Association for Information Systems
AIS Electronic Library (AISeL)

All Sprouts Content

Sprouts

9-1-2010

Researching the Disruptive Nature of Open and Social Technologies: A Pragmatic Agenda

Mark Aakhus
Rutgers University, aakhus@rutgers.edu

PÃ¤r Ã…gerfalk
Uppsala University, par.agerfalk@im.uu.se

Mikael Lind
Viktoria Institute, Mikael.Lind@viktoria.se

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

Researching the Disruptive Nature of Open and Social Technologies: A Pragmatic Agenda

Mark Aakhus
Rutgers University, USA

Pär Ågerfalk
Uppsala University, Sweden

Mikael Lind
Viktoria Institute, Sweden

Abstract
N/A

Keywords: N/A

Permanent URL: http://sprouts.aisnet.org/9-67

芽|Sprouts

Proceedings of the Second Scientific Meeting of

AIS SIGPrag

15 December 2009, Phoenix, AZ, USA

In Conjunction with the
Thirtieth International Conference on Information Systems

Pär J. Ågerfalk, Mark Aakhus and Mikael Lind

SIGPrag
Association for Information Systems

Special Interest Group on Pragmatist IS Research

UPPSALA
UNIVERSITET

RUTGERS

UNIVERSITY COLLEGE
OF BORÅS

Sprouts

RESEARCHING THE DISRUPTIVE NATURE OF OPEN AND SOCIAL TECHNOLOGIES: A PRAGMATIC AGENDA

Mark Aakhus
Rutgers, The State University of
New Jersey
USA
aakhus@rutgers.edu

Pär J. Ägerfalk
Uppsala University
Sweden
par.agerfalk@im.uu.se

Mikael Lind
Viktoria Institute
Sweden
mikael.lind@viktoria.se

Researching the Disruptive Nature of Open and Social Technologies: A Pragmatic Agenda

1. Introduction

The organizational impact of open and social technologies (OSTs), such as open source software, Web 2.0, and peer-to-peer computing is rather fundamental. Not only is this evident in policy and law, such as the entertainment industry's struggle with illegal dissemination of copyrighted material and the launch of the IPRED law (the European Union's Intellectual Property Rights Enforcement Directive), but it seems each day reports reveal the struggle organizations are experiencing in adapting to the social media phenomenon. Organizational responses to OSTs appear that range from reactive to repressive to integrative, such as: a CEO responding to the fake video released on YouTube by pizza restaurant employees about pizza kitchen practices; attempts to ban the use of social media by fans attending college football games; or a CEO of major auto manufacturer learning to tweet to his twitter followers.

Perhaps not surprisingly it seems that organizations are hesitating whether to counteract OSTs and the changing behavior they bring or to embrace the new technology and create innovative business models around them. For example, in a recent article in Swedish newspaper Uppsala Nya Tidning (Fagerberg, 2009), Anna Sundblad, Group Press Manager at Swedbank, explains that "we want to be where our customers are and social media are meeting places where we know our customers are" in support of the company's decision to lift its ban on employee use of Facebook. On the contrary, "Facebook is fundamentally about staying in touch with friends and that is not part of work" said Niclas Härenstam, Head of Press Relations, SAS Sweden, in the same article. In any case, it is probably safe to assume that OSTs are here to stay and consequently that every organization should be prepared to face new challenges and opportunities whatever strategy they adopt. But this presupposes much about understanding the affect of OSTs on organizing and organizations.

In this paper, it is our aim to reframe the problem OSTs present in terms of theory of disruptive technologies and then to argue that pragmatics provides a theoretical basis for conceptualizing and researching what is disrupted by OSTs as disruptive technologies. Our overall goal is to contribute to focusing discourses related to managerial responses to OST. We believe that the level of understanding developed in relation to OSTs by managers differs widely. There is thus a call for complementing existing managerial practices in relation to the role of OSTs.

