# Managers' Perceptions of Social Software Use in the Workplace: Identifying the Benefits of Social Software and Emerging Patterns of its Use

Completed Research Paper

Archisman Majumdar Infosys Labs archisman majumdar@infosys.com S Krishna Indian Institute of Management Bangalore skrishna@iimb.ernet.in

Pernille Bjorn IT University of Copenhagen pbra@itu.dk

#### ABSTRACT

Adoption and use of social software within the organization is an area of interest for both industry and academia. Yet, studies examining how managers use these technologies and adapt them in their daily practice are very few. In this study, we interview selected managers, proficient with the use of such applications within the workplace. We explore their perspectives on the benefits of social software, and ways in which they use these tools within the workplace. Through in-depth analysis of semi-structured interviews, we identify information, communication, and organization benefits as the major benefits. Further, we identify emerging patterns in the social software behavior within the workplace such as managing of self-image, spatial, device, and temporal patterns in use.

#### Keywords

Web 2.0, Social Software, Qualitative Study, Social Media.

#### INTRODUCTION

Social software is emerging into the everyday practices of organization. In a 2011 McKinsey survey, 70 percent of the organizations surveyed said they were using social software (Bughuin, Byers and Chui, 2011). Interests in use of social software has become an important topic within IS research (Aral, Dellarocas and Godes, 2013; Parameswaran and Whinston, 2007). Nevertheless, few studies have tried to look beyond the initial adoption decisions to focus on continual usage of these technologies, their patterns of use, or the way they are modifying work practices. In this paper, we explore how these technologies are affecting work and how are people adapting such technologies in their daily work.

Towards this end, we interviewed reflective managers who are proficient with the use of social computing applications and who believe that they have implications for distributed work. The research question explored in the paper is *what are managers' perspectives on social software benefits and usage within the organization?* 

We investigated the research question by conducting ten in-depth interviews from eight different global organizations. We argue that the reasons managers perceive social software as relevant to their work relate to perceived *information*, *communication*, *and organization benefits*. Moreover, we identify *emerging patterns in the social software behavior* such as managing of self-image, spatial, device-dependent, and temporal patterns in use. We found that the role of new digital devices, such as smartphone and tablets, which provide ubiquitous access to social software, are affecting the adoption and usage of social software within organizations.

#### BACKGROUND

The usage of social software depends largely on the people's beliefs and attitudes to the technology and on ways in which they incorporate into their routines. Researchers studying social media use in organizations have drawn from a number of existing IS theories on adoption and use. Most of such studies have reported the need to modify some of these existing theories in the context of social media use (e.g. Hsu and Lin, 2008). The studies on the benefits of social also call for including additional model dimensions (e.g. Steinhu, Smolnik, and Hoppe, 2011).

While most of such studies deal with the initial adoption decision of using social media, social construction of technology holds that organizational change emerges out of an ongoing stream of social action in which people respond to the technologies constraints and affordances (Leonardi and Barley, 2010). Users are *social actors*, who often have conflicting and ambiguous requirements about the activities they perform (Lamb and Kling, 2003). How people interpret a technology strongly affects the way they will use it (Leonardi and Barley, 2010). Communication and collaboration technologies often exhibit a kind of openness in their use. The true nature and potential of such technologies manifest themselves depending on when and how people incorporate the technologies in their daily routines (Richter and Reimer, 2009). In particular, web 2.0 technologies rely heavily on creating and leveraging contributions from large user bases (Ganesh and Padmanabhuni, 2007). Thus, to understand the impacts of social media on organizations it is important to study the perceptions of its benefits and patterns in which it is actually being used in organizations.

The perceptions of constraints and affordances provided by a new technology often vary between different groups of users. While the top management may view the benefits and challenges in one way, the end-users and the middle managers may have their own perceptions about the technologies (Orlikowski and Gash, 1994). It is hence important to study the usage and perceptions about the technology at different levels in the organizations.

The numbers of papers focusing on middle managers using these technologies are considerably less. Yet, managers are the ones responsible for and deciding about the tool used in the teams, and assumes the role of gatekeepers. If they are unaware of an application, they may develop a dismissive attitude (Raeth and Smolnik, 2010). Thus, there is a clear need to explore the usage of these tools by practicing managers in the workplace.

