aisnet.org/icis2010_submissions

Responding to the (almost) unknown: Social representations and corporate policies of social media

Completed Research Paper

Evgeny Kaganer
IESE Business School
Avinguda Pearson, 21, Barcelona
ekaganer@iese.edu

Emmanuelle Vaast
Long Island University
1, University Plaza, Brooklyn, NY
emmanuelle.vaast@liu.edu

Abstract

End-user driven technologies, such as social media, have dramatically changed organizations' innovation processes. In these new contexts, organizational decision makers have to contend with a de facto adoption of new technologies that they have yet to understand fully. In order to contribute to the understanding of these new contexts and their implications for organizations and their decision makers, this paper examines the following question:
How do organizations come to comprehend and react to end-user driven technologies? Conceptually based on social representations theory, this paper underscores how organizational decision-makers develop common sense knowledge of end-user driven technologies and how they consequently endorse responses in the form of dedicated policies that reflect this knowledge. This theoretical framework helps us interpret the empirical analysis of 25 corporate social media policies. The paper shows that, in developing their understanding of social media, so far organizational decision-makers have mostly associated them with what was already familiar to them and have devised policies that have reflected this mostly conservative understanding of the new technologies. Implications of this research include a better understanding of the foundation of the duality between mindful and mindless innovations in the context.

Keywords: Social computing, Organizational sensemaking, Mindfulness, IT governance, policies, Web 2.0

Introduction

According to a report from a leading manufacturer of industrial firewall solutions, the organizational use of Google Docs, a cloud-based personal productivity suite rich in collaboration features, increased 300% between May and November 2009 (Palo Alto Networks 2009). Such a dramatic jump in Google Docs' use in organizational contexts is impressive, yet puzzling. Indeed, none of the leading industry analysts or blogs had reported an increase of similar magnitude in the enterprise adoption of Google Docs during that time. What this suggests, perhaps, is that the usage was not driven from the top, as it usually happens in the corporate environment. Instead, it was spearheaded by the end-users and took place mostly without corporate decision makers' (e.g. Information Technology - IT- function, Chief Information Officers) involvement and formal approval to adopt the new software. Due to the recent rise of cloud computing and web 2.0 applications, end-user driven adoption of new IT has become a fast-growing trend in the enterprise. This trend however clashes with established business applications infrastructures and traditional IT decision-making processes, thus presenting organizations with significant new challenges. It also demands that Information Systems (IS) scholars revisit traditional views on organizational diffusion and assimilation of new technologies, as some of the underlying assumptions do not hold in this new environment.

It has been widely acknowledged in the literature that a firm's engagement with IT innovation unfolds through several processes (Cooper and Zmud 1990; Fichman 1992; Gallivan 2001; Rogers 2003; Swanson 1994; Swanson and Ramiller 2004). With some variation, most authors agree that at least four such processes are important: viz., comprehension, adoption, implementation, and assimilation (Swanson and Ramiller, 2004). In the traditional context, the four processes are activated in a relatively sequential fashion. In case of end-user driven adoption, however, this order often breaks down. Comprehension, which under normal circumstances provides a point of departure, informs and shapes the firm's innovation journey, now has to be shifted into the time frame of implementation and assimilation processes. In other words, organizations today are often forced to respond to the de-facto adoption of a new technology before they have gotten to a point where they have a clear vision of what the technology is and how it can be applied in the firm's business context (Swanson and Ramiller, 1997). In this regard, because of their technical affordances end-user driven technologies push further the logic of "drift", bottom-up versus top-down, and local versus global implementation and use of IT (Boudreau and Robey 2005; Ciborra 2000; Rolland and Monteiro 2002). This, we believe, holds important ramifications for our theorizing about how organizations innovate with IT. In this paper, we take a first step towards uncovering what these ramifications are. More specifically, we seek to answer the following research question: *How do organizations come to comprehend and respond to end-user driven technologies?*

Insofar as our focus is on comprehension rather than on actual use of IT, we adopt social representations theory as a conceptual lens to address our research question. Social representations can be defined as relatively stable, socially shared sets of common knowledge and ideas that help people make sense of focal phenomena (Moscovici 1963, 1973, 1984). A social representations perspective, we argue, can be especially illuminating in a context where organizational decision makers initially lack an established understanding of the new technology. In their attempts to comprehend the innovation, they rely upon an emerging social representation of the new technologies that also shapes what they consider as appropriate response to the innovation.

The innovation in focus in our research is social media. More specifically, we examine emerging social representations of social media use in the enterprise held by organizational decision makers. Social media can be defined as online technologies of the "web 2.0" generation that allow users to easily and inexpensively generate and share content (e.g. social networking, blogging, wikis, micro-blogging etc.) (Murugesan 2007; O'Reilly 2007; Shirky 2009). Thanks to their technical characteristics, social media represent quintessential examples of end-user driven innovations. Indeed, social media are usually delivered through a variety of cloud-based tools, which require little (if any) upfront infrastructural investment and can be adopted and used with no formal training (Armbrust et al. 2010; Harrison and Barthel 2009; Safko and Brake 2009).

Social media have become a mainstay of the everyday online experience of individuals, affecting a wide range of domains - from the personal to the political and the professional (Gillin 2009; Kane et al. 2009; Komito and Bates 2009; Piskorki and McCall 2010; Stolley 2009). In recent years, social media have also made foray into organizations. Social networks, wikis, blogs, and micro-blogging services have spread across core business functions, facilitating and enhancing communication and collaboration within and outside of traditional organizational boundaries (Bonabeau, 2009; Cisco 2010).

Many, if not most, of these initiatives originate in a bottom-up fashion, being driven by active end-users (Cisco 2010). These are often younger employees who actively participate in online social media in their personal lives

(Vaast 2010) Organizational decision makers, in this context, have to devise responses to the uses of social media in the enterprise at the same time or even after these uses have taken place. Accordingly, for many decision makers, this shortens the time they have to develop nuanced understanding of social media, which in turn affects organizational responses to the innovation.

Formal policies are tools that are most readily available to organizational decision makers to shape actions of employees and other stakeholders. When it comes to the use of social media in the enterprise, policies are a governance vehicle of choice at most organizations (Gartner group 2010, Kane et al., 2010). Accordingly, in this research we examine corporate social media policies establishing rules associated with the use of social media by an organization and its employees. We conceptualize social media policies as reflecting organizational decision makers' espoused understanding of social media as well as constituting attempts to respond to the use of these technologies in the organizational context.

This paper is organized as follows. First, we detail a social representations framework that helps understand how organizational decision makers frame their emerging understanding of social media, as well as how they develop responses to the social media use. We claim that, in particular, organizational decision makers devise policies that reflect their emergent espoused understanding (Argyris and Schön 1974; 1978). We illustrate this framework empirically by analyzing 25 corporate social media policies. The methods section details our data and the analytical procedures we followed. We then present our empirical findings and show that, so far, social media policies reveal organizational decision makers' relatively limited understanding of the specifics of social media and their consequently mostly generic responses to it. We discuss implications of these findings by situating them with regard to the mindfulness / mindlessness of innovation continuum. We conclude by summarizing the paper and its main conceptual and practical contributions, acknowledging its limitations and suggesting several worthwhile areas for future research.