2. OSTs as Disruptive Technology

Internet, as a technology and medium for connecting people, has had profound consequences on organizations both on the internal relations among those carrying out the business of the organization and on the external relations between organizations and various stakeholders. The recent emergence of OSTs as "social software," such as Facebook and Twitter, generate further capacities for people to engage each other and thus accelerates the blurring and reconstitution of boundaries among organizational stakeholders within an organization and between organizations.

Here we sketch four scenarios that illustrate plausible ways that OSTs are affecting organizations:

The employees of an organization may expose identified challenges of the organization to others in order to let them contribute solutions in conducting business. This could take many different forms, ranging from ideas and strategies to software and system components. In this situation new business ideas might evolve in the information sharing processes of the (virtual) meeting between different people. This could be referred to as *internal-cross functional/cross-departmental collaboration.*

Participants in particular social settings, such as sports events, concert, judicial proceedings, that are otherwise closed off to others and expose the happenings of the event on the Internet (through YouTube, Twitter, etc.) with others who are not otherwise official participants. Such situations challenge the role of the organization who creates or sponsors the event such as sports teams and media companies that make profits from broadcasting such events. This could be referred to as *consumers become creators and distributors, or redistributors, of "protected" content.*

For the purpose of exploring new products or services, organizations may collaborate in a way that involves several organizations in the development and distribution phases of the process. This is often referred to as open innovation (Chesbrough, 2003) in which corporate clusters are open to members for participation intended to form open communities but that are otherwise closed to outsiders. This could be referred to as *heterogeneous actors arranging a collaborative space aimed towards some parties outside the organizational boundaries*.

Consumers may produce product reviews where different attitudes towards experiences in acquiring products and putting them into use are exposed to a broader public community. There are numerous sites around where consumers jointly evaluate different products on the market. There are also some examples where consumers are engaged in early phases of product development, for example, in designing new car models. This could be referred to as *external perspectives becoming internal to the decision-making*.

Each scenario involves a blurring or reconstitution of boundaries among stakeholders in a business process related to the presence of OSTs. Intuitively, there are at least two different responses organizations might make to the presence of OSTs in their environment of action. First, management may promote the use of open tools and participation in online communities. This may be referred to as a *management driven* approach. Second, stakeholders may promote the incorporation of OSTs into business practice. Employees in organizations, for instance, may start participating in online communities, or adopting different open source software products, without management approval or even awareness. Consumer groups may start their own online fora about the company and its products and services. These stakeholder initiatives may then lead organizations into *bottom-up* adoption unknowingly (at the managerial level) of OST and OST strategies. These two approaches are thus distinguished by the source of the incentive for using OSTs: management or *shop-floor/stakeholder initiative*. On another dimension it is possible to distinguish between the internal and external use of OSTs, see Table 1.

Table 1: OST adoption strategies.

	Management Driven	Stakeholder Driven
Internal use of OSTs	Management promotes (or prevents) the use of corporate wikis, blogs and Youtube-like software for internal communication.	Employees adopt various open source tools, such as databases, web servers and operating systems. Employees participate in forums for knowledge sharing with people outside own company.
External use of OSTs	Strategic use of virtual communities for commercial purposes (e.g. harvesting forums as input to product design, using OSTs to create additional sales channel).	Consumer or citizens groups create forums about the organization or its products and services.

But, such thinking presupposes what it is management and stakeholders are responding too. To understand better what it is that management is responding to in regard to OSTs, we argue that OSTs ought to be understood as a kind of disruptive information system innovation (Lyytinen and Rose, 2003a, 2003b). While any technology adoption has implications for the adopting organization far beyond the technology itself, disruptive innovations completely change the rules of the game by fostering often completely new ways of working accompanied by new sets of norms and social structures. Each scenario above alludes to such changes.

