OASIS IFIP8.2 WORKSHOP PROGRAMME - ICIS pre-event
Saturday 13th December 2008
Paris, Hotel Le Meridien

	MEETING ROOM 1 - AUTEUIL	MEETING ROOM 2 - VINCENNES
8h45-9h15	**BREAKFAST COFFEE**	
9h15-10h30	**SESSION Emergent Business Models CHAIR Niki Panteli**	**SESSION IS Development of Virtual Environments CHAIR K. McGrath**
9h15-9h30	ALLEYNE and HOCKEMA Expertise networks: a framework for intra, inter and global knowledge sharing in professional service organisations	VERHING and RIEMER Developing and validating a method for supporting media choice based on genre analysis
9h30-9h45	MCLAREN Understanding the need for flexibility in supply chain management IS	KYRIAKIDOU and VENTERS Distributed development of large-scale global systems: exploring the collaborative practices of particle physicists as they develop a grid for the Large Hadron Collider
9h45-10h	HSU and LIN Making sense of the slow adoption of Straight-Through-Processing technology: the case of Taiwan Mutual Fund industry	ROSS Institutional ethnography: a method of inquiry for researching participation in IS development
10h-10h15	KUDE, DIBBERN and HEINZL The emergence of partnership networks in the enterprise application systems industry: the perspective of small and medium sized players	MIHAILESCU and MIHAELESCU The contextualisation of an IS artefact: a synthetic framework grounded on a critical realist perspective on the development and deployment of IS development methodology
10h15-10h30	NIKOLYCHUK and ABBOTT ICT-enabled organisational change: exploring emerging collaborative (business) models in the UK independent television and film sectors	SCHELLHAMMER Theorizing the IT artefact in interorganisational information systems
10h30-11h	**COFFEE BREAK**	
11h-12h	**SESSION The Local and the Global CHAIR Nathalie Mitev**	**SESSION Web 2.0 CHAIR Niki Panteli**
11h-11h15	JERRAM Australian HRIS issues: local or global?	BAKA and SCOTT Web 2.0 and user generated content websites
11h15-11h30	METTGENBERG Making a cosmopolitan? International employees in 21st century India	LEW and SCHEEPERS Implementation of Enterprise 2.0 and its value in organisations
11h30-11h45	BARTIS Workarounds: users'solutions between successful and failed information systems	BURTON SWANSON and GORGEON Organising the vision for Web 2.0: a study of the evolution of the concept in Wikipedia
11h45-12h	SIMEUNOVIC, NESKOVIC and RUSSO The impact of IT on the globalization of work, society and education in Bosnia and Herzegovina	VON KORTZFLEISCH and SCHAARSCHMIDT Web 2.0 enabled self-organised innovation networks of small and medium sized enterprises for day-to-day work life problem solutions

12h-13h	**LUNCH**	
13h-14h	**SESSION ERP CHAIR Kathy McGrath**	**SESSION Blogs CHAIR Niki Panteli**
13h-13h15	MALAURENT The introduction of ERP systems for foreign firms in China: from global worldwide templates to local instances	BOHORQUEZ and ESTEVES Towards the analysis of the effect of blogs and online communities on business innovation
13h15-13h30	VUOKKO, FORSELL and KARSTEN Organisational implementation in crisis: 104 issues in EPR implementation	PLUEMPAVARN Communities of practice: trajectories and social identities through blogging
13h30-13h45	POLLOCK, WILLIAMS, D'ADDERIO and GRIMM Extended situations and virtualised forms of technical support	KAKIHARA From click stream to action stream: exploring Web user behaviour from a real-world perspective
13h45-14h	SUTANTO, KANKANHALLI and YAN The effects of OSS community network configuration on OSS use success	MIGNERAT and MIRABEAU Towards new models of collective strategy: blogs as a strategic tool
14h-14h30	**COFFEE BREAK**	
14h30-15h45	**SESSION Virtual environments, power and politics CHAIR Mitev**	**SESSION Globalization and Organizational Change CHAIR K McGrath**
14h30-14h45	YAN and PANTELI Articulation and negotiation of power in virtual environments	SORENSEN Unpacking ubiquity: interaction symmetry and asymmetry at work
14h45-15h	SHIRAZI Measuring e-democracy opportunities: a global perspective	BERNARD and GALLUPE IT-enabled transparency: assumptions, explanations and key questions concerning a central IS and organisational concept
15h-15h15	HERCHEUI From democratic spaces to the electronic panopticon: a Foucauldian analysis on how virtual interactions may support disciplinary power	PEKKOLA Innovations, IS departments, organisations and society
15h15-15h30	HOUIJ-GUEDDANA Investigating the relationship between collective action and technological innovations in the context of the microfinance movement	GAL, BAXTER and BERENTE The interplay of IT and aesthetic elements of organizing
15h30-15h45		
16h-17h	**IFIP 8.2 MEETING**	