End-user driven technology adoption: A social representations perspective

This section presents essential elements of social representations theory that help illuminate the delicate situation that organizational decision makers face as they have to develop an understanding of and respond to unfamiliar new technologies that have become widely and swiftly adopted by end-users.

Social representations theory

Social representations theory has been one of the foremost theories in social psychology for the last 50 years (Farr and Moscovici 1984; Markova 1996; Moscovici 1961; Voelklein and Howarth 2005; Wagner et al. 1999). Its proponents have especially relied on the concept of social representations to understand the relationships between the social construction of knowledge, communication, and action (Billig 1993; Ginges and Cairns 2000; Moscovici 2001a, 2001b). IS research has relied upon social representations theory in order to examine important socio-cognitive dynamics and their relationships with IS implementation, use, and perceptions (Contarello and Sarrica 2007; Gal and Berente 2008; Pawlowski et al. 2007; Vaast 2007; Vaast et al. 2006).

Social representations offer means through which people "make the unfamiliar familiar" (Moscovici 1984). They correspond to "common sense" knowledge that helps people give meaning to phenomena to which they are confronted (Jodelet 1989; Moscovici and Markova 1998). Social representations are usually conceived as structured around a *core* and some *peripheral* elements (Abric 1994; Pawlowski et al. 2004). Core elements of the representation have a "generating function" (Abric, 2001) that gives meaning and value to the other elements. Social representations' core elements tend to be more stable than peripheral elements. The latter can help people adapt their understanding of a fluctuating situation without drastically changing the core elements of their representation (Flament 1994).

Moreover, social representations emerge and get stabilized through two interdependent socio-cognitive processes that are in tension with each other: anchoring and objectification (Castro and Gomes 2005; Markova 2000). Anchoring is a process of classifying, naming, etc., whereby people attempt to understand new phenomena by relating them to what they already understand (Moscovici 1984). Anchoring is a stabilizing process through which new phenomena are integrated into existing categories (Castro and Batel 2008). For instance, in the early 1980's, the AIDS epidemic became understood for many as a new instance of the established category of venereal diseases (Markova 2000).

While anchoring involves incorporating the understanding of new phenomena into existing social representations, objectification is the process of forming new meaning of the phenomenon in question. Objectification is a sense-

making process through which people reconstruct existing representations and develop new ones as they "concretize" (Markova 2000; Moscovici 1984) their initial perception into an actual conception of the new phenomenon. For instance, people who live in an autocratic regime may anchor their representation of democracy to common thinking about freedom or justice. If their country becomes democratic, as they encounter new instances of oppression and injustice, people are likely to objectify democracy in original ways, to develop a new social representation that can help them make sense of their perceptions of the regime (Markova et al. 2000; Markova et al. 1998).

Anchoring and objectification are in dialogical relationship with each other and the tension in their relationship conditions the emergence and transformation of dominant common sense knowledge of focal phenomena (Dodds et al. 1997; Doise 1993; Markova 2000; Valsiner 2003).

A social representations perspective on technology innovation

Social representations theory illuminates important aspects of the new environment that organizational decision makers (e.g. managers, CIOs) face when confronted with the end-user driven diffusion of new technologies. Such diffusion processes differ from the traditional pattern of adoption and innovation of technology (Fichman 1992; Swanson and Ramiller 2004). From a social representations perspective, the traditional innovation pattern starts with organizational decision makers first developing a shared understanding of the new technology. This initial comprehension builds upon (and sustains) an organizing vision for the focal innovation (Swanson and Ramiller 1997) and results in the emergence of a local social representation of the technology - that is, a representation held by decision makers within a particular organization. Decision-makers will then decide whether or not to adopt and implement the technology and, if yes, how to facilitate end-users' adoption and learning processes (Swanson & Ramiller, 2004).

In the case of end-user driven technologies, an "active minority" (Moscovici 1979) of end-users leads a de facto adoption. Along with their uses, these end-users develop their own representations of the technology. Organizational decision makers, in this context, have to react to this adoption possibly before they have been able to develop rich contextualized interpretations of the new technology (Swanson and Ramiller, 2004). In such situations, then, the expected sequence of innovation does not hold (Swanson & Ramiller, 2004). Organizational decision makers' comprehension of the technology plays "catch up" to end-users' own representations and practices of the technology. To comprehend the innovation, organizational decision makers will rely upon anchoring (whereby the comprehension of the technology is related to what is already known and understood) and / or objectification (whereby a new social representation of the technology is being formed). In order to understand better how organizational decision makers come to comprehend new technologies in the context of end-user driven adoption, we shall empirically explore how each of these processes and the interactions between the two affect the development of the underlying social representation of the technology.

Organizational policies: organizations' responses to end-user driven innovation

Organizational decision makers do not only have to develop an understanding of an end-user driven innovation, but they also need to be able to respond to it on behalf of the organization as a whole. Organizational decision makers, therefore, have to develop ways to guide and direct end-users. This guidance usually concerns what end-users can and cannot do with the technology in the organizational context as well as whether and how their use of the technology should be incorporated into their organizational membership. The formulation of policies is one of the most prevalent tools employed by managers to communicate the formal position of an organization on a variety of matters, including use of IT innovations and traditional media (e.g. Badaracco 1998; Johnson and Gelb 2002; Sambamurthy and Zmud 1999; Sonnenfeld 1994; Sprague 1995; Webster and Trevino 1995). In this sense, policies communicate the organization's official stance in regard to a focal phenomenon and, when enforced, aim at conditioning end-users' practices (Castro and Batel 2008).

From a social representations' perspective, how organizational decision makers comprehend a focal phenomenon helps them act and react towards it, as well as communicate about it (Liu 2004; Moscovici and Markova 1998). The policies they devise regarding the phenomenon, therefore, reflect the prevalent comprehension held by the decision makers (Basselier et al. 2001; Merand 2006). Of course, policies do not reflect individual decision makers' full and nuanced understanding of a focal phenomenon. Policies are therefore not "reality" and may not capture the entirety of the underlying social representation. Nonetheless, they provide an expression of an espoused conception of the phenomenon held by organizational decision makers (Argyris and Schön 1974, 1978). Furthermore, policies make this conception explicit as they enforce it as the "rule" of the organization.

In the case of end-user driven innovation, given the speed of bottom-up adoption and the high rate of innovation, managers have to devise responses (policies) just as they start to make sense of the innovation (Sambamurthy and Zmud 2000). Therefore, organizational policies aimed at governing end-users' driven innovations are being informed and shaped by decision makers' nascent social representation of the innovation. These policies based on a particular comprehension of end-user driven innovation also correspond to decision makers' attempt to shape end-users' initiatives and to control the assimilation of this new type of innovation in the enterprise.

In sum, social representations theory offers a relevant socio-cognitive lens that illuminates how organizational decision makers make sense of innovations such as social media and accordingly develop responses to these innovations. This lens in particular underscores tensions between anchoring (aimed at understanding new phenomena in terms of existing representations) and objectification (that builds a specific new representation of a focal phenomenon). A social representations perspective also suggests that organizational decision makers react to innovations such as social media by developing policies that reflect their social representations of these technologies. In order to illustrate this framework and explore our research question empirically, we have investigated current policies regulating social media use at organizations. We discuss the empirical part of our study next.

