THE RHETORICAL SITUATION FOR KNOWLEDGE SHARING OF BEST PRATICES IN CORPORATE ONLINE ENVIRONMENTS

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ABSTRACT

This paper focuses on the situation to be addressed, when designing IT systems for Knowledge Workers that are expected to participate in both sharing and innovating work processes within a large corporation in communities of best practices. The work presented is based on: philosophical analysis, qualitative data from a global corporation and Web 2.0 design artifacts from the World Wide Web. It is argued that we may benefit from addressing the design a Knowledge Management Systems with rhetorical communications theory as an alternative way of prescribing designs that would make the users feel the need to communicate knowledge.

KEYWORDS

Rhetoric, Knowledge sharing, KMS, communities of practice, online communication, Knowledge Contribution, Community

1. INTRODUCTION

Drucker speaks of a century of social transformation and the emergence of the knowledge society (Drucker, 2005) and the rise of the knowledge workers (KWs) and how they differ from blue-collar workers since their jobs requires: formal education, the ability to acquire and apply theoretical and analytical knowledge and above all a habit of *continual learning* (Drucker, 2005). Firms can thus be conceptualized as an institution for integrating knowledge and given that assumption you may argue that the only real sustainable competitive advantage is effective and efficient organizational knowledge management (Grant, 1996). Knowledge Management (KM) may be defined as identifying and leveraging the collective knowledge in organizations to help the organizations compete by turning knowledge resources into value-creating activities (von Krogh, 1998). Knowledge Management Systems (KMS) may be defined as systems that aid in sharing knowledge in organizations (King & Marks, 2008). Currently we do not have a single clear approach to the development of KMS (Watson, 2001) and management in many organizations has discovered that the availability of electronic communication technologies is no guarantee that knowledge sharing will actually take place (Wasko & Faraj, 2005). Bansler and Havn (2002) provide us with a recent example of a costly KMS that was abandoned after three years. Despite very dedicated efforts including solid attention from top management, the KWs simply did not adopt the system that was designed for them (Bansler & Havn, 2002). Many more examples could be mentioned (Coakes, 2004) suggesting that the deliberate design of KMS is a complicated affair. While some internal KMS have problems with gaining committed users, we can observe that some Web 2.0 systems have staggering amounts of users. Websites like Myspace.com, Facebook.com and Linkedin.com have users

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contributing plenty of content. Furthermore these systems run on intrinsic motivation alone, without managerial prompting. Users are contributing on a voluntary basis in their spare time. From a practical perspective the following research question emerges: Would we be able to address the motivational-context of KWs when designing KMS for globally distributed organizations by adopting Web 2.0 concepts?

Here a case study is presented that took place to investigate how we might design KMS addressing the motivation of KWs. The data is analyzed from the perspective of rhetorical communication theory. The paper is organized as follows: First, the case is explained. Second, the research approach and the sources of data gathered are described. Third, Lloyd Bitzer's theory of the rhetorical situation is introduced and applied as a lens for analyzing the data from a communication perspective. Lastly, the findings' implications for the design of the KMS is discussed and parallels are drawn using two examples of Web 2.0 concepts.

2. THE CASE

X-Corp[2] is a global engineering company with 20,000 full time employees. It is historically comprised of three divisions each having their own distinct culture. During the past five years acquisitions of smaller companies have only added to the diversity in business processes. It has been decided that X-Corp will undergo a global transformation project, where the culture will be shifted towards an employee mindset focused on continuous process innovation. To drive this effort, a new cross divisional department has been created: Corporate Business Services (CBS). In the words the Vice President and Chief Development Officer, CBS plays a central role in ensuring the success of X-Corp:

> "The ability to continuously do things better than before needs to become a strong part of our culture. CBS will enable us to take a huge improvement step, sustain it and then take another huge step – over and over again".

CBS has taken the initiative to diffuse best practices into the whole of X-Corp via dedicated programs addressing certain processes within several business domains since uniform processes are less costly. This has been done by establishing programs that will develop and diffuse first generation of business processes at X-Corp. There is a need for a new KMS for this purpose. The current system both serves as a knowledge repository for getting information and for learning processes. The new system will be designed specifically to support development and innovation of new processes and serve as a repository for existing ones. Better facilitation of ideation and innovation of processes is needed, for instance allowing the employees to make suggestions for new processes or suggest changes to existing ones. User generated content is a must; for this effort to succeed the KWs must actively produce and contribute content.