"Organizing the Vision for Web 2.0: A Study of the Evolution of the Concept in Wikipedia"

E. Burton Swanson and Arnaud Gorgeon
UCLA Anderson School of Management, USA

Information Systems (IS) innovations are often characterized by buzzwords, reflecting an *organizing vision* that structures and expresses the images and ideas formed by a wide community of users about the meaning and purpose of innovations. IS empirical research on how such organizing visions are constructed over time is still scarce but necessary to our understanding of how the institutional environment shapes the diffusion and adoption of IS innovations.

In this research in progress, we look at the term *Web 2.0*, a buzzword that has become popular since the first O'Reilly Media Web 2.0 conference in 2004. The term Web 2.0 has many definitions, but it can be broadly characterized by a changing trend in the use of the World Wide Web technology and Web design. Under the title Web 2.0 fall a number of innovations such as social-networking sites, blogs, folksonomies and wikis such as Wikipedia. The term Web 2.0 is now part of the discourse of a broad community, including decision and policy makers, consultants, media professionals, and academics. Although such a usage may reflect a common understanding of what Web 2.0 means, the question of how such a concept came to life and evolved since its first use remains unknown.

In this research we address this challenging question looking at the Wikipedia entry for Web 2.0. More precisely, we aim to answer the following questions: How did the Wikipedia community construct the Web 2.0 concept over time? Who are the members of this community?

What are their roles and behaviors? How did the content of the Web 2.0 page evolve and why?

Our motivation to choose Wikipedia as the object of study was twofold. First Wikipedia is an instance of Web 2.0 applications, and since its creation in 2001, Wikipedia has grown into one of the largest reference Web sites.

To answer our questions, we looked at the evolution of the Web 2.0 entry in Wikipedia over three years, from the first entry in March 2005 until February 2008, importing the page edits history for these three years from Wikipedia. To gain deeper insight into the dynamics of the construction of the Web 2.0 concept, we also analyzed the Talk pages, a place where contributors discuss and argue ideas, resolve disagreements, etc. These pages allowed to peek at the debates, sometimes raging, that went on behind the scene over how to define the Web 2.0 concept, what references should be used to support its definition, and its origin to mention but a few. We also searched the business articles database EBSCO for articles containing the term Web 2.0 either in the title of the articles or in the body of the texts to gain a feel for the popularity of its usage.

Preliminary results of our analyses provide interesting insights into the evolution of the Web 2.0 concept over time, and the dynamics and constitution of the community who

contributed to the Web 2.0 page. Over the study period, the page was edited 3,665 times, the content of the page growing from a small entry containing 640 characters to a fully developed page containing over 28,000 characters. Contributors to the Web 2.0 entry were found to be of different types: administrators who have special editing rights (99 in total) registered users (540 in total), anonymous users (1,126 in total) and robots which perform automated tasks (12), for a grand total of 1,777. Registered users and administrators were the most active contributors to the content of the Web 2.0 page. The community of contributors was found to be rather transient (most individuals contributed only for short period of time) and constituted of a small active core group complemented by a large group of sporadic contributors.

We identified four major periods in the evolution of the Web 2.0 concept: seeding, germination, growth and maturity. During the first phase, seeding (0 to 7 months after the first entry), the concept develops slowly, mostly underground, with few contributors involved. During the second phase (8 to 23 months), germination, the concept becomes more visible attracting more contributors. At this stage, however, Web 2.0 remains only a vague sketch of what it will develop into. The next phase, growth (24 to 30 months), is the most active period of development. The Web 2.0 page gains a firm structure, and sees the biggest number of contributors. During this phase, weeding out vandalism becomes a major activity. In the last phase (31-36 months), maturity, a consensus appeared to have been reached over the meaning of the term Web 2.0. In this phase, fewer contributors are active, mostly pruning a now fully developed concept.