Methods

To capture social representations of the social media use in the enterprise held by organizational decision makers, we have collected and analyzed 25 corporate policy documents concerning this very topic. Again, we chose to focus on policies as our primary data source because: (1) polices have been shown to reflect social representations of social actors involved in policy formulation (Merand, 2006), and (2) end-user policies are currently a primary governance vehicle employed by organizations to respond to the employees' use of social media (Kane et al., 2009). The documents were obtained from an online public database of social media governance documents available at www.socialmediagovernance.com. From this database that contains more than a hundred documents we selected the aforementioned 25 based on the following criteria. First, we were interested in analyzing comprehensive policy documents that covered a wide range of social media tools and uses, instead of those focusing on a particular application, such as for example a "blogging policy". Second, in order to ensure a fairly representative nature of the sample we reviewed the entire database of policies and selected organizations from a variety of industries and sectors. The final list of organizations included in the sample, along with their industry affiliations and policy document titles are shown in Appendix 1.

The empirical literature on social representations is characterized by significant diversity of tools and methodological approaches used (Breakwell and Canter 1993; Doise et al. 1993; Farr 1993; Wagner et al. 1999). Nonetheless, common across all studies is a two-phase analytical approach wherein Phase 1 includes elicitation of content elements of a social representation and Phase 2 concerns the identification of key relationships among the elements and, often, a visualization of the representation's structure (Jung et al. 2009; Nicolini 1999; Pawlowski et al. 2007). Our study follows this general approach.

To accomplish Phase 1 and thus elicit elements of the social representation of social media, we employed an iterative inductive coding procedure. As the first step, two researchers independently coded 3 policy documents randomly picked from the data sample. We used Atlas.ti software to facilitate the coding process. A coding unit was defined as a segment of text no smaller than a sentence and no bigger than a paragraph. Multiple codes could be assigned to a single segment of text.

In the first coding round, no a-priori coding scheme was employed and codes were allowed to emerge from the data. This open coding approach is consistent with the epistemological foundations of the social representations theory, which require an interpretivist stance and assume that reality is socially constructed (Jung et al. 2009), After this initial coding was complete, the two sets of codes independently generated by the two researchers were reconciled and consolidated, resulting in a coding scheme of 35 codes. The reconciliation was carried out through discussions until we reached full consensus. Next, a second batch of 3 documents was drawn from the sample and independently coded by the two researchers, this time using the coding scheme from the first round as a starting point. Each researcher could modify and extend the coding scheme to capture themes and concepts emerging from the data. After the second round, the coding discrepancies were again reconciled through discussions and the number of codes was reduced to 20 to achieve better consistency of coding. The reduction happened through grouping of the related codes into higher-level categories. One more round of coding was carried out in a similar fashion to refine the coding scheme and ensure its consistent application. An additional code was eliminated at this point. After the coding scheme was finalized and documented, each researcher coded 8 more policy documents. In total, 25 policy documents were coded to elicit content elements of the social representation of social media use in the enterprise.

Table 1 shows the final set of 19 codes (i.e., elements of the social representation), along with their definitions and examples.

To accomplish Phase 2 of the analysis, we employed the analysis of similarity approach widely used in the social representations literature (Jung et al. 2009; Nicolini 1999; Pawlowski et al. 2007). More specifically, to understand better the structure of the social representation of social media use in the enterprise, we closely followed the analytical approach suggested by Pawlowski et al. (2007). To identify key relationships among the elements of the social representation, we generated an inter-attribute similarity matrix using Jaccard coefficient as the proximity metric. Based on this matrix, we then evaluated the core-periphery structure of the social representation by calculating the three indexes of salience, sum similarity, and coreness[1]. Results of our analysis are shown in Table 2.

Findings

In this section, we report key findings of our analysis of the social representation of social media use in the enterprise. Our discussion focuses on a few major themes that we have identified with respect to the core and peripheral elements of the representation.

Core Elements of the Representation

The three most prevalent core elements of the social representation (according to all three indexes, see Table 1) were "*Editorial Style Recommendations*", "*Misrepresentation and Disclosure of Information*", and "*Identify Yourself*". This grouping of core elements effectively suggests two things. First, in the absence of a clear understanding of the nature and ramifications of the new technological environment (i.e., social media), organizational decision makers fell back on what they knew well in their attempts to respond to it. In other words, organizational decision makers "anchored" their nascent comprehension of social media onto their existing social representations of organizational communications. They further built their response to social media in accordance with this anchoring phenomenon, which ultimately meant extending traditional communications policies into the social media space. For instance, the *Washington Post* policy emphasized that the editorial rules guiding the daily mission of the newspaper applied to the social media context: *"When using these networks, nothing we do must call into question the impartiality of our news judgment. We never abandon the guidelines that govern the separation of news from opinion, the importance of fact and objectivity, the appropriate use of language and tone, and other hallmarks of our brand of journalism." (Washington Post).*

The pervasiveness of editorial style recommendations in the analyzed policies suggested that organizational decision makers perceived social media as a new, web-based, way for the organization to convey its (traditional) message. Recommendations included explicit style advice, but did not usually make specific references to the actual characteristics and implications of these new media. Instead, policies underlined the importance of maintaining the same standards of communication as when relying upon traditional media: *"Be authentic. Be honest about your identity. In personal posts, you may identify yourself as a DePaul faculty or staff member. However, please be clear that you are sharing your views as a member of the higher education community, not as a formal representative of DePaul. This parallels media relations practices at DePaul." (DePaul University).* In rare cases where the policy addressed specific characteristics of social media (e.g. their inherently interactive nature), the editorial recommendation was still to maintain the same level of professionalism expected in more traditional contexts as illustrated in the following guideline: *"It's a conversation. Talk to your readers like you would talk to real people in professional situations. In other words, avoid overly pedantic or "composed" language." (Intel)*

Second, faced with the simultaneous need to make sense of and respond to (i.e., influence the assimilation) the new applications, organizational decision makers rushed into addressing the most glaring and potentially destructive risks they considered it brought about. Again, the identification of these risks was conditioned by the existing pertinent social representations held by the policy makers. In the case of social media, two such risks seemed to exist - one was familiar to the policy makers while the other was relatively unfamiliar. The familiar risk was that of misrepresentation and/or misguided disclosure of information. In that regard, organizations provided detailed guidance to employees on what could and could not become public through social media channels. Organizations seemed to make little adjustment in this area to adapt the existing rules and regulations to the new environment, as exemplified in the following quote from the Mayo Clinic: *"Follow all applicable Mayo Clinic policies. For*

---

[1] Due to space limitations, we do not present a detailed discussion of the core-periphery analysis. Our approach was equivalent to that of Pawlowski et al. 2007. Please, refer to this paper for a step-by-step explanation of the method.

example, you must not share confidential or proprietary information about Mayo Clinic and you must maintain patient privacy."