3. DATA GATHERED

Qualitative data was gathered to investigate what might motivate the employees to contribute with content in a KMS. Overall observations were primarily focused on the current mode of innovating work practices, the methods employed, the KWs contributions to the current KMS and the planning of the new KMS. A multi-method

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[2] This pseudonym for the company name will be used throughout the paper.

approach was employed (Creswell, 2003; Saunders et al., 2007). This was done with an emphasis of getting an understanding and gaining an inside view of X-Corp in general (Ghauri & Grønhaug, 2005). Data was gathered from stakeholders that were to use the KMS or that were already using the current system, the Process Reference Guide (PRG). I spoke to employees that would aid in the design and realization of the new system including a senior strategic advisor from the IT department. I was included in internal communication in the department that was responsible for the KMS and I had access to central people that were driving the effort from the CBS department. I also had access to the current system employed. I spoke to the employees that were taking care of the administrative tasks of usage such as adding new users. These people were all engaged in meetings and informal discussions. Most effort was put on the users that were to drive the KMS and to ensure that content was developed and being added and the KWs that were to add content. In the first phase of the research data was gathered in five loosely structured interviews (20 minutes duration) and in six structured interviews (1½ hours duration). The loosely structured interviews were recorded. The structured interviews were transcribed at the time of the interviews. I assumed the role of a secretary; asking questions and then typing down the answer. I would allow for the subjects to first use one formulation and later change it and then retype their final formulation thus sending the meaning back to them (Kvale, 1996). At times I would eagerly make notes of everything, but I found it to have a negative effect on subjects as it interrupted their thinking, they would simply pause their speaking and wait for me to catch up. I found this brought too much attention to me being a researcher. More often bullet points were noted with specific quotes that I found to hold some essence of the situation at hand. The longitudinal dimension of the research was a stay of three months at X-Corp spread out over a period of approximately nine months. While staying on site at X-Corp Global Headquarters observations took place. The main activities were observing and engaging with the employees both in work and in social events. The situation investigated comprised cross divisional corporate meetings, meetings in business units and with middle managers; also presentations were given explaining the purpose of the research and providing some examples of social software from the Internet. Meetings were held with a multitude of stakeholders from different departments and at different levels in the organization. While staying onsite it became natural to engage with employees in casual lunches as well as in informal discussions near the water cooler and in hallways or just over the desk when working late at the office. Observations also took place in several corporate workshops, participating in process development innovation workshops. After two months of onsite observations, an early stage PowerPoint work-in-progress prototype was used as a basis for opening up a frank discussion, of what a system was to offer if it were to motivate the usage of itself in the fast paced environment. Artifacts in terms of internal documentation were gathered: annual reports, newsletters, photographs of venues as well as whiteboards and events. Slide decks, spreadsheet tools and documents as well as examples of their use. All the data and the activities served as the foundation for understanding the current situation for contributing and innovating business processes and how that might take place in a distributed fashion in an online system at X-Corp.

4. STRETCHING RHETORIC BEYOND ITS INTENDED DOMAIN?

I decided to examine KWs situation at X-Corp from a rhetorical communications perspective as I speculated that we might observe communication itself as a trace of motivation. One definition of rhetoric is that it is an action that humans perform when they use symbols for the purpose of communicating with each other (Foss et al., 1985). We can say a rhetorical action has occurred when someone does something for the

purpose of communicating to another person (Foss et al., 1985). Any deliberate utterance can therefore be seen as communication with a purpose or motive. For instance, KWs do not use symbols to communicate to other KWs via KMSs for no reason; they only do so if they are *motivated,* be that by culture or managerial prompting or something else. Was KWs at X-Corp in a situation that would make them communicate about best practices and the development of new ones online? To have this type of communication occur was in essence the main KMS design criterion. I hoped that analyzing the data from the perspective of communication using a rhetorical theory might generate novel insights into the design of KMS systems or verify existing ones.

5. BITZER'S RHETORICAL SITUATION EXPLAINED

Bitzer (Bitzer, 1968) argues that a rhetorical work functions to produce action in the world and is controlled by the rhetorical situation which generates it. This rhetorical situation is comprised of any combination of persons, events, objects and relations which *requires* rhetorical response. There are three major constituents of any rhetorical situation: 'exigence', 'audience' and 'constraints'. The term 'fitting response' is also important to note. The first of the three, 'exigence' is defined in a rhetorical situation as an "imperfection marked by urgency." (Bitzer, 1968, p. 6). This imperfection is to be solved or remedied by communication, thus a situation is only rhetorical if it can be resolved with communication that persuades an audience to act in a way that removes the imperfection. Thus the exigence is a condition calling for action functioning as the organizing principle of the discourse, for instance, rainy weather could not normally be considered an exigence since talking about it cannot change it, whereas global warming can be seen as an urgent imperfection that could be resolved by persuasion. The second constituent element, 'audience', as described by Bitzer "consists only of those persons who are capable of being influenced by discourse and of being mediators of change." (Bitzer, 1968, p. 8). They can ensure the wanted change if they are persuaded. Thus a rhetorical audience is comprised only by those capable of being influenced and capable of resolving the exigence. The third element, 'constraints' is described as "persons, events, objects, and relations that are parts of the situation because they have the power to constrain decision and action needed to modify the exigence." (Bitzer, 1968, p. 8) Thus constraints are both positive and negative traits of the communication situation that influence the options and choices of the communicator. They are elements inherent in the situation or developed by the speaker, which *constrain* the decision or modify the exigencies. Lastly, the 'fitting response' is the communication that resolves the 'exigence' by addressing the 'audience' to ensure the wanted outcome. We need to note that one rhetorical situation can have many fitting responses. Bitzer himself uses the assassination of President Kennedy as an example and describes how that situation demanded a specific kind of appropriate fitting response. Being pragmatic we can use Bitzer's definition of the rhetorical situation to state that the reason for communication in a certain sense is to end communication itself. We address imperfections marked by urgency to fix them and move on with our lives. We should also note that Bitzer's model is very broad in essence it is a philosophical model for all human communication. If we for instance engage in small talk at a bus stop, it could be exigent to us to break an embarrassing moment of silence – thus addressing a rhetorical situation that has arisen, namely that the silence feels uncomfortable.