Some researchers have explored the use of specific internal social computing tools (e.g. DiMicco, Millen, Geyer, Dugan, Brownholtz, Muller, and Street, 2008). Nevertheless, considering the constantly evolving nature of social computing tools and its uses, as well as the increasing overlap of personal and organizational usage of these tools (Majumdar and Krishna, 2012), it is essential for researchers to understand how employees use and perceive the benefits of both the internal and external social computing tools in their workplaces.

# **RESEARCH METHOD**

Following the traditions of 'theoretical sampling', we selected managers who were experienced with the use of social computing tools. We selected participants from an earlier empirical study on the use of social software (Majumdar and Krishna, 2012). We selected people for interviews who had indicated in the questionnaires that they had experiences in a) using such technologies at home, b) use some of these technologies for their daily work, and c) believe that usage of such tools have implications for distributed work.

We conducted semi-structured open-ended interviews to develop in-sights into how the interviewees describe their experiences with social software. We interviewed five practicing managers, each lasting for about one hour. The interviews were recorded after obtaining informed consent from the participants. Afterwards all the interviews were transcripted and analyzed using the software WeftQDA Version 1.0.1 for coding. The transcripts were coded using an open coding method. To ensure reliability and validity, the coding schemes were discussed among the researchers in detail. In the second round, to validate our findings, we interviewed five more employees. The profile of the interviews is shown in Table 1.

Interviewee	Role	Industry	Social Media Policy
LR	Project Manager	IT	Selectively allowed
AR	Head of Testing Services	Finance	Selectively allowed
MM	Manager Delivery Services	Retail	Encouraged
SB	Marketing Manager	IT	Mandatory
HM	Product Manager	IT	Enforced
LI	Manager	Social Media Analytics	Mandatory
BK	Founder	Social Media Analytics	Mandatory
DE	Marketing Manager	Social Media Analytics	Mandatory
SU	Founder	Education and Training	Mandatory
ST	Senior Engineer	IT - Banking	Blocked

## **Table 1 Participant Profiles**

# FINDINGS

The subcategories and categories, related to benefits and usage of social software, which emerged from our reading of the interview transcripts are shown in Table 2.

Category	Description	Subcategories
Benefits	The perceived and actual benefits derived by the users	Information
		Organization
		Communication
Usage	Patterns of use of social software by the users	Initial Adoption
		Behavior on Social Software Sites
		Temporal and Spatial Patterns
		Device Specific Patterns
		Management of Self-Image
		Managing Security and Privacy

#### **Benefits of Social Software**

In the course of our interviews, all the respondents explained how social software was relevant for their work. When analyzing our data we managed to group the different types of benefits into three sub-categories: Information benefits, organization benefits, and communication benefits. In this section, we provide some examples of these benefits.

*Information benefits* of social software comprise the benefits the user derives through the uses of web 2.0 technologies, leading to sharing of more information and ideas among the participants, sharing of existing knowledge, and identification of experts, among others. One of the essential benefits of social software was that people experienced the usage as a knowledge management tool. To exemplify:

One of the participants (HM) was managing a team in a software company and had to interact with the clients regularly. The team members often faced requests from the clients about the availability of new features in their products. To solve such tasks, it was critical that each team member be abreast of the features and use of the software. However, conventional knowledge management tools were not always able to support such dynamic updates. Below HM explains how social software was now supporting the knowledge exchange -

HM: "The way this is helping the presales and marketing sales people, is that somebody, would have done a deal in US and faced a particular issue, if someone in India posts a similar query, there will be 2-3 responses. Therefore, you are not reinventing the wheel every time. There will be someone who has gone through the grind of going and searching." (Interview HM, dated 28/01/2012)

Thus, instead of sending emails to particular people asking for help, the publicly available Q&A, maintained by socially embedded practices within the organization, was providing the employees with access to key information when needed. The organization was hence able to tap into their existing knowledge base in a non-intrusive manner. Moreover, the wiki was not a standardized Q&A, but was based on the in-use-practices of the technology. This gave the impression that it was people you asked and not standard questions, as in help-support text in programs. If someone had asked the questions previously, the answer would appear, however if it were a new type of question, the employees would simply post new questions. This practice of 'living' Q&A's supported the organization in identifying issues that the employees would frequently face. Regular contributions from others also ensured an increasing knowledge base for the organization.