The prevalence of this type of recommendation in many policies of our sample reveals that organizational policy makers, confronted with the rise of social media, made sense of it by linking it to what they already knew (i.e. company-related information publication) and, therefore, by also equating the risk of what they commonly knew with the risk represented by the new phenomenon. They then offered a response to this commonly understood risk by providing guidelines that were already in use in the domain of reference: *"You are required to (…) disclose only publicly available information. You must not comment on or disclose confidential Telstra information (such as financial information, future business performance, business plans, imminent departure of key executives). If you require clarification about what Telstra information is in the public domain, you should refer to material such as telstra.com, nowwearetalking.com.au and Telstra's annual report. (Telstra)*

Codes	Definitions	Examples
	Table 1: Codes Definitions and Examples	
APP-social media tool description	Definition and description of available social media applications covered by the policy.	Just as email and static websites were new communication venues in the previous decade, Social Media today refers to venues such as Blogs, Video/Photo posting sites, social networks, forums and online customer support chat sites. (*State of Delaware*)
BPP-Blurring of personal/professional boundary	Guidelines for employees' to deal with blurred distinction between personal and professional realm in social media	Regardless of how careful you are in trying to keep them separate, in your online activity, your professional life and your personal life overlap. (*NPR*)
CNR1-Content-related recommendations	Advice related to content of contributions to social media (what to talk about).	While staff should be receptive to ideas and comments provided online by stakeholders, they themselves should avoid any statement that could be perceived as advocating or criticising Government policies. (*Australian Government*)
CNR2-Post what you know	Recommendation of participating according to expertise.	Be informative and interesting. Contribute your thoughts, experiences, observations, and opinions regarding issues you know and care about, but make sure to check your facts and figures. (*SAP*)
COM-Foster community	Encouragement to generate and sustain sense of community.	We will also encour-age the voices of own-ers of per-sonal social media sites to enhance mes-sages and actions being pro-moted by Bread. When-ever pos-si-ble, we will solicit ideas and sto-ries from our con-stituents to help enhance our mes-sages and tac-tics. We will change our cam-paign tac-tics and mes-sages if needed. (*Bread for the world*)
EDR1-Editorial style recommendations	Editorial advice (how to talk about things when using social media).	Respect your audience. Don't use ethnic slurs, personal insults, obscenity, or engage in any conduct that would not be acceptable in IBM's workplace. (*IBM*)
EDR2-Identify yourself	Request for personal identification and transparency with regard to organizational affiliation.	Be transparent. If you participate in or maintain a social media site on behalf of the university, clearly state your role and goals. (*DePaul University*)
EDR3-Maintain professional image	Request for professionalism in participation to social media.	Simply carry the professionalism norms and standards of any SAP office onto the social computing platforms. (*SAP*)
EMP-Employee implications	Discussions of individual prerogatives and consequences for	You are personally responsible for the content of your posts online. In this context, you have a responsibility to ensure that… (*Telstra*)

	employees using social media.	
MDI- Misrepresentation & disclosure of information	Advice regarding what information can / should be made public and how to deal with misleading information.	You must make sure you do not disclose or use Kaiser Permanente confidential or proprietary information or that of any other person or company on any blog. (*Kaiser Permanente*)
OSP1- Organization sees value in social media	Expression of organizational interest in social media for value creation.	We will adopt only those tools and plat-forms that will help us advance our mis-sion, and not because they are trendy or cool. (*Bread for the world*)
OSP2-Organizational support of social media	Description of organizational support provided for social media purposes.	Mayo Clinic's Social Media Team provides oversight and assistance to guide development of new social media platforms, sharing knowledge and instituting best practices for successful implementation. (*Mayo Clinic*)
OSP3-Skills & training for social media	Description of needed skills and offered training to help employees participate in social media.	Additionally, the GIC [Government Information Center] will provide, as needed, training on best practices to ensure professional use of this medium by state organizations. (*State of Delaware*).
REF1-Enforcement and disciplinary action	Discussion of consequences of non-compliance to the policy.	CC [Cleveland Clinic] reserves the right to monitor, prohibit, restrict, block, suspend, terminate, delete, or discontinue your access to any Social Media Site, at any time, without notice and for any reason and in its sole discretion. (*Cleveland Clinic*)
REF2-Follow established (generic) rules	Social media policy refers to pre-established rules and regulations.	The purpose of this policy is to assure communications in online communities made on behalf of Sutter Health or its affiliates are consistent with the organizations' *Employee Handbooks* and *Standards for Business Conduct,* policies and applicable laws, including laws concerning privacy, confidentiality, copyright and trademarks. (*Sutter Health*)
REF3-If uncertain, ask authority	Employees to refer to authority of management or dedicated social media entity.	If you have any doubts, take advice from your line manager. (*UK Civil Service*)
REF4-Management approval of social media initiatives	Request for management's or designated authority's approval of social media.	All City of Hampton social media sites shall be (1) approved by the Director of Information Technology and the requesting Department Head; (2) published using approved City social networking platform and tools; and (3) administered by the Department of Information Technology Web Team or their designee. (*City of Hampton VA*)
VAU-Add value to the audience	Participation to social media should contribute value to audience.	Are you adding value? There are millions of words out there. The best way to get yours read is to write things that people will value. Social communication from Intel should help our customers, partners, and co-workers. (*Intel*)

VOR-Add value to the organization	Participation to social media should contribute value to organization.	The Corps of Engineers is making important contributions to the world and social media is providing a forum to reach new audiences and educate them on those contributions. Your comments will give the public an inside look at the Corps' work. (*US Army Corps of Engineers*)

Table 2: The core-periphery structure of the social representation of social media use in the enterprise*			
Attribute	Coreness	Sum Similarity	Salience
EDR2	0.319	9.82	0.09
BPP	0.311	9.77	0.07
MDI	0.311	9.64	0.10
EDR1	0.307	9.51	0.09
REF2	0.304	9.56	0.08
EMP	0.302	9.28	0.09
REF3	0.266	8.50	0.06
CNR1	0.257	8.23	0.06
APP	0.233	7.49	0.05
REF1	0.217	7.00	0.05
VOR	0.206	7.10	0.04
REF4	0.18	6.21	0.03
VAU	0.169	5.77	0.04
OSP1	0.147	4.94	0.05
OSP3	0.145	5.30	0.02
EDR3	0.135	4.65	0.03
OSP2	0.111	4.16	0.02
COM	0.094	3.54	0.02
CNR2	0.066	2.49	0.01

* core elements are highlighted in grey

The unfamiliar risk that organizations sensed but had a difficult time grasping fully had to do with the potential lack of control over the organizational image triggered by individual employees' use of social media in instances that were partly, but not entirely, related to their work context. The newly sensed danger was that of confusion between organizational and individual images, as illustrated in the following statement: *"Perception is reality. In online social networks, the lines between public and private, personal and professional are blurred. Just by identifying yourself as an Intel employee, you are creating perceptions about your expertise and about Intel by our shareholders, customers, and the general public-and perceptions about you by your colleagues and managers."* (Intel).