Measuring E-Democracy Opportunities: A Global Perspective

Farid Shirazi
Institute for Research on Innovation and Technology Management
Ted Rogers School of Management, Ryerson University, Toronto, Canada
f2shiraz@ryerson.ca

Abstract

In recent years, several case studies have been appeared illustrating the impact of mobile telephones, SMS and the Internet on political activities (Ferdinand 2000; Ghashghai and Lewis, 2002; Kalathil et al. 2003). While it has been widely argued that Information and Communication Technology (ICT) is influencing democracy all over the world (Sussman, 1997; Bennett & Fielding, 2001; Bimber, 2001), there has been limited analysis of how ICT expansion correlates with measures of democracy. This paper response to a gap in the literature and proposes a method to empirically measure opportunities for e-democracy on a global scale.

This paper investigates the relationship between the global expansion of ICTs and the current degree of e-democracy within each nation. This research adapts the conceptual model of e-democracy developed by Clift (2003) to construct an index of e-democracy opportunities among 146 nations for the period of 1995 to 2005. In this model, e-democracy is defined as the use of ICTs and strategies by democratic actors within the political processes of local communities, states or regions, nations and international bodies on the global stage.

The e-democracy conceptual model consists of six major components: ICT infrastructure, e-citizens, e-government, civil society, media and the private sector.

At the heart of this model are e-citizens, individuals who use ICTs to participate in democratization. This participation can take many different forms. For example, e-citizens can use ICTs to not only interact with other actors but also create and disseminate information and demand a more open and democratic society.

In this model, government is represented by e-government, which provides citizens, civil society, private sector and media extensive access to electronic information to support the functions that a government performs (Lenihan, 2002). The civil society includes NGOs, women's rights activists, human rights and environmental activists, political parties and organizations and minority groups who use ICTs extensively to promote their agenda as well as influence decision making bodies and actively participate in the decision making process. The potential for linking e-democracy in a civil society with e-government at the level of the local, national and global state is far from straightforward but nevertheless achievable.

Another important component of e-democracy is the media, as access to information is essential to sustaining democracy. In some societies, an antagonistic relationship between media and government represents a vital and healthy element of fully functioning democracies (CDG, 1999). ICTs provide a new medium of mass communication, including search engines, websites, and social networking sites which play a crucial role in providing news and online information to other parties in the model. Finally, in this model, the private sector not only represents commercially driven connectivity, software

and technology and its vital participation in e-commerce activities, it is also the main provider of ICT and key player in ICT development.

As is always the case, adaptations must be made in moving from the conceptual purity of the concepts to an empirically applied modeling exercise. Any model fit will inevitably be an approximation of the framework (Orbicom 2005).
The empirical application in this research is based on an indicators model in which individual indicators derived from the raw data. Some variables such as Political Rights, Civil Liberties and ICT are composite indicators constructed to come closer to conceptual model and represent accurately components of e-democracy. Before constructing the index of e-democracy opportunity which is an aggregation of variables such as ICT, Political Rights, Civil Liberties, Press Freedom and Economic Freedom indexes the model was tested to identify the linear relationship between variables and ensure that problems such as multicollineratity and heteroskedasticity among variables are addressed.

This paper analyzes archival data of 146 countries from 1995-2006, a period of explosive ICT expansion across the globe. Some important findings of this study are: (a) there is a growing digital divide in democratic freedoms among countries; (b) in spite of rapid ICT expansion in some countries and in particular Middle East, e-democracy is yet a dysfunctional paradigm among various actors.

Keywords: Civil Liberties, E-democracy**,** Economic Freedom, Digital Divide, Gender Divide, ICT, Press Freedom, Political Rights.

Web 2.0 and user generated content websites

Vasiliki BAKA, V. Baka@lse.ac.uk

Susan SCOTT, s.v.scott@lse.ac.uk

London School of Economics, UK

Abstract

How do Web 2.0, and in particular User Generated Content websites, differ from other virtual communities? Social commentators claim that social media emerging in the Web 2.0 environment open up new horizons for the information systems community and present us with distinctive challenges. Benkler maintains that they represent a deep structural change brought about by the networked information environment (2006, p.1). In a recent academic paper, Dellarocas (2003) says that social media, such as User-Generated Content websites, have moved from being a future challenge to a substantive current issue for organizations. How then, is the uptake of seemingly ingenuous opportunities for everyday people to exchange experiences over the Internet reconfiguring boundaries and recombining organizational knowledge? What are the implications for information systems strategy formation and processes or organizing?