Bitzer's theory was heavily criticized by Vats (Vatz, 1973) in his article "The Myth of the Rhetorical Situation." In short Vatz argues that Bitzer's model is too deterministic. Bitzer for instance states: "While the existence of a rhetorical address is a reliable sign

of the existence of situation, it does not follow that a situation exists only when the discourse exists." (Bitzer, 1968, p. 2), Vatz on the other hand argues that humans as subjects cause situations and that free human actions can lead to exigencies emerging in the form of rhetorical situations. Using the "Cuban Missile Crisis" as an example, Vatz states that it only became a crisis as politicians and government officials began addressing it as such (Vatz, 1973). Vats critique of Bitzer is mostly concerned with two things: First there is the general ontological objection that situation does not occur as such. Vatz cannot subscribe to the notion that a situation has an objective existence detached from human interpretation. Second, Vatz fears that the field of rhetoric will be reduced to a parasitic construct attached to disciplines that describe reality, for if rhetorical situations can exist detached from human interpretation then rhetoric is no longer as essential as for instance philosophy or economics (Vatz, 1973).

Regardless of what ontological implications that possibly could lurk beneath the surface of Bitzer's model, it is composed of only three constituent elements and it still offers us explanatory power in regards to understanding communication in a simplified form. The model also allows us to prescribe characteristics of a fitting response, since we can describe what a fitting response must mitigate in order to make the make audience mediators of change.

6. DATA TRANSFORMATION USING BITZERS THEORY

When transforming qualitative data into conclusions according to Saunders, we may sort our qualitative data into meaningful categories derived from an existing theoretical framework (Saunders et al., 2007). The rhetorical situation was employed as a theory for categorizing data to hopefully discover emergent structures in the data gathered (Saunders et al., 2007). Since Bitzer offers clear categories in the form of the constituent elements: 'exigence', 'audience', 'constraints', his model could be applied by reinterpreting the data: reviewing notebooks, interviews, artifacts and relistening to recordings as categories emerged they were categorized in accordance with the model (Ghauri & Grønhaug, 2005) . Naturally not all data fit into the categories, thus in reality a fourth category came to existence: non constituent data elements. For the purpose of this paper, Bitzer's model was applied as an analysis tool mapping two different perspectives: One was the rhetorical situation as seen from the KWs perspective and the other was the rhetorical situation seen from the perspective of the top level management.

7. THE RHETORICAL SITUATION AT X-CORP A DICHOTOMY

By applying Bitzer as described above, two clear exigencies were found. For the management a clear exigence was found. It is exigent for the management at X-Corp to ensure that continuous development, sharing and learning of business processes can be accelerated to meet the overall corporate strategy of continuous sustainable growth. True to Bitzer's model a rhetorical situation *emerged* for the management: global competition, the sub-prime crisis, increase in prices for raw materials and a well defined benchmark group showing that uniform processes was more profitable – all these issues emerged as a whole forming a rhetorical situation that was exigent for the management. It had become an imperfection marked by urgency that a continuous growth mindset and attitude from the workforce was not prevailing at X-Corp, while competitors were already reaping the benefits from more uniform and updated processes and thus less costly business processes. This exigence set the agenda for the whole corporation and hard measures were set for the profitability of X-Corp. However a dichotomy was

detected as it emerged that uniform business processes, continuous learning and improvement were not seen as truly exigent from the perspective of the KWs that were to do the actual sharing in communities formed around best practices.

THE RHETORICAL SITUATIONS AT X-CORP		
	Management	Knowledge Worker
Exigence(s)	• Employees must share knowledge in a self sustainable way to ensure profitability. • Uniform business processes, continuous learning and improvement are the way to ensure growth and profitability.	• To solve issues currently most important to me, my nearest manager and my business unit. • Daily operations. • Getting things to work.
Audience	• Knowledge Workers at X-Corp	• Nearest manager & Colleagues
Constraints (Positive)	• Employees understand that the bench mark group is doing better and change is needed. • Many employees would like a more uniform set of processes and clearer communication.	• Passion and willingness to work with business processes. • Genuine interest in improving • Employees are interested in being autonomous and not having to deal with several management layers in order to change modes of work.