Organizations incorporated specific responses to this original risk into their policy: *"You should avoid any comment that might be interpreted as an official statement on behalf of your agency or that might compromise perceptions of your ability to do your job in an unbiased and professional manner. You should also be careful about posting comment or material that might bring the APS [Australian Public Service] into disrepute."* (Australian Government) As the previous quote illustrates, most responses to this risk, which fell under the "*Identify Yourself*" and "*Blurring of Personal and Professional*" codes, revolved around two main issues: (1) the need to provide a disclosure that the posted content reflected only a personal opinion and did not represent an official view of the organization, or (2) the need to make sure the use of social media did not interfere with primary job responsibilities. Clearly, these issues had been known to corporate public relations and human resources managers long before the arrival of social media in the enterprise. Thus, these responses once again revealed the prevalence of anchoring over objectification in the development of social media-related social representations, whereby organizational decision makers attempted to address unfamiliar risks with familiar means, as illustrated in the following rule: *"Individuals should ask their managers and/or refer to the Sutter Health and affiliates' Employee Handbooks and Standards for Business Conduct if they have any questions about what is appropriate to include in Web-based communications."* (Sutter Health)

The remaining elements of the core of the social representation therefore also revealed the presence of the anchoring pattern. Faced with uncertainty and the lack of understanding of the phenomenon, policy makers tended to enter the

"damage-control" mode wherein their primary focus was on mitigating all potential risks that the new environments might bring about. As they failed to make full sense of the new media, organizational decision makers developed responses that aimed at limiting all threats their use might generate. Their risk-mitigating responses directly borrowed from established policies and formal ways of dealing with problems in the organization, as illustrated in such core elements of the social representation as "*Follow Established Rules*", "*If Uncertain, Ask Authority*", and "*Enforcement and Disciplinary Action*". The following rule exemplifies this pattern: *"As is the case with all of Telstra's company policies, if you do not comply with this Policy you may face disciplinary action under Telstra's Performance Improvement and Conduct Management (PICM) process. This disciplinary action may involve a verbal or written warning or, in serious cases, termination of your employment or engagement with Telstra." (Telstra)*

Peripheral Elements of the Social Representation

A key distinguishing feature of the web 2.0 environment is that it has made possible for users to generate online content (O'Reilly 2007; Scoble and Israel 2006; Tapscott and Williams 2006). This effectively has changed the nature of online interaction from "broadcast-driven", wherein publishers would produce content that will then be consumed by users, to "conversational", wherein multiple parties can contribute discourse or, in other words, join the conversation (Jaffe 2007; Li 2008). Interestingly, however, the conversational nature of web 2.0 was hardly at the forefront of organizational social media policies that we analyzed. The codes that most directly related to this conversational nature of social media were "*Foster community*" and "*Add value to the audience*". In both of these codes, emphasis was placed onto the notion of employees' engaging in a conversation with others. Instances of these codes remained uncommon, though. One such example could be found in the SAP policy: *"Read the contributions of others. Know what the current conversations are and what people are saying in order to see if, and how, you may be able to contribute a new perspective. Participation is the fuel of social computing." (SAP)*

These two codes, which seemed most directly related to an understanding of the specificity and originality of social media, therefore remained at the periphery of the social representation. The peripheral status of these elements suggested that organizational decision makers had not yet "objectified" social media. Similarly, other codes related to the perception of a potential value of social media for the organization (i.e. "*Add value to the organization*", "*Organization sees value in social media*") or that expressed official organizational support for the use of social media (i.e. "*Skills & Training for social media*", "*Organizational support of Social media*") remained at the periphery of the representation. Quotes such as the following one remained rare: *"As NPR grows to serve the audience well beyond the radio, social media is becoming an increasingly important aspect of our interaction and our transparency with our audience and with a variety of communities. Properly used, social networking sites can also be very valuable newsgathering and reporting tools and can speed research and extend a reporter's contacts, and we encourage our journalists to take advantage of them." (NPR).*

Overall, then, what these peripheral elements revealed was that, before organizational decision makers had had a chance to develop a new, concrete, sense of social media, they had already devised policies to deal with them not in specific terms but, rather, in terms that were familiar with regard to better known communication environments.

Implications

In this research, we set out to explore how organizations come to comprehend and respond to end-user driven technologies. To this end, we have adopted a methodological approach based on social representations theory and analyzed 25 social media policies from a wide range of organizations. Our assumption was that policies in this context fulfill a dual role. On the one hand, they reflect nascent social representations of the technology in question held by organizational decision makers, while on the other, their ultimate goal is to influence action, or more specifically to shape how the technology is being assimilated by end-users. By focusing on these two aspects of social media policies we were able to address both parts of our research question: organizational comprehension of and organizational response to end-user driven technologies.

With regard to how organizations come to comprehend, or make sense of, new end-user driven technologies, our main finding suggests that the process of anchoring dominates that of objectification. Anchoring concerns the integration of the new phenomenon into existing knowledge and, as pointed out above, is oriented towards remaining in the existing state (Markova 2000: 448). Our analysis has shown that the vast majority of organizations in our sample drew upon established and well-understood corporate communications and human resources practices and concepts in order to craft their social media policies. Their attempts to develop a more nuanced understanding of

the social media environment, or in other words to create new meaning and foster change through objectification (Markova 2000: 448), were minimal as illustrated by the peripheral status of the corresponding codes.

It is also helpful to conjecture why anchoring dominates objectification in end-user driven technology adoption. Forming new meaning takes time and, under normal conditions, relies on organizational decision makers' efforts to learn from the broader community discourse about the innovation ("learning about"), as well as to gain first-hand experience with the technology during its adoption and implementation phases ("learning by doing") (Strang and Macy 2001; Wang and Ramiller 2009). In the context of end-user driven adoption, however, the time frame available to organizational decision makers to carry out either one of these processes is significantly shortened. For one, firms don't have the luxury of being able to substantively engage with the organizing vision of the innovation and to develop a situated rationale for its organizational application before making the adoption decision (Swanson and Ramiller, 2004). Therefore, even though an organizing vision of social media that emphasizes the new technologies as inherently interactive has been emerging in the wider society (Swanson and Ramiller 1997), as exemplified and expressed through widely received discourses from well-known sources (Anderson 2004; O'Reilly 2007; Scoble and Israel 2006; Tapscott and Williams 2006), organizational decision makers have not yet integrated this interactive dimension onto their emerging sense-making of social media.

The peripheral elements of the social representations we identified provide evidence that, while organizational decision makers have been the recipients of some of this dominant societal discourse on web 2.0, they have not yet engaged in a reflection that would help them consider the connection between the organizing vision of web 2.0 and the actual practices of their organization. Furthermore, with end-user driven innovation decision makers have often been deprived of the learning-by-doing opportunity, as adoption and implementation of the innovation effectively circumvent established structures and processes (e.g. the IT function). In this context, end-users are the sources of this learning-by-doing and managers only have indirect access to it. They therefore lack the understanding of how the new technologies can benefit and transform positively their organization. They then relate these new technologies to some pre-existing categories and concepts (e.g. of traditional communication policies) that they hold better comprehension of and control over. As a result, when faced with the de-facto adoption of a new, end-user driven, technology, organizational-decision makers feel rushed to "anchor" the innovation to pre-existing categories or concepts and offer a response consistent with their representation of that category or concept.