Web 2.0 is the evolution of broadcasting media to a participatory form where users contribute their knowledge and personal view to a common universal collage simultaneously becoming both designer and publisher. We are witnessing "…the evolution of the web from a read-mostly medium to a read-write, or two-way medium" (Rumgay 2007) [with] "the potential to create arenas for more voices than any other previous communication medium" (Hargittai 2000). Social media, as the dominant term in the Web 2.0 context suggests, emphasizes the central role of computer-mediated peer-to-peer interaction. Although it may still be regarded as an emerging environment, peer-produced social media has become so pervasive that people often refer to Wikipedia, Facebook, Flickr, Second Life and YouTube content in the vernacular without the necessity for further clarification.

Virtual communities have been analyzed by a wide variety of disciplines and portrayed as an important, distinctive and sometimes even mysterious social space (Preece and Maloney-Krichmar 2005; Ward 1999). The whole Web 2.0 concept can be considered as a huge virtual community where users can choose the degree of participation and interaction that they want with others. In addition to its defining characteristic of peer-production, social media is distinctive because unlike other community forms participants are rarely restricted by any other rules or limitations. On the contrary, it represents a conscious challenge to the imagination and creativity of its participants who may draw upon any form of media ranging from video, wikis, blogs, recommendations, social

5

networking, fora, and message boards. The most important aspect of User Generated Content – (known by the acronym UGC) is on the one hand its dynamic collective intelligence and on the other a collaborative logic that combines a user-generated collage.

While User-Generated-Content, is the subject of everyday conversation few scholars have dissected it as a topic or delved into its implications as a new business model on the organizations, the economy and the society in general. The aim of this research project is to contribute to the current state of understanding social media by analyzing its dimensions, its boundaries and the underpinning connotations and building on this to ground a basis for what is to be expected in the future.

References

Benkler, Y. The Wealth of Networks: How Social Production Transforms Markets and Freedom. New Haven: Yale University Press, 2006.

Dellarocas, C. "The Digitization of Word of Mouth: Promise and Challenges of Online Feedback Mechanisms," Management Science (49:10), 2003, pp 1407-1424.

Hargittai, E. "Open Portals or Closed Gates? Channeling Content on the World Wide Web," Poetics (27:4), 2000, pp 233-253.

Preece, J., and Maloney-Krichmar, D. 2005. "Online Communities: Design, Theory, and Practice" Retrieved 20/4, 2008

Rumgay, I. 2007. "About Hotel 2.0 & Travel 2.0 - Interview With Ian Rumgay from Tripadvisor" available at: http://passionpr.typepad.com/tourism/2007/04/hotel_20_travel.html.

Ward, K.J. "Cyber Ethnography and the Emergence of the Virtually New Community," Journal of Information Technology (14:1), 1999, pp 95-105.

ARTICULATION AND NEGOTIATION OF POWER IN VIRTUAL ENVIRONMENTS

Lin YAN, Greenwich Business School, UK, L.Yan@gre.ac.uk
Niki PANTELI, Bath University Management School, UK, n.Panteli@bath.ac.uk

Abstract

While much has been debated on various issues in virtual environments, we found the issue of power to be under-discussed. In particular, despite the seminal work on related topics, such as trust, attribution, conflicts, and empathy, the issue of power has not been directly tackled, nor well articulated, in the virtuality literature. We contend that a direct analysis of power is important, as power constitutes an essential element in team and organisation interactions. Without power, organisations simply do not exist.

In contrast to the paucity in the virtuality literature, power has been extensively investigated in 'traditional' collocated settings. Inspired by the concepts of resource- and identity-based power in traditional organisations, we conducted an exploratory study on power in a virtual organisation. We aimed to address two questions:
1. How is power articulated in the 'lean' and 'mean' virtual setting?
2. Does power in a virtual setting require different conceptualisation from 'traditional' power?

The method in this paper was a single case study. Acknowledging the methodological strengths and weaknesses, we present a longitudinal study in a young and small international consulting company. Alfa Ltd. (a pseudonym) was chosen as the research site due to its geographically dispersion, multiple layers of membership, and concentration in the 'knowledge' sector – some major characteristics of virtual organisations.