The emergence of OSTs in an organization is similar to previous disruptive innovations, yet different in some key areas. First, to most organizations OSTs as such do not form part of the core business as those organizations are not OST manufacturers. Rather, these technologies have evolved along with the development of service-based Internet infrastructures to become a threat or indispensable asset for companies to communicate and interact, internally and externally. Second, the impact of OSTs to an organization is not based on market demand. Rather, as pointed out by Lyytinen and Rose (2003a), disruptive IS innovations tend to be based on pull strategies rather than push. That is, they emerge from within the organization. Third, it seems that OSTs become disruptive as they are adopted through a boot-strapping approach which builds momentum primarily due to an increasing number of users of the specific OST rather than inherent features in the technology itself. Thus, they are "infrastructural innovations" (Lyytinen and Rose, 2003a) but with an emphasis on social momentum as a driver for disruption rather than a giant leap in underlying technology.

The emergent nature of the phenomenon allows for organizational culture and behavior to change gradually over time. Consequently, when disruption suddenly strikes, it may come as a complete

surprise to management. Aligning with Ågerfalk et al (2008) we refer to this evolutionary nature of the changing norms and behavior related to OST adoption as *evolutionary disruption.*

The literature on disruptive technologies (e.g. Bower and Christensen, 1995; Christensen, 1997; Danneels, 2004) emphasize the importance of external factors in technology adoption. Bower and Christensen (1995) explicitly draws attention to the risk of listening too much to customer needs as that may make a company stay away from a potentially disrupting technology and instead focusing on incremental improvements of already established alternatives, thus losing competitive advantage once the disruptive technology reaches the point where it becomes the new customer demand. Interestingly, while Christensen and Bower (1995) suggest that companies should not "listen too carefully to their customers", Danneels (2004) argue that customer orientation could be a way to "harness the power of disruptive technologies." The success of OSTs are founded on the establishment of a critical mass of people, alluding to the "wisdom of the crowd" slogan of Web 2.0. Thus, what we are dealing with in this paper, evolutionary disruption, may be seen as the logical next generation of disruptive technologies.

Whether it is top down or bottom up – what requires attention is just what it is that management is responding too. But, in addition to these differences between OST and previous disruptive technologies, we see that what is missing in explaining these responses to evolutionary disruption are matters of pragmatics. Each of the four examples points to some kind of change in patterns of interaction or accepted interactive routines within a business and/or among stakeholders and this, of course, entails disruption to given identities and relationships. The disruption draws attention to otherwise taken-for-granted matters of interaction by suggesting new possibilities for interaction and by exposing the needed assumptions that make communication possible to scrutiny that disrupts the given assumptions in the community about the relationship between communication process and products that result from the communication.

What is affected is participation in the business of the organization. In some ways this is not unlike shop-floor conflicts that gave rise to different movements about the organization of work such as the participative models that arose in Scandinavia. But the disruption of OST extends beyond the classic shop floor as it expands the network of stakeholders who participate in influencing the business of the organization. A variety of relations among stakeholders are subject to reconfiguration through uses of social media. Basic stakeholders in business conduct (investors, managers/employees, vendors/suppliers, consumers, and citizens) find themselves in new relationships or with the potential for new relationships and ways of relating (e.g., employee-employee, employee-mgmt, mgmt-investors, investors-citizens, mgmt-citizens, employee-consumers and so on). [Of course, further complexities arise as these stakeholder roles/identities could feasibly be located in one person as e.g. in the person who buys products from firm A, is an employee at firm A, holds stock in firm A, and lives in the community where firm A operates.] The social media create new possibilities for interaction. In so doing, these media invite struggles over how stakeholders ought to interact with each other. The models for how all these stakeholder should stand in relation to each other and interact (or not) that arose with the large hierarchical organizations of the 20th century are being challenged by this latest wave of the technologies that integrate computing/telecommunication networks.