With regard to the second part of our research question - how organizations respond to end-user driven technologies - our analysis suggests that in this context organizations tend to focus on risk management at the expense of value creation. As described above, a significant portion of the core elements of the social representation were aimed at mitigating known and unknown risks of the social media use in the enterprise. In comparison, the issue of how social media use could be leveraged to generate value for the organization received significantly less attention in the organizational policies, as evident from the peripheral status of the corresponding social representation element.

This finding, we believe, is consistent with our earlier observation that anchoring dominates objectification in the organizational decision makers' effort to make sense of the innovation. As their understanding of consequences of the new technology in the organizational setting remains anchored in pre-existing social categories and practices and as the creation of a new meaning for the innovation continues to lag behind, the decision makers struggle to envision and communicate how the use of the innovation could generate value. Instead, giving in to uncertainty and the perceived lack of control, they seek to conceive an all-encompassing risk management system that would protect the organization from any risk the innovation may engender.

We also would like to point out the connection between our findings and the concept of mindfulness in innovating with IT (Fiol and O'Connor 2003; Swanson and Ramiller 2004; Weick 1995; Weick et al. 1999). The patterns of organizational comprehension and action that we identified and described above suggest that in the context of end-user driven adoption organizations tend to approach their innovating with IT in a fairly mindless manner. Here are a few illustrations. Mindful organizations are committed to resilience (i.e., favor adaptation over routine) and recognize that "it is impossible to identify and develop contingency plans for every possibility" (Swanson and Ramiller, 2004: 561). Our analysis, however, has shown that organizations in the sample attempted to incorporate in their policies a complex web of generic rules and regulations aimed at addressing all known and unknown social media risks. Similarly, mindful organizations are willing to relax formal structure and transfer the authority to stakeholders with the most subject matter expertise. Again, in our case we have observed that organizations relied primarily on formal authority (e.g., "If uncertain, ask authority", "Follow established (generic) rules") at the expense of trusting and empowering their current end-users, who were likely to have much deeper situated knowledge about the social media environment. Finally, mindful organizations are reluctant to simplify interpretations and "resists the temptation to settle into simplified and reproducible heuristics" (p. 560). The dominance of anchoring over objectification, wherein organizations fell back on what they knew best to respond to the new environment instead

of entertaining novel perspectives and seeking to construct new meaning, clearly falls on the other side of the spectrum.

Concluding remarks

In this research, we have examined how organizational decision makers come to comprehend and respond to end-user driven technologies, i.e. those applications of IT whose implementation and adoption in the enterprise traditional organizational decision makers have limited control over. Our findings posited that end-user driven technologies disrupt the traditional sequence of innovation in the organization and, therefore, generate challenges for decision makers' sense-making and action. Social representations theory offered a framework through which to examine how organizational decision makers come to develop a common-sense understanding of end-user driven innovations. Theoretically, this understanding can be based on anchoring (through which the innovation is understood in relation to what is already known, with no adjustment of the framing) and / or on objectification (through which a new social representation emerges that helps understand the innovation in its own terms). From a social representations perspective, the policies put forth by the decision makers are both a reflection of their prevalent social representations as well as a vehicle of their spreading to other groups such as end-users. This paper then examined a sample of existing organizational social media policies in order to identify and analyze organizational decision makers' most common representations and responses to social media. Our findings revealed a dominance of anchoring over objectification processes and underscored that organizational decision makers, short of comprehending fully what social media were and how they could be used in the organizational context, relied upon what was already familiar to them to make sense of social media and to devise responses to them. We interpreted this main finding by relating it to concepts of mindless and mindful IT innovation. In particular, we argue that when it comes to end-user driven technologies that drastically challenge the traditional innovation process in the organization, organizational decision makers tend to develop a fairly "mindless" response to these technologies.

This paper suffers from several limitations that need to be acknowledged. For one, we exclusively investigated social media policies as a way to examine how organizational decision makers make sense of social media and respond to end-user initiatives. We conceptualized policies as reflecting the espoused understanding that decision makers have developed and presented as the official reaction of the organization to the innovation. By investigating social media policies, we purposely stayed away from the investigation of organizational decision makers' deep opinions or attitudes toward end-user driven innovation. It could be useful to complement the present research by examining such opinions and attitudes through the adoption of alternative methods of data collection such as in-depth semi-directed interviews. Moreover, our sample included a relatively diverse set of organizations from various industries, but was limited in size (25 organizations). A larger data set would be helpful to determine whether our main findings hold among a broader set of organizations, or whether sub-sets of organizations will vary with regard to their decision makers' representations and responses to social media. With a larger data set we will also be able to not only analyze the core-periphery structure of the social representation, but also to examine the relationships among its individual elements.

Given the rising importance of cloud computing, end-user driven adoption of new technologies in the organization will only accelerate. Accordingly, organizations will have to adjust governance structures and processes associated with the deployment of new technologies and adapt to the new sequence of innovation. Our research will help organizational decision makers become aware of the defensive mechanisms they, willingly or not, mobilize when developing an understanding and response to end-user driven technologies. They could then learn to comprehend these technologies on their own terms and to generate responses to end-users' initiatives in a more mindful manner.

Appendix 1

Table 3: Sampled Corporate Social Media Policies			
Organization	**Industry**	**Policy title**	**Enactment date (when available)**
Australian Government	Government	Interim protocols for online media participation	08/2008
Baker & Daniels	Legal services	Social Media Policy	n/a
Bread for the World	Non-profit	Online Technologies, Social Media, and Bread	10/2009
City of Hampton, VA	Government	Information Technology Policy Policy No.: 09-002	08/2009
Cleveland Clinic	Healthcare	Social media policy	n/a
Coca-Cola	Consumer goods	Online Social Media Principles	n/a
Dell	Information Technology	Dell Online Communication Policy	n/a
DePaul University	Education	DePaul University Social Media Policy	n/a
Headset Brothers	E-tail	Social Media Policy	n/a
Gartner	Consulting	Public Web Participation Guidelines	n/a
Greteman Group	Consulting	Social Media Policy	01/2009
IBM	Information Technology	IBM Social Computing Guidelines	n/a
Intel	Information Technology	Intel Social Media Guidelines	03/2010
Kaiser Permanente	Health Insurance	Kaiser Permanente social media policy	04/2009
Mayo Clinic	Healthcare	Mayo Clinic Social Media Policy	n/a
NPR	Media	NPR News Social Media Guidelines	10/2009
SAP	Information Technology	SAP Social Media Participation Guidelines	06/2009
Sentara	Healthcare	Social Media Policy	n/a
State of Delaware	Government	Social Media Policy "Enabling Excellence In Delaware State Government"	04/2009

Sutter Health	Healthcare	Policy for social networking and other web-based communications	08/2009
Telstra	Telecommunications	Telstra's 3 Rs of Social Media Engagement	04/2009
UK Civil Service	Government	Principles for participation online	01/2009
Unic	Information Technology	Social Media Guidelines or the resurgence of Netiquette	10/2009
US Army Corps of Engineers, Jacksonville District	Government	U.S. Army Corps of Engineers Jacksonville District Social Media User Guidelines	n/a
Washington Post	Media	Newsroom Guidelines for Use of Facebook, Twitter and Other Online Social Networks	09/2009

References

Abric, J.C. "Les représentations sociales : aspects théoriques," in: *Pratiques sociales et représentations,* J.C. Abric (ed.), Presses Universitaires de France, Paris, 1994, pp. 11 - 35.