The information benefit of social software was often explained as the benefit of broadcasting by the employees towards disseminating knowledge. One advantage, enabled by this new set of technologies, was to let the users act like editors. Thus, as one participant pointed out, users were able to act like *curators*, and filter content; broadcasting or re-broadcasting only what they found relevant.

SB: "I am publishing something on Facebook or any social media forum, it's like I am deciding, what is good quality for me, and showcasing it to the outside world. Therefore, in a way each person is like a curator, each person is acting like a curator in his or her domain... and if others appreciate that, they have a propensity to share again." (Interview SB, dated 28/01/2012)

In the above quote, we see how it is not anonymous responses to posted questions. Instead, it is the role of broadcasting and re-broadcasting with the aim of curating knowledge. Not only does this ensure verification of information quality, but it also provides a boost for the person doing the re-broadcasting. 'Getting followers' is viewed as a positive acknowledgement of the persons work and expertise. Rewarding contributors and creating such quality stamps are more difficult in traditional knowledge management tools. Thus, social software effectively solves some of these key challenges for knowledge management through interaction and personal engagement.

The respondents also reported on the role of microblogging and social network sites in the sharing of knowledge, through the sharing of links. While they were not able to post long articles, they were still able to provide brief descriptions about the articles and links to them. Online forums and social networking sites were also deemed particularly useful in finding experts, as well as people working on similar problems in other teams.

*Organization benefits* of the employees' use of social software comprised of the interactions of the employees with customers, finding information about the customers and competition, as well as about the general business environment and trends. Some of the respondents felt that 'businesses becoming social' was an imperative for most organizations since the competition was also in the social media space and sometimes monitoring it very closely.

HM reported how competitive firms were using free information available on the external social media in their presentations to potential customers. Another participant (SB) mentioned how social listening enabled the organizations to monitor the social media sites for posts relating to their products, organizations, competitors, markets and user. DE, a manager in a social media analytics firm, mentioned how social listening was central to their operations –

DE: "Listening to our brand is something we do on daily basis. It is carried out from CEO to CMO to everyone... Everyone is listening about our brand specifically and the communications of our interests. This goes on a daily basis." (Interview DE, dated 19/10/2012)

With greater access to social media at home, and an increasingly vocal customer base, ignoring social media messages is no longer a viable option any more for the companies.

The *communication benefits* of social media comprised of stronger social connections, providing alternate channels of communication, support for asynchronous communication, and the ability to find more information about people beyond face-to-face meetings. A frequent mention of such benefits related to the comparison of social software with emails and phones, regarded as the traditional forms of technology mediated communication channels.

One of the participants (AR) pointed out how social networks helped create stronger relationships between employees belonging to different groups. In the course of their work, her team would often need information from other teams. She was pleasantly surprised when during one such team meeting where they were discussing about whom to approach in another group for particular information, one of her team members came up and said he knew about the workings of the other group.

AR: "On Facebook relationship is changed because they know much more than just over the phone. Another example is of a person called SD; he is connected with other groups of TCompany, not just Tech support. So at work when it comes that we are having overlaps with that group or I do not know how the group functions, he will come and say, 'You know what? I know what they do in that team!' So he knows about their work related areas also. Initially they were just on chat. But now after Facebook, they are connected on Facebook also." (Interview AR, dated 17/01/2012)

Since SD was quite active on the internal social networking sites, he was able to get in touch with other employees of the organization. Regular interactions helped him in gaining more knowledge about the workings of other teams even when he was not directly involved.

HM pointed out how social networking sites enabled them to pre-check other meeting participants before a meeting. HM's job involved regular interactions with new clients. Having some background information on these new people was an advantage for her. This helped her in finding common ground and common connections more easily. While such information was not always easily available earlier, with the advent of social media sites, HM was able to check up their profiles on these sites.

*HM*: "I was meeting a lot of new customers. So they wanted me to do a background check before I went there and sat in front of them". (Interview HM, dated 28/01/2012)

This practice helped the participant pre-start relationship building by providing them with an opportunity to find out about the people they were meeting.