We conducted observations and semi- and un-structured interviews over a period of 14 months. During this time, we traced the interactions between geographically dispersed individuals and their central office. These virtual interactions revealed various power relations in this virtual setting. We termed these as 'asserting power', 'complying with power', 'negotiating power', and 'resisting power'.

Although these power relations are not new in the 'traditional' power literature, our study illustrated them in a virtual setting. The first contribution of the paper is, therefore, mainly descriptive, namely, providing a 'thick description' of how power is articulated in a virtual setting. Second, this paper raised the importance of power in virtual settings, a topic that has been under-explored in the virtuality literature. Finally, based on the thick description of power articulation in the case, we discuss the connections and disconnection between virtual power and power in the traditional literature. We call for the re-thinking of 'scarce resources' in virtual power, a constructive view of identity-based of virtual power, and a transformation from 'shared identity' to 'sharing identity' in virtual organizing.
Keywords: power, virtual organizing, resource-dependency, identity

THE EFFECTS OF OSS COMMUNITY NETWORK CONFIGURATION ON OSS USE SUCCESS

Juliana SUTANTO, ETH Zurich, Switzerland

Bernard TAN, National University of Singapore

Atreyi Kankanhalli, National University of Singapore

Extended Abstract

In recent years, Open Source Software (OSS) has become common with hundreds of thousands of projects registered on Sourceforge.net, and many companies involved in OSS (e.g. IBM, Dell, HP, Oracle) (Gallivan 2001). Despite the widespread prevalence of OSS, there are more unsuccessful than successful projects (Crowston et al. 2006). This prompts researchers to investigate factors that could increase OSS projects' success rate.

OSS projects' success is reflected by OSS developers' effectiveness (creation success) and OSS popularity (use success). While OSS creation success is measured by the rate of task completion and bugs fixing, OSS use success is indicated by the number of downloads and page views. Among team- and individual-level factors, trust and developers' competency are found to affect OSS creation success (Crowston and Scozzi 2002, Stewart and Gosain 2006), which may increase OSS use (Crowston et al. 2006). This study adds to OSS literature by examining community-level factors that may influence OSS use.

To maintain or increase OSS use, it is important for OSS community to effectively deliver user support. User support involves the provision of assistance to users having difficulties with the software either due to its defects or the state of the user's own understanding (Lakhani and von Hippel 2003). In contrast to commercial software, in OSS both developers and active users may provide answers to the questions posted by other users in the community discussion forum. Thus, the delivery of user support in OSS is often a community effort.

To examine the way in which such community level help can be facilitated, this study draws from structural social capital theory. Structural social capital refers to overall pattern of connections between community members which makes possible the realization of collaborative actions such as knowledge sharing that can only be achieved at extra 'cost' without it (Nahapiet and Ghoshal 2005). We expect the pattern of connections or network configuration of OSS community discussion forum to influence OSS use. Two properties of network configuration, betweenness and in-degree centralization, may influence the flexibility and ease of information exchange for user support through community members' level of contact and relationships. High betweenness centralization indicates a centralized control of the information flow in the network, whereas high in-degree centralization indicates unequal incoming information among the individuals in the network.

Testing the model with a sample of 192 OSS projects from Sourceforge.net, the study shows that OSS community's betweenness centralization is positively related to OSS use success. The existence of a few members to bridge support requests to more knowledgeable members (high betweenness centralization) leads to effective user support which increases OSS use. In contrast, OSS community's in-degree centralization has a negative quadratic relationship with OSS use success. When other members always refer to a particular individual for support (high in-degree centralization), he/she may experience information overload and thus ignore some enquires hoping that others will eventually address them. When members always broadcast their support requests (low in-degree centralization), either no member feels

responsible to answer the questions or many members may respond. Both situations lead to ineffective user support which negatively affects OSS use.

References

Crowston, K., Howison, J. and Annabi, H. "Information Systems Success in Free and Open Source Software Development: Theory and Measures," *Software Process Improvement and Practice* (11:2), 2006, pp. 123-148.

Crowston K. and Scozzi B. "Open Source Software Projects as Virtual Organizations: Competency Rallying for Software Development," *IEE Proceedings Software* (149:1), 2002, pp. 3–17.

Gallivan, M. J. "Striking a Balance between Trust and Control in a Virtual Organization: A Content Analysis of Open Source Software Case Studies," *Information Systems Journal* (11:4), 2001, pp. 277-304.