Constraints (Negative)	• Primarily all the constraints of their audience the knowledge workers
	• Management is under the influence of multiple exigencies. Many things are exigent at the same time; a KMS is just one of them.
	• Management is not tech savvy
	• Management is leading people with more domain knowledge than themselves.
	• Identity issues:
	  o Identity might be partly upset by new free and open technologies.
	  o Might not always be genuinely interested in free flow of all information in all situations.
	  o Unease at what unleashing new tech such as blogs and wikis might bring in terms of free communication.
		• Lack of time – or even time famine
		• Sharing Knowledge is yet another meta-thing to do. Innovating and maintaining business processes is only a part time task. Extra work – but no clear "what's in it for me"-aspect.
		• Working online has very low visibility.
		• Lack of clear incentives
		• Lack of experience with online community software.
		• Task is presented as very important, but this is not clearly reflected in everyday work.
		• The culture of i.e. Sales Peoples is not dominated by altruism and openness. Even in real life it is hard to obtain the 'tricks of the trade'
		• Current system has a somewhat weak ethos, not all employees find it fun or giving to use it.

Table 1: Rhetorical situations at X-Corp.

Below I elaborate on the main constraints that would need mitigation if a fitting response were to be made for the KWs to engage in the new KMS:

Time famine and shifting priorities: Time famine, a term coined by Leslie Perlow (Perlow, 1999) refers to a state where employees simply do not have any time at all to spare. At X-Corp it was observable that people were too busy to actually conduct all their work. During onsite observations it was clear that people worked long hours, in particular leading up to training events. During these events both support office employees and the attending KWs worked as much as 16 hours a day. During normal work hours at the global HQ one employee mentioned feeling guilty not spending enough time with her family. Also, an immediate need to execute on a specific subtask could clear the calendar. This naturally caused ripples in the KWs planning, but important ad hoc tasks came and they had to be resolved and were given priority over normal work. Several KWs spoke openly about mail "dying" in their mail boxes, since there was always too much of it. Another subject had chosen to disabled the corporate chat client, since she felt it was just another way to get additional work assigned to her. Mass emails would sometimes contain a plea to actually read them: "Please read the whole of this meeting request!"

Lack of experience with community software: In loosely structured interviews six random subjects were asked, "Do you use the Internet in your spare time? For what?" All subjects first mentioned mail and when pressed more for other types of usage they mentioned: banking and travel booking. When asked if they were accustomed with adding content to the Internet, they all replied no. While staying onsite no KWs were seen using social software during work hours. During a speech to 34 middle managers, they were simply asked: "Can we have a show of hands how many in here use social software, community software such as: Linkedin (www.linkedin.com), Orkut (www.orkut.com), facebook (www.facebook.com) or Myspace (www.myspace.com)?" only 6 people did. Discussing these findings with a more tech savvy subject, he humoristically remarked, "If you are very happy in your first life, why would you go into second life?"[3]

Current system has a weak ethos: Sharing knowledge and developing and innovating business processes was often considered yet another meta-thing to do in the sense that it was an extra thing to do that was not the work itself. For most of the people involved innovating and maintaining business processes was only a part time task. It was one of many things that they were *supposed* to engage in. Even the support office specialists at the Global Head Quarters that were driving the change effort at X-Corp had a whole variety of things to do. The employees managing the current Process Reference Guide system made it clear that making KWs update the system was a task that demanded an external driving effort in the form of managerial prompting. One subject who was involved in maintaining the current KMS said:

> "Sometimes I have the impression that they are just uploading something, so that they can say that they did it."

When being walked through a PowerPoint prototype showing a sub set of a new system the immediate conclusion from the participants was that they would not use it unless it provided a real benefit for them to check into the system every morning. Despite

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[3] Second Life® is a online 3-D virtual world created by its users: www.secondlife.com

explaining about a possible overall benefit of such a system the KWs still openly spoke of a: "What's in it for me?"-factor, they did not perceive the suggest system design to really be helpful for them.

Important task and direction setting: Although the task of ensuring the diffusion and development of uniform business processes and tools was presented as very important, it was less clear in the daily work for the individual KW. This was partly due to the fact that many things were very important. In general, it was observed that daily operations took priority over updating processes, despite very clear direction setting. For instance, at a quarterly meeting for the Business Support Department and its programmes, a Vice President quite bluntly stated that, "Unless the target of XX millions is met this year, it is not that likely that the Executive Board would just say: 'Well let's try with some more millions next year and see what happens...'" As an observer it was hard to determine whether it was aimed at invoking a sense of urgency and seriousness – or if it was a shear fact and that he knew the programmes would be cancelled the following year, if targets were not met this year. Later I brought it up in a conversation with a KW and asked her what she thought. She mentioned that, "It did not leave you thinking *we can do it;* it made me think f*** this is really tough."