What the four scenarios above hold in common is that in each case the OST is implicated in changes to routine ways of interacting among organizational members and with non-organizational members that upset tacit assumptions and normative expectations about interaction. We argue that the evolutionary disruption associated with OSTs is specific to the communicative norms -- both routine patterns and normative expectations -- constitutive of work and business conduct. As such these examples draw attention to how communicative norms become an object of scrutiny, explicit reasoning, and design (e.g., Aakhus, 2007; Aakhus & Jackson, 2005). Due to the fact that people are getting more powerful tools for gathering and disseminating knowledge and information and for organizing stakeholder action, the preceding scenarios raise questions about the future of managing companies as companies might even now be considered media companies: *How do organizations respond to OSTs in these settings*? *What do these responses reveal about the managerial understanding of the interaction social media facilitate?*

These more focused questions regarding OSTs and disruptive technology are part of a broader interest in the role of business in society and the evolution of modern organizations. Central to this story is control over work as evident in attempts to manage the basic interactions among people involved in work. While early theory and research focused on shop floor control (e.g., Taylorism) subsequent research began to emphasize the relationship between control and technology. Edwards (1979) classic analysis describes how forms of control over evolved from simple forms to technical to bureaucratic. The irony is that efforts to control local, internal conflict over work became externalized to more general levels of society. At the same time, development and evolution of internal corporate communication (e.g., newsletters, memos, meetings) ushered in through the rise of large bureaucratic forms of modern organization were also extensions of the evolving logics of control (e.g., Yates, 1989). Yet, large organizations unexpectedly generated vast arenas of tacit knowledge, informal networks of relations, and quasi-public spaces for discussion and deliberation about work and other matters (e.g., Sproule, 1989). Communication media played a role in the unfolding expectations and practices for communication in these changes. The Internet revolution was associated with great interest in the informal, emergent nature of organization and the prospect that new technologies for information and communication could leverage what formally designed, hierarchical processes could not. Indeed, formal organizations (e.g., corporations, public agencies) appear to be places where Web 2.0 tools hold significant promise for change and yet, unlike in social and market relations, the new media have largely been resisted by those in charge (Fraser & Dutta, 2008).

While these shifts and changes are typically attributed to control over work, we see that central to the evolution of the modern organization is an interest in disciplining interaction through technological design to achieve certain qualities of communication while technologies usher in new possibilities for interaction and qualities of communication. Thus, central to the evolution of organizational forms are questions of meaning, action, and coherence – the pragmatics of interaction – and the practices for their achievement.

In the remainder of this paper then we develop our perspective on disruptive technology and organizational change by articulating an agenda that uses pragmatics as both an ontology for making empirical observations about disruptive technology and a theoretical basis from which to explain

organizational change.

3. Conceptual Re-Framing of OSTs as Disruptive Technology

As claimed by several scholars the core in pragmatics is to investigate the action character of the empirical field in social studies. Blumer (1969 p 71) claims that "the essence of society lies in an ongoing process of action - not in a posited structure of relations. Without action, any structure of relations between people is meaningless. To be understood, a society must be seen and grasped in terms of the action that comprises it." The core category in pragmatism is thus action and indeed interaction.

The social world is created and recreated through human actions. Most actions are social (e.g. Mead, 1934; Blumer, 1969; Strauss, 1993). A social action is conceived as an action oriented towards other persons (Weber, 1978). The great sociologist Max Weber has made a classical definition of social action: "That action will be called social which in its meaning as intended by the actor or actors, takes account of the behaviour of others and is thereby oriented in its course" (Weber, 1978, p. 4). This definition means that a social action (performed by an actor) has social grounds ("takes account of the behaviour of others") and social purposes ("thereby oriented in its course") (Goldkuhl & Lind, 2008). As claimed by Mead (1934, p 6) "the behaviour of an individual can be understood only in terms of the whole social group of which he is member, since his individual acts are involved in larger social acts, which go beyond himself and which implicate the other members of the group."