LR explained how the asynchronous capabilities of social software helped in her work. LR was working in a team which had members distributed across different time zones. The office hours overlapped for only some hours every day. Since people only responded to emails in the office hours, considerable time was spent waiting for the other people in the group to respond and provide updates. LR's team has recently found how the overlap of work and personal life in social media could be leveraged to handle such issues. Team members now connect with each other on external social networking sites. Hence, they are now able to provide simple updates over these external social networking sites. LR noted –

LR: "Earlier you had a group of emails... Now I see most of the meeting update or team updates are happening on Facebook. Facebook actually is eradicating that time difference. You have Facebook, people have access to it all the time, and they have it on their phone. So it is just a message away." (Interview LR, Dated 21/01/2012)

LR observed that members of the team were online on Facebook more often and outside work hours. This meant they could provide updates more frequently without having to be in their workplaces. While the team members were not expected to be continually logged in or work at all hours, if the updates were reasonably simple or urgent they were able to provide them over social networking sites on a personal basis.

Both the above tasks were possible using emails or forums. However, with the advent of a new set of mobile devices like smartphone and tablets, people have started using them in a ubiquitous manner. This kind of spatial and temporal independence have provided users with new opportunities. The use of these devices has resulted in benefits for communication even within the workplace. Other benefits included moving "*information out the email box*" helping participants get fewer and more relevant emails.

The list of benefits is shown in Table 3.

Benefits of Social Software			
Searching for information			
Broadcasting information			
Searching for experts			
Expressing opinion			
Exchanging ideas			
Gaining knowledge			
Access to better quality information			
Information about customers			
Information about competitors			
Interactions with customers			
Checking profiles prior to meeting people			
Communicating with people in same location			
Communicating across time zones			
Developing better personal relations			
Forming Weak Links			
Information about own organization			
Relaxing at work			

## **Usage Patterns of Social Software**

To promote the effective use of social software, it is necessary to understand the current usage of such tools. This section reports some of the different patterns of use we observed among the managers. *Temporal patterns* refer to *when* social software were accessed within the workplace. Accessing social software had become a routine for some. MM told us that using accessing social software was one of the first things he did during his day, 'even before breakfast'. While, HM narrated to us how she would routinely check the different social software sites, both internal and external.

*HM*: "I spent the first one hour going on twitter... I spend one hour very religiously looking at what they posted, all their tweets and links... Post lunch I spend at least one hour on chatter." (Interview HM, dated 28/01/2012)

HM explained to us, how she had made checking and updating these sites a part of her daily routine. Still, for some others, this was an activity to be done when you had 'some free time'.

We also observed changes in the *spatial pattern* of access to the software. With the advent of a new set of lightweight devices, like smartphone, tablets and mobile phones, it was easier for the users to stay connected to these sites from anywhere. Users no longer had to wait to get to the office, arrange her laptop and then check the updates. These, we believe is resulting in *device specific patterns* of use. The blurring of work and personal lives is an immediate implication of such usage patterns.

AR narrated to us why she was fond of this development.

*AR*: "With these new things like the tablet and the smartphone, they don't give the feeling of being at work. It is more of personal time. So, using that in your personal time and then going to Facebook, is giving the idea of personal time. And then I am able to do a lot more actively that." (Interview AR dated 18/01/2012)

Like many other users, AR associated 'personal time' with these devices. Hence, she felt more relaxed while accessing even work related sites over these devices. Consequently, her behavior in these sites was also changing. She was 'more active' on these sites now. Thus, the devices and applications also played a very important role in the way these sites were accessed and used. These were leading to differences in the way people communicated, how long they were able to stay connected, from where, as well as the way they felt when connected.

There was also an overlap in the use of social software between work and personal lives. These resulted in modified *behavior patterns* on such sites. The participants were particularly conscious about their behavior on such sites. They made conscious choices about whom they allowed access to in their social media profiles at work.

Further, users often developed unspoken norms about behavior on such sites. MM was connected to many of his colleagues on external social media sites. According to MM they often had a tacit understanding about the kind of expected behavior on such sites.

*MM*: "There is a kind of understanding that 'what I say on Facebook is to stay on Facebook'. Therefore, they comment but they will not comment outside Facebook... We don't talk Facebook at work." (Interview MM, dated 21/01/2012)

While MM would not hesitate to add people to his network, he also told us how he would use the group / list features available in many of the social software tools to limit access to information and ensure *security and privacy*.