Missing incentives for process innovation: In structured interviews it became clear that no uniform incentive structure was in place for business process innovation at X-Corp. The only well established innovation reward was a relatively small patent award. Some subjects mentioned that product innovation normally was rewarded in a more direct fashion. Some subjects mentioned process innovation might receive oral praise and that it could impact the yearly bonus positively. However when discussing sales processes at a workshop the discussion broke: Why would a sales person be interested in participating in a new system on a regular basis? Sales people for instance think very strongly in reward structures, these are part of the sales process, i.e. bonuses for successful sales. The discussion was hinting that financial rewards at least were something that acted as a driver in real life. Again the "what's in it for me"-factor surfaced. On another occasion a subject explained that the culture of the sales peoples was not one of openness. He remarked that even in real life it was hard to obtain the "tricks of the trade". He argued that there was no real reason to share such information, since it would in a sense only allow your internal competitors to gain on you. Why would you risk that? Also, the work done in the current system was hardly visible, the system was not the best place to get a promotion.

7.3 Known issues found

We must note that the negative constraints uncovered by the analysis have also been found by employing other theories, and thus the negative constrains found are as such not entirely new, but the approach taken employing rhetorical communication theory to arrive at them are. The constraints found here have also been discovered by others using different methods, for instance: time (Perlow, 1999), lack of clear incentive structure (Bansler & Havn, 2002; Brodie et al., 2007), upsetting social structures or position (Grudin, 1994) and lack of clear "what's in it for me" benefit (Grudin, 1994) or performance expectancy (Venkatesh et al., 2003). The main conclusion of the rhetorical analysis is that it might not make sense to share seen from the perspective of the individual KW. This is mostly due to time constraints, a lack of a sharing culture and an unclear "What's in it for me"-proposal. The overall posture taken by many KWs at X-Corp has been dubbed the utilitarian perspective (Jian & Jeffres, 2006). According to this perspective individuals are calculative and driven by self interest, when it comes to

knowledge sharing. Sharing itself becomes the object of the individual's analysis of benefits over costs (Jian & Jeffres, 2006). As whole substantial negative constraints were found and they indicate that daily sharing, innovation and development of business practices online is unlikely to occur. This poses a business management problem at X-Corp: How do we address such a situation with a KMS design?

8. A WEB 2.0 PARALLEL

As a perspective on the situation at X-Corp, this section will explore how we might benefit from adopting certain concepts from Web 2.0 when designing KMS. The main reason being that Web 2.0 websites have very dedicated users. Fueled by intrinsic motivation, users add content to websites for free. For some reason it is exigent for those users of to add content and those sites are experiencing enormous growth.

A compact definition of Web 2.0 is that:

> "Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an "architecture of participation," and going beyond the page metaphor of Web 1.0 to deliver rich user experiences." (O'Reilly, 2008).

Some of the most notable feature components of Web 2.0 include: wikis for collaborative writing, blogs for easy content publishing, a search paradigm in general, social networking (with profile pages), tagging content and reuse of data in the form of mashups (remixing). In general this is accompanied by a richer user experience, as the web pages are moving away from being static documents towards being small software applications running in a browser. In addition users are adding a lot of value in the form of content for instance Google maps (maps.google.com), where users can post descriptions if of certain locations. Possibly some Web 2.0 concepts could aid us in addressing the rhetorical situation at X-Corp or even further allow for us to develop a different posture when designing KMS directly addressing the KWs motivation to contribute.

9. A FITTING SYSTEM RESPONSE?

According to Bitzer (Bitzer, 1968), the fitting response is the communication that resolves the exigence by addressing the audience to ensure the wanted outcome. Since this paper deals with a technology solutions, we are in fact looking for a *fitting system response* that might resolve the exigence of the management at X-Corp. This is naturally different from just defining or communicating a message since a KMS is an interactive system. We must also note that some of the negative constraints found might be beyond the scope of IT and KMS. For instance monetary incentives are something that must be addressed outside of the realm of IT. We might however directly address the problem that sharing knowledge can be seen as paradoxical for the KWs, since giving away knowledge results is a loss in unique value relative to what others know (Wasko & Faraj, 2005). As designers we will then have to ask ourselves: Why would clever highly educated KWs take part in something that in a sense undermines their own identity? We cannot answer that question by stating that: "It is corporate strategy", "We really need it to become more profitable" or similar. Those are unfitting responses since

they do not mitigate the constraints inherent in the rhetorical situation. We will have to shift our focus to the end-user needs.