It is thus essential to look both for social grounds and social purposes when studying actions. Social grounds are the past of the action. Social actions are thus interactive (Blumer, 1969; Strauss, 1993) where several inter-related actions constitute patterns of actions related to each other by initiatives and responses (Linell, 1998). One action can be both an initiative and a response (Linell, 1998). A human being intervenes in the world, by performing actions, in order to create some differences in their environment – to achieve ends (c.f. Dewey 1931; von Wright, 1971). An important distinction is made between the result and the effects of the action (von Wright, 1971). The phenomena identified in this paper as our area of concern has been derived from that we see as a number of different effects (i.e. evolutionary disruptions) that follow from the introduction and peoples' engagement in social media.

Pragmatics put attention towards peoples' use of language and the knowledge about interaction in solving basic problems of communication. This means a focus upon meaning, action, and coherence (e.g., Jacobs, 1994). In ordinary interaction these are managed through constraints participants impose on their interaction through linguistic and non-linguistic means, especially as these frame allowable contributions to ongoing activity (e.g., Levinson, 1979). Constraints arise as participants shape their actions to contribute to a purpose and interpret others' actions relative to that joint purpose (Levinson, 1979). Constraints include who can participate and what identity they can project, the allocation of turns and types of turns, topics, and so on (Drew and Heritage, 1993; Levinson, 1979). Purpose can be joint goals, or shared identities, that vary in explicitness and formality as in the way chat, business meeting, negotiation, and a judicial hearing differ from each other (Drew and Heritage, 1993; Levinson, 1979). Constraints on action give interaction a particular purpose, which establishes different kinds of

relations and identities and shapes the epistemic function of the interaction (Levinson, 1979; see also Drew and Heritage, 1992).

Constraints can also be an object of intentional design as people create and re-configure the ways they meet and gather and as technologies and procedures are developed to support various kinds of communication (Aakhus, 2007; Aakhus & Jackson, 2005). In the history of work and management, for instance, the nature, role, and relationship of types of meetings workers have with each other and with management have been an important part of the managerial exercise of control over work and production (e.g., Kunda, 1991; Schwartzman, 1989; Yates, 1989). Meetings, encounters, and the activity among people these are intended to are the object of design while the invention and implementation of OSTs play a role in the effort to constraint interactivity toward particular ends. Thus, the micro-matters of interaction is the terrain where disruptive technology creates shifts and thus struggles over the nature and purpose of encounters and meetings in the workplace (e.g., who should be involved, what should be discussed, relevant contributions, how to solve differences, and the like).

Our aim is to draw on these pragmatic principles to understand how managerial responses to social media and other OSTs vary in terms of their designs for communication. In order to do this, we first need to be able to characterize managerial responses to OST in terms of pragmatic orientations and then to specify principles that differentiate responses along with the underlying folk-logic that produced the response. Our first step then is to characterize responses as responses to the pragmatic conditions of communication – that is, presumptions about how forms of interactivity give rise to different qualities of communication among participants of those interactions.

Our position at this point is that responses to social media can be characterized at a basic level in terms of the aspects of activity that it attends to (and by implication what it does not attend to). Thus activities from the managerial point of view are treated as institutionalized forms of interactivity (or interactivity that could be institutionalized) that serve a purpose relative to the business of the organization. This includes both the activity and the network of activity which constitutes participation. While management no doubt responds to the social media, that response is bound up in an understanding of how interaction works or ought to work. For the purposes of articulating these practical pragmatic theories, we assume that there is a *design relationship* between management and activity where management exercises some influence or control over the nature of the activity by constraining interaction toward some end that responds to organization exigencies and generates products (material and/or symbolic). The reconstruction treats the managerial response as though it is rational – that is, adapting means to achieve ends. However, this working assumption does not presume how managerial responses frame the relationship among interactivity, exigencies, and products. That is something to be discovered. Moreover, we recognize at least two basic senses of design – the intentional act to shape something into a particular form and the emergent meaningful patterns that arise through ongoing interaction – even though our starting point is with the intentional.