Abric, J.C. "Specific processes of social representations," *Papers on social representations* (5:1) 1996, pp 77-80.

Anderson, C. *The long tail: Why the future of business is selling less of more* Hyperion, 2004, p. 256.

Argyris, C., and Schon, D. *Organizational learning : a theory of action perspective* Addisson - Wesley, 1978.

Argyris, C., and Schön, D.A. *Theory in practice : Increasing professional effectiveness* Jossey-Bass Publishers, San Francisco, 1974, p. 224.

Armbrust, M., Fox, A., Griffith, R., Joseph, A.D., Katz, R., Konwinsky, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., and Zaharia, M. "A view of cloud computing," *Communications of the ACM* (53:4), April 2010, pp 50-58.

Badaracco, C.H. "The transparent corporation and organized community," *Public Relations Review* (24:3), Autumn 1998, pp 265-272.

Basselier, G., Reich, B.H., and Benbazat, I. "Information Technology competence of business managers: A definition and research model," *Journal of Management Information Systems* (17:4) 2001, pp 159-182.

Billig, M. "Studying the thinking society: social representations, rhetoric, and attitudes," in: *Empirical approaches to social representations,* G.M. Breakwell and D.V. Canter (eds.), Oxford University Press, Oxford, 1993, pp. 39-62.

Bonabeau, E. "Decisions 2.0: The power of collective intelligence," *MIT Sloan Management Review* (50:2), Winter 2009, pp 45-52.

Boudreau, M.C., and Robey, D. "Enacted integrated information technology: A human agency perspective," *Organization Science* (16:1), Jan-Feb 2005, pp 3-18.

Breakwell, G.M., and Canter, D.V. (eds.) *Empirical approaches to social representations*. Oxford University Press, Oxford, 1993.

Castro, P., and Batel, S. "Social representation, change and resistance: On the difficulties of generalizing new norms," *Culture & Psychology* (14:4) 2008, pp 475-497.

Castro, P., and Gomes, I. "Genetically modified organisms in the press: thematization and anchoring," *Journal for the Theory of Social Behavior* (35:1) 2005, pp 1-17.

Ciborra, C.U. (ed.) *From control to drift: The dynamics of corporate information infrastructures*. Oxford University Press, Oxford, 2000.

Cisco "Social media: Cultivate collaboration and innovation," May 2010, http://www.cisco.com/en/US/services/ps2961/ps2664/CiscoServicesSocialMediaWhitePaper.pdf, last accessed Sep. 8th, 2010.

Contarello, A., and Sarrica, M. "ICTs, social thinking and subjective well-being - The Internet and its representations in everyday life," *Computers in Human Behavior* (23) 2007, pp 1016-1032.

Cooper, R.B., and Zmud, R.W. "Information Technology implementation: A technological diffusion approach," *Management Science* (36:2), Feb. 1990, pp 123-139.

Dodds, A.E., Lawrence, J.A., and Valsiner, J. "The personal and the social: Mead's theory of the 'Generalized other'," *Theory & Psychology* (7) 1997, pp 483-503.

Doise, W. "Debating social representations," in: *Empirical approaches to social representations,* G.M. Breakwell and D.V. Canter (eds.), Oxford University Press, Oxford, 1993, pp. 157-170.

Doise, W., Clemence, A., and Lorenzi-Cioldi, F. *The quantitative analysis of social representations* Harverster Wheatshaf, New York, 1993, p. 170.

Farr, R. "Theory and method in the study of social representations," in: *Empirical approaches to social representations,* G.M. Breakwell and D.V. Canter (eds.), Oxford University Press, Oxford, 1993, pp. 15-38.

Farr, R., and Moscovici, S. *Social representations* Cambridge University Press, Cambridge, England, 1984.

Fichman, R.G. "Information technology diffusion: A review of empirical research," Thirteenth International Conference on Information Systems, Dallas, TX, 1992.

Fiol, M.C., and O'Connor, E.J. "Waking up! Mindfulness in the face of bandwagons," *Academy of Management Review* (28:1) 2003, pp 54-70.

Flament, C. "Pratiques sociales et dynamiques des représentations," in: *Pratiques sociales et représentations,* J.C. Abric (ed.), Presses Universitaires de France, Paris, 1994, pp. 43 - 58.

Gal, U., and Berente, N. "A social representations perspective on information systems implementation: Rethinking the concept of "frames"," *Information Technology & People* (21:2) 2008, pp 133-154.

Gallivan, M. "Organizational adoption and assimilation of complex technological innovations: Development and application of a new framework," *Data Base* (32:3) 2001, pp 51-85.

Gartner group "How to govern social media," February 2010, http://www.gartner.com/it/products/podcasting/asset_246611_2575.jsp, last accessed Sep. 8th, 2010.

Gillin, P. *The new influencers: A marketer's guide to the new social media* Linden Publishing, 2009, p. 236.

Ginges, J., and Cairns, D. "Social representations of multiculturalism: A faceted analysis," *Journal of Applied Social Psychology* (30:7) 2000, pp 1345-1370.

Harrison, T.M., and Barthel, B. "Wielding new media in Web 2.0: exploring the history of engagement with the construction of media products," *New media & society* (11:1-2), February - March 2009, pp 155-178.

Jaffe, J. *Join the conversation: How to engage marketing-weary consumers with the power of community, dialogue, and partnership* Wiley, 2007, p. 320.

Jodelet, D. (ed.) *Les représentations sociales*. PUF, Paris, 1989.

Johnson, M., and Gelb, B. "Cyber-libel: policy trade-offs," *Journal of public policy & marketing* (21:1), Spring 2002, pp 152-159.

Jung, Y., Pawlowski, S.D., and Wiley-Patton, S. "Conducting social cognition research in IS: A methodology for eliciting and analyzing social representations," *Communications of the Association for Information Systems*) 2009, pp 24-35.

Kane, G.C., Fichman, R.G., Gallaugher, J., and Glaser, J. "Community relations 2.0," *Harvard Business Review*), Nov. 2009, pp 45-50.

Komito, L., and Bates, J. "Virtually local: Social media and community among Polish nationals in Dublin," *ASLIB Proceedings* (61:3) 2009, pp 232-244.

Li, C. *Groundswell: Winning in a world transformed by social technologies* Harvard Business School Press, Harvard, 2008, p. 224.

Liu, L. "Sensitizing concept, themata and shareness: A dialogical perspective of social representations," *Journal for the Theory of Social behaviour* (34:3) 2004, pp 249-264.

Markova, I. "Toward an epistemology of social representations," *Journal for the Theory of Social behaviour* (2:2) 1996, pp 177-196.