Lakhani, K. R. and von Hippel, E. "How open source software works: free user-to-user assistance," *Research Policy* (32:6), 2003, pp. 923-943.

Nahapiet, J. and Ghoshal, S. "Social Capital, Intellectual Capital, and the Organizational Advantages," in *Sumantra Ghoshal on Management: A Force for Good*, J. Birkinshaw and G. Piramal (eds.), 2005, Prentice Hall, pp. 251-280.

Stewart, K. J. and Gosain, S. "The Impact of Ideology on Effectiveness in Open Source Software Development Teams," *MIS Quarterly* (30:2), June 2006, pp. 291 – 314.

Workarounds: Users' Solutions Between Successful and Failed Information Systems

Eszter Bartis
Budapest Corvinus University, Hungary

Vast amounts are spent on information systems in all sectors while their failure rate remains alarmingly high. Numerous scholars using several approaches have been trying to identify success factors or reveal reasons for failures hoping to help decision makers and improve the situation. Finding only a low proportion of fully successful cases (16%, according to the Standish Group's survey, Standish Group, 2001) and considering that only a few system introductions are halted (Smith and Keil, 2003, Tan et al. 2003) the question evolves towards: what happens in those projects which are neither fully successful or ceased. Keil (1995) discusses project escalation, but a major proportion of information systems are indeed introduced, the project phase is completed and the system is expected to be ready to use by the enrolled users.

My research, based on Gasser's (1986) pioneering work, aims at discovering what users really do with the systems if they, for any reason, are not able to execute their tasks by using the available functions of the information system provided. Gasser handles as a fact that systems are not flexible enough to support the daily work of the users (he labels this phenomenon as "ubiquity of anomaly: ibid: p212). Gasser describes three different microlevel processes (p216) of what users develop to overcome these difficulties: (1) 'Fitting', i.e. when changes are made to computer arrangements or work schedules or arrangements are adjusted; (2) 'Augmenting', meaning the undertaking of additional work to solve the given difficulty and (3) 'Working Around', defined as "intentionally using computing in ways for which it was not designed or avoiding its use ad relying on alternative means of accomplishing work" (Gasser, 1986: p216).
In my research definition, I include all these three sub-cases as part of workarounds and I define the phenomenon as:

> *Workarounds are practices complementing or avoiding the computer system, which are not part of the planned process, and are informally developed by users to fulfil their tasks.*

My research objective is to describe workarounds in more detail and attempt to analyse and classify them. The questions I aim to answer inquire about the (1) subjective or objective nature of workarounds; (2) whether and in which cases are workarounds (a) individual initiatives, or (b) local group level solutions, or even (c) reach over local groups and involve distant co-operators across space and time. Also I aim to (3) reveal if and when workarounds provide short term solutions or whether they calcify over time (Petrides et al. 2005). I will evaluate the research data from a managerial and user perspective and (4) formulate cases when a workaround is beneficial and when it is harmful.

My research is being conducted in two separate companies to be able to gain data which is independent of a single organizational culture. Both companies are Hungarian sites of a large multi-national company, one with American management, the other with headquarters in Sweden. In both cases the information systems examined are large ERP systems, introduced and maintained centrally. Data collection methodology includes participant observation and semi-structured interviews over a 6 months period at both research sites.

The Introduction of ERP Systems by Foreign Firms in China: From Global Worldwide Templates to Local Instances

Julien MALAURENT

ESSEC Business School, France

Abstract

ERP systems are at the centre of the strategic issues for most international companies. Due to globalization, general managers put pressure on IS departments to set up a consistent IS, at a global level, in order to control and manage all the company processes through the different branches and plants of the company. ERP systems are seen to be a suitable IS application, but are not universally effective. A popular solution is to roll out a global template, normally designed by the company IS headquarters, in the different countries and all related sites. This solution requires an adaptation process in order to take the local environment into account. One hypothesis is that universal ERP systems can only be implemented successfully in different countries if misfits resulting from cultural differences are resolved. For example, business models, including the operating processes underlying western ERP software packages, reflect European and/or US industry practices. Such operating processes are likely to be different in Asian countries. This adaptation process from global worldwide templates to local specific instances is a crucial step. My research objective is to identify the different issues that need to be taken into account by multi-national companies (MNCs) in order to ensure the success of their global ERP systems.