We put forward the following concepts, drawn from Aakhus (2002) and de Moor and Aakhus (2006), to guide the empirical task of reconstructing the practical pragmatic theories evident in managerial responses to OSTs:

- *Exigence*: Activities exist relative to some exigency which is the framing of the "something needed to be done," the audience, and the constraints on the situation (see Bitzer, 1969; Yates & Orlikowski, 1992; but also Craig & Tracy, 1995).

- *Purpose*: Activities have some overriding purpose (or hierarchy of purposes) that address (or have the potential to address) the exigence as conceived (Aakhus, 2002).

- *Orchestration*: Activities have aspects that can be characterized in terms of features of interactivity (e.g., Levinson, 1979; Winograd & Flores, 1987). This includes features, such as:

    o Types of contributions (Levinson, 1979; Winograd & Flores, 1987)

    o Sequencing of contributions (Levinson, 1979; Winograd & Flores, 1987)

    o Roles & participation status (Clark, ; Goffman, 1981)

    o Networks and the input-output relationships among 'conversations' (Winograd & Flores, 1987).

- *Rationale*: Activities have a rationale that links the ostensible means-ends relationship between the process and product of interaction. Whether that link is actual or symbolic matters but for a variety of instrumental and non-instrumental reasons (Aakhus, 2002; Craig & Tracy, 1995).

The following cases further illustrate these concepts in drawing attention to the pragmatic disruption of OSTs. The response can be reconstructed as holding an explicit or implicit position on the nature of the activity and network of activity (i.e., exigency, purpose, orchestration, rationale) and what to do about the affordances for interaction disrupted by the OST.

NCAA Football Viewing case

The organizing body for a conference of American college football teams reversed its original ruling banning social media from its stadiums during football games. Essentially, the fans attending games could not tweet about a game while in progress or make sideline audio and video recordings for posting on social media sites. American college football is large entertainment industry unto itself. The purpose of the ban was to control the dissemination of the football game through non-authorized channels. The fans of the teams swiftly and strongly voiced their dissent. Even the traditional media organizations spoke out against the ban. The organizing body revised its policy to include as acceptable tweets, short messages, and pictures. The organizing body had not recognized how the assumptions of the traditional media world do not match well with the new media world, as the spokesman said: "We probably took traditional media rights language and tried to apply it in a new media world" (gordons_republic, 2009). Indeed they had. What this story begins to reveal is how OSTs disrupt the institutionalized form of activity and the developed pragmatic grounds for carrying out that activity and realizing its results.

There was a way that the meeting and gathering of a college football game was carried out. In short, the event was orchestrated so that participants took up certain roles and participation status relative to the

event: fans sat in stands, players played, television and radio announcers broadcast the unfolding event, and newspapers reported. The orchestration further tied the participant status to preferred forms of communicative acts to be performed: expressives by fans, assertives by reporters, and so on. The constraints on these actions then resolved some exigencies of such a gathering by enabling joint, mutual, sustained attention to the event. Moreover, these constraints contributed to the production of media content for broadcast. Then comes the disruption of the OST and the affordances for participating in the event. The game event is still structured to focus attention on the play of the game but the way people can interact with the game and each other shifts as almost anyone can now perform the actions of reporting and broadcasting.

The change that is significant is in the interactional possibilities among the participants afforded by the OST. The response by management is first to shape the interactional possibilities by constraining the OSTs to resemble interaction and relations prior to the introduction of OSTs. But, the stakeholder driven approach prevails in a manner that the management finds new opportunity. OST was treated as a way to foster more participation in the event not less. The use of social media was discovered to be or treated as synergistic with the aims of the organizing group. Hence, then a shift in the rationale for how to orchestrate the event, how that orchestration leads to a preferred from of participation, and retains established interests in the product of the overall interactivity of the event among the teams, the fans, and those reporting.