Managing one's *self image* was an important aspect of the behavior of the participants on these sites. Another complicating aspect of the behavior on such sites was the result of the participant being an ambassador for her company on the social media sites.

HM: "If I am on twitter as a BCompany person, I need to behave; I cannot post internal documents on twitter. Second, I need to behave as a BCompany ambassador, I cannot appreciate a competitor, or I cannot say this one said this about us. I cannot retweet posts about film actors. Today I feel like doing this, doing that." (Interview HM, dated 28/01/2012)

In the microblogging sites, other people often chose to follow your messages. For HM, her followers included many people from her organization, her competitors, as well as other people who were engaged in the same area of work. In other words, there were many professional 'followers' of her tweets. Hence, she had developed certain professional rules for her behavior on these sites.

# DISCUSSIONS

From our analysis of the interview transcripts, we found that managers perceived different kinds of benefits and challenges to the use of Social Software. *Benefits* of social software have in the previous literature been conceptualized to be consisting of a number of dimensions (Ali-Hassan and Nevo, 2009). Our definition adds to this and provides concrete empirical examples of information benefits in daily practice.

Majority of the earlier studies have investigated these benefits of social software, motivated by the capabilities of the tool. Nevertheless, the gap between capabilities and their realization are often very large. For social software it is especially important to understand the user's perspectives. Sine many of the perceived benefits of social software are motivated at a "personal level", there is a need for re-conceptualization of the usefulness construct (Soliman and Beaudry, 2010). Informal communication with people at work can lead to the acquisition of valuable information (Zhao and Rosson, 2009), building a distributed organizational knowledge base (Brzozowski, 2009), as well as increased social capital (Steinfield, DiMicco, Ellison and Lampe, 2009). These emerged as some of the primary informational benefits of social computing tools. Through examples and an interpretive analysis, this study extends our understanding of such benefits. These examples can serve as a basis for future empirical studies to explain the adoption, benefit, and use of social software in organizations.

Analysis of the usage patterns reveal social influence, emergent norms, and task technology fit (Goodhue and Thompson, 1995), are also vital considerations for the users. Finally, the participants also mentioned a number of challenges that they presently face in the use of these software. Managing one's self image, security and privacy (Hu and Ma 2010), and the awareness of being watched (Bente and Karla, 2009) were some of the major concerns we evidenced in the interviews.

The usage patterns of social software were largely influenced by the development of a new set of devices, availability of faster networks, and overlap in the use of the software across different social circles and settings. Thus, instead of relying solely on the features of technology or social action, we believe, that to understand the usage of this new set of tools, it is important to acknowledge the role of both the social and material aspects of the technologies, to understand its appropriation and usage in organizations (Orlikowski and Scott, 2008; Thambusamy and Nemati, 2011).

Understanding the perception of benefits and the usage of such tools is hence essential for business use of social software. Our interviews revealed a number of benefits for the organizations in using social software. These findings can serve as a guide for managers wishing to exploit the potential benefits and develop policies that are more efficient.

## CONCLUSION

Our goal in this article was to provide a brief description of how managers are using social media in their daily work. Through exploratory interviews, we have attempted to narrate how managers perceive these benefits and ways in which they are using them. In doing so, we have gone beyond simply providing a list of possible benefits or use patterns. Instead, we believe that the evidence presented here, draws a picture of how managers use social software in the workplace. These can serve as a background for starting more empirical and qualitative studies on the use of social software in organizations.

## REFERENCES

- 1. Ali-Hassan, H. and Nevo, D. (2009) Identifying Social Computing Dimensions: A Multidimensional Scaling Study, *Proceedings of the 30th International Conference on Information Systems*, Paper 148.
- 2. Aral, S., Dellarocas, C. and Godes, D. (2013) Introduction to the Special Issue—Social Media and Business Transformation: A Framework for Research. *Information Systems Research*, 24, 1, 3-13.
- 3. Bente, S. and Karla, J. (2009) Enterprise Social Network Platforms as a Managment Tool in Complex Technical Systems, *Proceedings of the 15th Americas Conference on Information Systems*, Paper 545.
- 4. Brzozowski, M. J. (2009) WaterCooler : Exploring an Organization through Enterprise Social Media Categories and Subject Descriptors, *Proceedings of the ACM 2009 international conference on Supporting group work*, pp. 219-228.
- 5. Bughuin, J., Byers, A. and Chui M. (2011) How Social technologies are extending the enterprise, *The McKinsey Quarterly*, November, 1-10.
- Dimicco, J., Millen, D. R., Geyer, W., Dugan, C., Brownholtz, B., Muller, M. and Street, R. (2008) Motivations for Social Networking at Work, *Proceedings of the 2008 ACM conference on Computer supported cooperative work*, pp. 711–720.
- 7. Ganesh, J. and Srinivas, P. (2007) Web 2.0: Conceptual Framework and Research Directions, *Proceedings of the 13th Americas Conference on Information Systems*, Paper 332