Web 2.0 communities they cater to socializing and possibly a sense of belonging and even identity reinforcement. If we somehow design KMS that invoke those types of feelings in users, then this might be the main lever towards gaining the attention of the KWs. King and Marks remark that employees are intrinsically motivated when their needs are directly satisfied (e.g., self-defined goals) or when their satisfaction lies in the content of the activity itself. Conversely, extrinsic motivation emanates from external sources, such as those that are involved in supervisory control (King & Marks, 2008). We may observe Maslow's classical hierarchy of humans needs (Maslow, 1943) as a guide towards what might be given priority by KWs. According to Maslow once lower level needs such as food and safety are covered people ultimately aspire towards covering higher level needs such as esteem and self-actualization (Maslow, 1943; Maslow, 1998). Consistent with this aspiration, Maslow points out that self-actualizing people actually assimilate the work into their identity of self, the work thus becomes part of individual's definition of himself (Maslow, 1998). We can hypothesize that if we could possibly design systems that would cater to KW's esteem needs and ultimately self-actualization, rather than knowledge sharing as such, those types of systems could possibly even partly solve time issues. If KMS designers can offer a very tempting added value catering to intrinsic motivation we might be able to persuade KWs to spend 10 minutes a day using and browsing a KMS. This approach would lessen the need for extrinsic motivators such as managerial prompting. Exploring this concept further we might almost regard the knowledge sharing itself as secondary or *ulterior design motive*. We should remember that a negative constraint found at X-Corp was lack of experience with community software. It might be strategically wise to build a strong foundation for sharing best practices by designing a system that is fun, entertaining and does not seem too much like additional work, but that in fact would make the KWs contribute valuable knowledge in the form of meta-data. In the following two sections I will offer two concrete examples of how this takes place in the domain of Web 2.0 social software.

9.1 Linkedin

At Linkedin (www.linkedin.com), people are documenting their own results and success while maintaining network relations with peers. LinkedIn offers its users the possibility to maintain a resume and their personal professional contacts while staying updated on their activities. The system offers both social navigation and news of the network itself. When you join, you create a profile that summarizes your professional accomplishments. When a user updates his resume his contacts receive an automatic notification. Users may also search the entire network including the contacts of contacts and view their profiles. This concept is very compelling, when designing a new KMS at X-Corp, a good start might be providing the KWs with internal profile pages where they are not asked to document much more than their own success and performance. This might easily be tied into real life. Anchoring the online efforts could be as simple as ensuring that KWs bring a print of this online list of accomplishments for their performance reviews. This design suggestion would mainly accomplish two things: Firstly it would offer the KWs an opportunity to show their professional accomplishments, but secondly it also caters to the ulterior design motive, in the sense that the KWs would also be building a community of searchable profile pages that may aid in locating the right person, addressing the problem of knowledge coordination i.e. finding the right resource (Sambamurthy & Subramani, 2005).

A cutout of a linkedin profile webpage (25/3-2008): We can observe many social cues for instance the opportunity to recommend someone and help them build a reputation as well as links to other contacts profile pages. Also we can see the degrees of separation between the person in the profile page and the person browsing the page. Not seen here, but as part of the cutout above, is a full resume containing former workplace, functions and projects that the person have been and is engaged in.

In this approach to the design of a KMS, the purpose does not seem to be a KMS allowing all possible explicit knowledge to be documented and shared. Rather, the approach could be to offer a space where the individual KW could socialize. This addresses one of Wenger's basic premises of communities of practice, the importance of facilitating that informal connections can occur (Wenger & Snyder, 2000; Wenger, 2004). Currently at X-Corp, it is hard to find the people that you might share a common interest with, but as suggested with the example above Web 2.0 address that issue with a different technology response. Once there actually is a sense of online community at X-Corp, we might push harder for the development of specific practices, for instance by allowing KWs to form groups across business units, departments and divisions. This approach would be very different from asking KWs to document their skills and their project track record.