The Domino's Pizza case

Within a few minutes, the YouTube video of Domino Pizza employees sneezing on a sandwich, putting cheese in their nose and doing other unseemly things to the food before it was delivered, had been viewed more than a million times. This video was posted by some employees at Dominos Pizza. This situation generated an intense debate of how companies need to monitor the continual development of their brand online. In this case Dominos pizza responded quickly (REF!) by their own video on YouTube. "One lesson few large companies understand with crises online or spreading through social media is NOT to issue a press release. Instead speak directly to people on the medium where the crisis is happening. For Dominos, that was YouTube." (MEDIAdeluge, 2009).

In the Domino's Pizza case, the disruption has to do with the fact that the employee can disseminate an untrue but possible event to the masses. The "internal" became "external" and something the company had to respond too. The way the company responded to such a happening also changed.

Consequently a number of different behavioral norms related to management response became at centre of discussion. Some examples, identified as good behavior by people observing the way that management of Domino's responded to the situation, were:

- The identification of a designated spokesperson

- The use of conventional languages

- The expression of gratefulness to social media for bringing the matter to the spokesperson's attention

- An emphasis on over addressing the problem

- The reiteration of the company brand

And some examples, identified as less appropriate behavior, were:

- The spokesperson's use of prompter or cue cards

- Setting up a Twitter account as a response to this single situation occurring

These procedures of management response to the use of social media could be right or wrong. It could at least be said that the practice evolving now has initiated conversations about norms for management response. According to MEDIAdeluge (2009) some additional "things" to consider, which should be considered as norms, are:

- Do whatever necessary to address the crisis immediately and credibly

- Do everything possible to view the crisis from the outside and be a good listener

- Stick to the key messages

- Stick to an identified target audience

- Rather flood the audiences with information than to starve them of it

- Use different channels of communication and do not let the media dominate your team's time and attention

- Take control of the situation

By the use of pragmatic concepts such norms related to management response to the use of OST by employees different actor roles and the communicative function of different actions performed by these actor roles (or about to be issued) in patterns of initiatives and responses could be identified and analyzed. From the Domino case it can be revealed that the employee took an initiative that created enormous attention by others (the public) also joining the discourse. It should also be noted that the initiative taken by the employee and the responses (becoming initiatives) made by the public required a response (and a new initiative) by the management.

4. Conclusion

In this paper we have addressed the phenomenon of evolutionary disruption in the organizational adoption of open and social technologies. The particular focus has been on management response to such technologies and the implications for business. Evolutionary disruption is conceived as a radical

change brought about by changing norms and behavior due to developments in information technology infrastructure.

In this paper some foundation for a research framework has been laid out distinguishing a different focus on the emerging phenomena related to evolutionary disruption. We claim that a research program based on the concepts laid out in this paper can turn pragmatics into a means for empirical and design-oriented research not just prescription as it has primarily been for in IS/IT research in the past. Such research would be highly influenced by studying different instances of interactions related to the evolutionary disruption of OST by considering the elements that make up a social media infrastructure (e.g., in addition to the technology, the policy statements, interviews, news accounts, agreements of different kinds, such as non-disclosure agreements, explicit and informal work agreements and arrangements between groups and organizations) as well as blog commentaries.

The next step in this research-in-progress endeavor is to systematically collect actual cases of managerial responses to OSTs and analyze these by the use of the pragmatic approach discussed here. We aim to further develop our explanatory mechanism that distinguishes how managerial responses vary to include why these responses vary. We assume that has to do with practical theories about how interaction processes lead to outcomes. We also have ambitions to influence ongoing debates about managerial responses to OSTs on the net by injecting the use of pragmatic concepts as a source for focusing on aspects that matters. Our hope is that such orientation would generate additional empirical data and (hopefully) developing an attitude towards OST by people taking part in such interaction about the phenomena of evolutionary disruption of OSTs.