Markova, I. "Amedee or how to get rif of it: Social representations from a dialogical perspective," *Culture and psychology* (6:4) 2000, pp 419-460.

Markova, I., E., M., and Plichtova, J. "Democracy as social representations perspective," in: *Social representations and communicative processes,* M. Chaib and B. Orfali (eds.), Jonkoping University Press, Jonkoping, 2000, pp. 157-177.

Markova, I., Moodie, F., and Plichtova, J. "The social representations of democracy: Stability and change in word meanings," in: *Social representations and contemporary social problems,* A.-V. Rigas (ed.), Ellinika Grammata Publ., Athens, 1998, pp. 155-177.

Merand, F. "Social representations in the European Security and Defense Policy," *Cooperation and Conflict* (41:2) 2006, pp 131-152.

Moscovici, S. *La psychanalyse : Son image et son public* PUF, Paris, 1961.

Moscovici, S. "Attitudes and opinions," *Annual review of Psychology* (14) 1963, pp 231-260.

Moscovici, S. "Foreword," in: *Health and illness: A social psychology perspective,* C. Herzlich (ed.), Academic Press, London, 1973.

Moscovici, S. *Psychologie des minorites actives* PUF, Paris, 1979, p. 275.

Moscovici, S. "The phenomenom of social representations," in: *Social representations,* R.M. Farr and S. Moscovici (eds.), Cambridge University Press, Editions de la Maison des Sciences de l'Homme, Cambridge & Paris, 1984, pp. 3-69.

Moscovici, S. *Social representations : explorations in social psychology* New York University Press, New York, 2001a, pp. viii, 313 p.

Moscovici, S. "Why a theory of social representations?," in: *Representations of the Social,* K. Deaux and G. Philogene (eds.), Blackwell Publishing, Oxford, 2001b, pp. 14-17.

Moscovici, S., and Markova, I. "Presenting social representations: A conversation," *Culture and psychology* (4:3) 1998, pp 371-410.

Murugesan, S. "Understanding Web 2.0," *IT Professional*), July - August 2007, pp 34-41.

Nicolini, D. "Comparing methods for mapping organizational cognition," *Organization studies* (20:5) 1999, pp 833-860.

O'Reilly, T. "What is web 2.0: Design patterns and business models for the next generation of software," *Communications & Strategies*:1), First quarter 2007, p 17.

Palo Alto Networks "The application usage and risk report - An analysis of end user application trends in the enterprise," Palo Alto, CA, p. 19.

Pawlowski, S.D., Kaganer, E.A., and Cater III, J.J. "Focusing the research agenda on burnout in IT: Social representations of burnout in the profession," *European Journal of Information Systems* (16:5), Oct. 2007, pp 612-627.

Pawlowski, S.D., Kaganer, E.A., and Cater, J.J. "Mapping perceptions of burnout in the Information Technology profession: A study using social representations theory," Twenty-fifth International Conference on Information Systems, Washington, D.C., 2004, pp. 901-913.

Piskorki, M.J., and McCall, T. "Mapping the social Internet," *Harvard Business Review* (88:7/8), July - August 2010, pp 32-34.

Rogers, E.M. *Diffusion of innovations*, (5th ed.) Free Press, New York, NY, 2003, p. 551.

Rolland, K.H., and Monteiro, E. "Balancing the local and the global in infrastructural information systems," *The Information Society* (18) 2002, pp 87-100.

Safko, L., and Brake, D.K. *The social media bible: tactics, tools, and strategies for business success* Wiley, 2009, p. 840.

Sambamurthy, V., and Zmud, R.W. "Arrangement for Information Technology governance: A theory of multiple coningencies," *MIS Quarterly* (23:2), June 1999, pp 261-290.

Sambamurthy, V., and Zmud, R.W. "Research commentary: The organizing logic for an enterprise's IT activities in the digital era -- A prognosis of practice and call for research," *Information Systems Research* (11:2), June 2000, pp 105-114.

Scoble, R., and Israel, S. *Naked conversations: Blogs are changing the way businessess talk with customers* Wiley, 2006.

Shirky, C. *Here comes everybody. The power of organizing without organizations*, (2nd ed.) Penguin, 2009, p. 352.

Sonnenfeld, S. "Media policy - What media policy?," *Harvard Business Review* (72:4), July-August 1994, pp 18-19.

Sprague, R.H. "Electronic document management: Challenges and opportunities for Information Systems managers," *MIS Quarterly* (19:2), March 1995, pp 29-49.

Stolley, K. "Integrating social media into existing work environments - The case of delicious," *Journal of Business and Technical Communication* (23:3), July 2009, pp 350-371.

Strang, D., and Macy, M.W. "In search of excellence: fads, success stories, and adaptive emulation," *American Journal of Sociology* (107:1), July 2001, pp 147-182.

Swanson, E.B. "Information Systems innovation among organizations," *Management Science* (40:9) 1994, pp 1069-1092.

Swanson, E.B., and Ramiller, N.C. "The organizing vision in information systems innovation," *Organization Science* (8:5) 1997, pp 458 - 474.

Swanson, E.B., and Ramiller, N.C. "Innovating mindfully with Information Technology," *MIS Quarterly* (28:4), Dec 2004, pp 553-583.

Tapscott, D., and Williams, A. *Wikinomics: How mass collaboration changes everything* Portfolio hardcover, 2006.

Vaast, E. "Danger is in the eye of the beholders: Social representations of Information Systems security in healthcare," *Journal of Strategic Information Systems*:forthcoming) 2007.

Vaast, E. "The spread of new technology practices in a network of practice: Social media among non-profit professionals," in: *Academy of Management Conference*, Montreal, Canada, 2010.

Vaast, E., Boland, R.J., Davidson, E., Pawlowski, S.D., and Schultze, U. "Investigating the "Knowledge" in Knowledge Management: A social representations perspective," *Communications of the Association for the Information Systems* (17:article 15), Feb. 2006, pp 314-340.

Valsiner, J. "Beyond representations: A theory of enablement," *Papers on social representations* (12:7) 2003, pp 1-16.

Voelklein, C., and Howarth, C. "A review of controversies about social representations theory: A British debate," *Culture & Psychology* (11:4) 2005, pp 431-454.

Wagner, W., Duveen, G., Farr, R., Jovchelovitch, S., Lorenzi-Cioldi, F., Markova, I., and Rose, D. "Theory and method of social representations," *Asian journal of social psychology* (2:1), Apr 1999, pp 95-125.

Wang, P., and Ramiller, N.C. "Community learning in Information Technology innovation," *MIS Quarterly* (33:4), December 2009, pp 709-734.

Webster, J., and Trevino, L.K. "Rational and social theories as complementary explanations of communication media choices: Two policy-capturing studies," *Academy of Management Journal* (38:6), December 1995, pp 1544-1572.

Weick, K.E. Sensemaking in organizations Sage, Thousand Oaks, 1995.

Weick, K.E., Sutcliffe, K.M., and Obstfeld, D. "Organzing for high reliability: Processes of collective mindfulness," Research in organizational behavior (21) 1999, pp 81-123.