9.2 Del.icio.us

Del.icio.us (www.del.icio.us) is another Web 2.0 example. Del.icio.us offers social bookmarking by letting users 'tag' links. A tag is simply a word or label used to describe a bookmark. Most Internet browsers employ a hierarchical folder structure for bookmarks. Tags differ as the end user can makes them up as they need them, using as many tags as they like on one bookmark. This aids in organizing and finding personal data, but its implications reaches further. When someone else posts related content using the same 'tag' it is visible. We can thus view all shared bookmarks about "sweets" and see the most popular items tagged "sweets".[4] In effect the users begin building a collaborative repository of related information; moreover the first user to actually contribute with link resource is clearly credited.
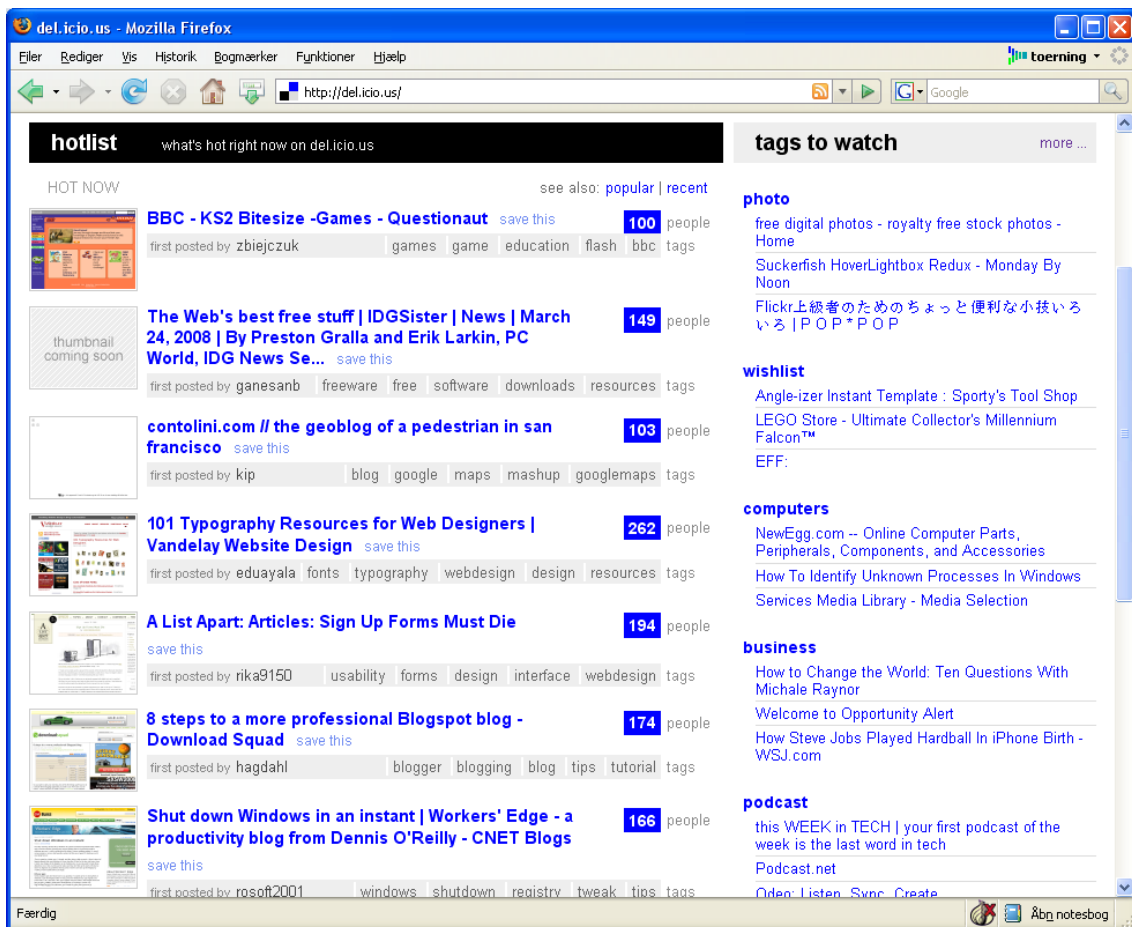

Screenshot of http://del.icio.us/tag/ (25/3-2008)- in the front page of the site we find a "hotlist" that displays the most bookmarked sites of the hour as well as who was first to contribute the link. In the column to the right we can see "Tags to watch"

IBM (www.ibm.com) has recognized this potential and developed a community evolved around social bookmarking (Millen et al., 2007). In studies they found it to be very successful in offering social navigation and a better way to store bookmarks. Introducing this type of design would offer KWs at X-Corp a novel way of storing, organizing and sharing bookmarks, while simultaneously documenting explicit knowledge about important links. For instance, new employees might find such a

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[4] All bookmarks tagged sweets are listed at http://del.icio.us/tag/sweets and the most popular bookmarks tagged sweets are listed at http://del.icio.us/popular/sweets.