References

Ågerfalk P J, Edenius M and Hrastinski S (2008) Framing participation in organizational online communities: Research challenges, Proceedings of the 31st Information Systems Research Seminar in Scandinavia (IRIS 31), Åre, Sweden, August 10–13, 2008.

Bitzer, L. (1969). The rhetorical situation. Philosophy and Rhetoric, 1, 1-14.

Blumer H. (1969). Symbolic interactionism: Perspective and method, University of California Press, Berkeley.

Bower and Christensen (1995). Disruptive technologies: catching the wave, *Harvard Business Review*, 73(1), 43–53.

Chesbrough H. W. (2003) The Era of Open Innovation. *MIT Sloan Management Review.*

gordons_republic. (2009, August, 20). NCAA fails in sideline twitter ban. Message posted to http://community.brandrepublic.com/blogs/gordons_republic/archive/2009/08/20/ncaa-fails-in-sideline-twitter-ban.aspx

Craig, R. & Tracy, K. (1995). Grounded practical theory: The case of intellectual discussion, 5(3), 248-272.

Christensen C.M. (1997) *The innovator's dilemma: when new technologies cause great firms to fail*. Boston, MA: Harvard Business School Press.

Danneels, E. (2004). Disruptive Technology Reconsidered: A Critique and Research Agenda, J*ournal of Product Innovation Management*, 21(4), 246–258.

Dewey J. (1931). *Philosophy and civilization*. New York: Minton, Balch & Co

Drew, P. & Heritage, H. (1992). *Talk at work: Interaction in institutional settings*. Cambridge: Cambridge University Press.

Fagerberg, E. (2009). Facebook på jobbet delar arbetsgivarna (In Swedish, "Facebook at work divides employers"), Uppsala Nya Tidning (Swedish daily newspaper), Mon 26 October, 2009, p.15.

Goldkuhl G. & Lind M. (2008). Grounding Business Interaction Models: Socio-Instrumental Pragmatism as a Theoretical Foundation. In P. Rittgen (Ed.) *Handbook of ontologies for business interaction* (pp. 69-86). Idea Group: Hershey, PA.

Jacobs, S. (1994). Language and interpersonal communication. In M. Knapp & G. Miller (eds.), Handbook of Interpersonal Communication (pp. 199-228). Newbury Park: Sage.

Kunda, G. (1992). Engineering culture: Control and commitment in a high-tech corporation. Philadelphia: Temple University Press.

Levinson, S. (1979). Activity types and language. Linguistics, 17, 365-399.

Linell, P. (1998). *Approaching dialogue: Talk, interaction and contexts in dialogical perspectives*. Amsterdam: John Benjamins.

Lyytinen, K., & Rose, M. G. (2003a). Disruptive information system innovation: The case of Internet computing. I*nformation Systems Journal*, 13(4), 301–330.

Lyytinen, K., & Rose, M. G. (2003b). The disruptive nature of information technology innovations: The case of Internet computing in systems development organizations. *MIS Quarterly*, 27(4), 557–595.

Mead, G. H. (1934). *Mind, self and society*. Chicago: University of Chicago Press.

MEDIAdeluge (2009) http://www.mediadeluge.com/post/96978048/dominos-responds-to-brand-crisis-through-social-media (retrieved: 2009-09-30)

Schwartzman, H. (1989). The Meeting: Gatherings in organizations and communities. New York: Plenum.

Strauss, A. (1993). *Continual permuations of action*. New York: Aldine de Gruyter.

Weber, M. (1978). *Economy and society*. Berkeley: University of California Press.

Von Wright, G. H. (1971). *Explanation and understanding*. London: Routledge & Kegan Paul.

Yates, J. (1989). Control through communication: The rise of system in American management. Johns Hopkins: Baltimore.

Yates, J. & Orlikowski, W. (1992). Genres of organizational communication: A structurational approach to studying communication and media. Academy of Management Review, 17(2), 299-326.

芽|Sprouts