- 8. Goodhue, D. L. and Thompson, R. L. (1995) Task-Technology Fit and Individual Performance, *MIS Quarterly*, 19, 2, 213–236.
- 9. Hsu, C.L. and Lin, J.C.C. (2008) Acceptance of Blog Usage: The Roles of Technology Acceptance, Social Influence and Knowledge Sharing Motivation, *Information & Management*, 45, 1, 65–74.
- Hu, Q. and Ma, S. (2010) Does Privacy Still Matter in the Era of Web 2.0? A Qualitative Study of User Behavior Towards Online Social Networking Activities, *Proceedings of the 15<sup>th</sup> Pacific Asia Conference on Information Systems*, Paper 2.
- 11. Lamb, R. and Kling, R. (2003) Reconceptualizing Users as Social Actors in Information Systems Research, *MIS Quarterly*, 27, 2, 197–236.
- 12. Leonardi, P. M. and Barley, S. R. (2010) What's Under Construction Here? Social Action, Materiality, and Power in Constructivist Studies of Technology and Organizing, *The Academy of Management Annals*, 4, 1, 1–51.
- 13. Majumdar, A. and Krishna, S. (2012) Empirical Analysis of Web 2.0 Implications on Collaborative Tool Usage and Team Interactions in Virtual Teams, *Proceedings of the 18th Americas Conference on Information Systems*, Paper 9.
- 14. Orlikowski, W. J. and Gash, D. C. (1994) Technological Frames: Making Sense of Information Technology in Organizations, ACM Transactions on Information Systems (TOIS), 12, 2, 174–207.
- 15. Orlikowski, W. J. and Scott, S. V. (2008) Sociomateriality: Challenging the Separation of Technology, Work and Organization, *The Academy of Management Annals*, 2, 1, 433–474.
- 16. Parameswaran, M. and Whinston, A. B (2007) Research Issues in Social Computing, *Journal of the Association for Information Systems*, 8, 6, 336–350.
- 17. Raeth, P. and Smolnik, S. (2010) Antecedents and Consequences of Corporate Weblog Usage in the Intranet: A Process Perspective, *Proceedings of the 43rd Hawaii International Conference on System Sciences*, 1–10.
- 18. Richter, Alexander, and Riemer. (2009) Corporate Social Networking Sites-Modes of Use and Appropriation through Co-Evolution, *Proceedings of the 20th Australasian Conference on Information Systems*, Paper 34.
- 19. Soliman, M.A. and Beaudry, A. (2010) Understanding Individual Adoption and Use of Social Computing: a User-System Fit Model and Empirical Study, *Proceedings of the 31st International Conference on Information Systems. Paper* 22.
- 20. Steinfield, C., DiMicco, J.M., Ellison, N.B. and Lampe, C. (2009) Bowling Online: Social Networking and Social Capital within the Organization, *Proceedings of the fourth international conference on Communities and technologies*, June 25-27, 2009, University Park, PA, USA.
- 21. Steinhu, M., Smolnik, S. and Hoppe, U. (2011) Towards a Measurement Model of Corporate Social Software Success Evidences from an Exploratory Multiple Case Study, *Proceedings of the 44th Hawaii International Conference on System Sciences*, pp. 1–10.
- 22. Thambusamy, R. and Nemati, H. (2011) A Sociomateriality Practice Perspective of Online Social Networking, *Proceedings of the 32nd International Conference on Information Systems*, Paper 27.
- 23. Zhao, D. and Rosson, M. B. (2009) How and Why People Twitter: The Role that Micro-blogging Plays in Informal Communication at Work, *Proceedings of the ACM 2009 International Conference on Supporting Group Work*, 243–252.