system valuable when browsing the corporate intranet. Such a system would also aid in bolstering a sense of community on the corporate system intranet. Again, this approach is very different from directly telling KWs to file links for the common good of all employees. Instead, social bookmarking offers a clear benefit for the individual namely maintaining bookmarks and allowing for a more advanced organization of bookmarks, but in doing so the users actually end up sharing knowledge. No user is really working for the sake of others, but simply tending to one's own egoist bookmarking needs allows for the collective to benefit from exploring link resources in a new way. For example, an employee looking for someone knowledgeable in marketing can look at "marketing" tag to see who has been bookmarking pages around that topic, and further see what other tags this person has. Lastly this type of bookmarking allows for novel visualizations of most frequently used tags:
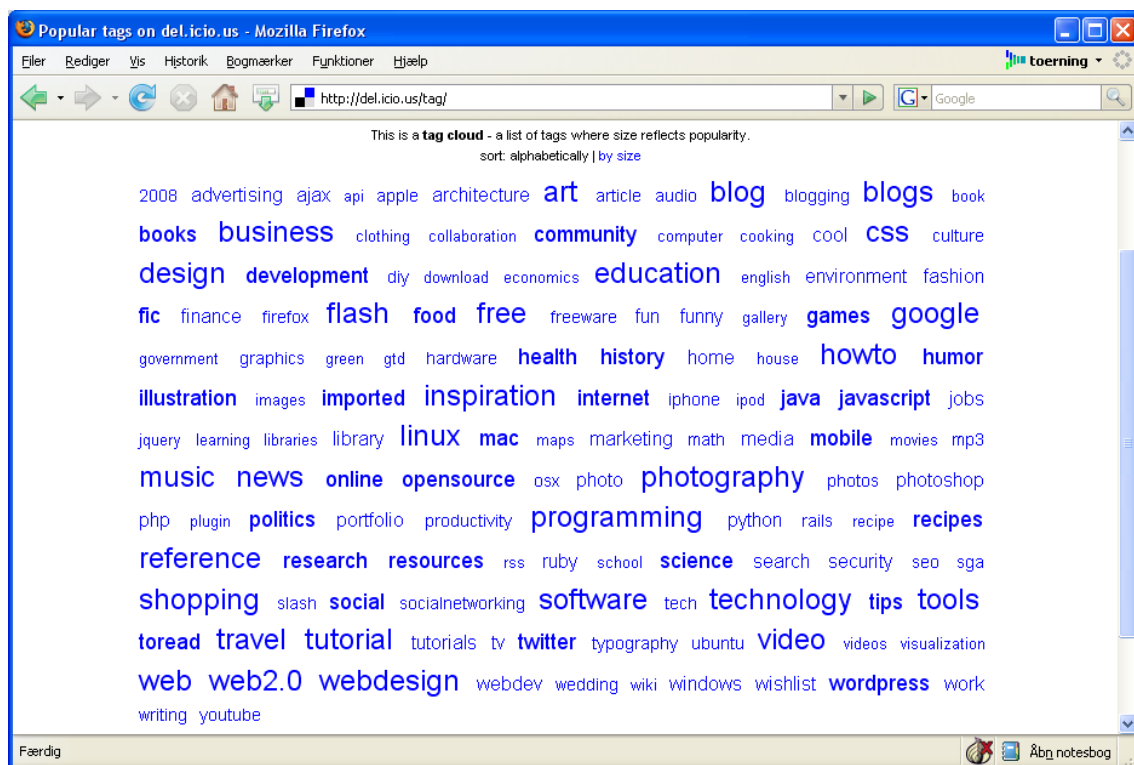
Screenshot of a Tag cloud via: http://del.icio.us/tag/ (25/3-2008)

10. CONCLUSION

A theory from the domain of rhetoric has served as the main theoretical foundation for this paper. It was explored how we might use a communication theory to analyze a situation to be addressed with technology. Several negative constraints were identified from qualitative data by applying Bitzer's theory of the rhetorical situation. A gap between the employees and the management emerged. Although the managers at X-Corp, for good reasons, wanted to gain a competitive advantage for the firm by having KWs sharing knowledge and developing processes the situation analyzed did not invite that type of communication from the KWs that were to contribute and communicate. Many of the constraints discovered had previously been described in earlier research, but here a novel approach was taken to arrive at similar conclusions by different means.

The communications perspective on information technology offered a particularly important approach to pre-qualifying designs of KMS that are to gain adoption and

endure real usage in organizations. By drawing parallels to Web 2.0, it became clearer that a fitting system response could be to approach KMS design as the design of a social software platform, since that might make it feel more exigent for the KWs to actually communicate, contribute and participate. In a sense the main design criterion would be to actually get the KWs to adopt the KMS. This would in a sense make knowledge sharing an ulterior design motive. The primary design criterion would be to offer the KWs clear functionality with a clear "what's in it for me"-value proposition in a fashion where knowledge sharing naturally occur as seen in the two Web 2.0 examples presented. With this approach to KMS design the KWs would be sharing knowledge, but not under that label. From a conceptual view it seemed that this sort of approach might in particular help in solving the problem of knowledge coordination (Sambamurthy & Subramani, 2005) by making it easier to find the right person for instance via profile pages or via a person's bookmarks. The research question was thus answered and based on this study it seems feasible to address the motivational-context of KWs at X-Corp by adopting Web 2.0 concepts and features as they may play an important part in a fitting system response.

11. LIMITATIONS AND VALIDITY

The data and conclusions that this paper is based on result from action research using qualitative methods, as such the conclusions are biased by my view upon it (Ghauri & Grønhaug, 2005; Kvale, 1996) . Another possible bias when applying a theoretical framework like Bitzer, rather than developing new categories from codification, is forcing premature closure of the issues being investigated (Saunders et al., 2007). However the studies undertaken at X-Corp spanned 9 months and also Bitzer's categories are coarsely grained. Finally, the interpretation of the data partly took place while still gathering data, thus early findings were validated with KWs at X-Corp through discussions.

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