My case study research has two distinct but complementary dimensions. The first realized in France, will investigate this from the headquarters' side. The second will be realized in China with in-depth case studies from Chinese subsidiaries of French MNCs. China is a good research environment for this study for many reasons: Chinese people use a different writing system with Chinese characters, but they are also in a different symbolic realm of myth, religion, values, metaphor and magic when compared to Europe. Furthermore, the economic model of China is interesting because the way they develop their own local economy is mainly based on a mix between Chinese local traditions and Western influences occurring since the Chinese economic reforms of 1980's. An early case study from the perspective of the second dimension concerns a French company's unsuccessful attempts to implement an ERP in its Chinese subsidiary (Avison and Malaurent, 2007).

This multi-disciplinary research work has several aspects. The most important is this issue of culture. Many authors have worked on the influence of culture on IS (more recently Besson, 1999; Martinson and Revenaugh, 1998; Sheuh et al. 2003). For the purpose of this research, the impact of culture will be studied from three different layers: country, industry and organization. The analysis of the interaction between these three layers will also help to understand the success or otherwise of different ERP implementation projects that may look similar at first glance.

From a theoretical perspective, we are proposing to use Structuration theory (Giddens, 1984), but more as a paradigm than an applicable theory.

There are a number of difficult challenges concerned with researching such a broad issue using case study research, including the difficulty of measuring the success of an international ERP project and our ability to generalize findings from very different MNCs established in China. MNCs may differ because of the legal status of the subsidiary, the structure of the local management team, the experience of local employees using western ERP systems, and other structural factors that define the specificities of the company.

References

Avison, D. E. and Malaurent, J. (2007) Impact of cultural differences: A case study of ERP introduction in China, *International Journal of Information Management,* 27, 5, 2007.

Besson, P. (1999). Les ERP a l'epreuve de l'organisation, Systeme d'Information et Management, 4, pages 21-52.

Giddens, A. (1984). The Constitution of Society: An outline of the Theory of Structure, University of California Press, Berkeley, CA.

Martinsons M. G., and Revenaugh D. L. (1998). IT-Enabled Strategic Change in the Chinese
Business Culture, *Proceedings of 4th Americas Conference on Information Systems*, Maryland, USA.

Sheu C., Hsiuju R.Y., and Krumwiede D. (2003). The effect of national differences on multinational ERP implementation: an exploratory study, TQM & Business Excellence, 14, 6, pp 641–657.

Distributed development of large-scale global systems: Exploring the collaborative practices of particle physicists as they develop a Grid for the LHC

Avgousta Kyriakidou and Will Venters
London School of Economics and Political Sciences, UK

Grid computing promises to distribute and share computing resources "on tap" and provide transparent communication and collaboration between virtual groups (Foster and Kesselman 2003). Yet developing and implementing such complex information infrastructures requires collaboration among a range of dispersed groups, and flexibility and adaptability to volatile requirements (Berman, Geoffrey et al. 2003). Here, we examine a case-study of Grid development within particle physics, the LCG (Large hadron collider (LHC) Computing Grid), in an attempt to explore how such a large-scale distributed system is developed collaboratively in a global way in readiness for the launch of the LHC at CERN in September 2008. The particle physics community is well-known for the development of other cutting edge distributed systems (notably the web) and is itself highly distributed, so presenting a context where distinctive collaborative practices emerge.

Exploring this case we argue that the development of Grids poses new and underexplored opportunities for understanding global collaborative systems development. We therefore particularly examine the systems development practices of the particle physics community as it develops its Grid and the collaboration formed around this development with the aim to offer answers into the wider context of distributed development. We explore collaboration through three distinctive perspectives: creation/sharing of knowledge and expertise; creation of trust and in particular the balance of competitive relationships; innovation of new work practices and technology to support the work. In studying these, we consider practices as an emergent property linked to improvisation, bricolage and dynamic competences which unfold as large-scale projects evolve.

In this research we employ a range of theoretical concepts with a specific focus on communities of practice (Wenger 1998), practices (Schatzki, Knorr-Cetina et al. 2001), learning (Lave and Wenger 1991) and routines (Feldman 2000). Our theoretical framework is drawn from activity theory, which encompasses/focuses on such concepts (Nardi 1996), and frames the LCG project as a complex activity system influenced by the context, the community's rules, norms, culture, history, past-experiences, shared-visions and collaborative practices. We propose to understand the Grid's development as a series of contradictions between the elements of this activity system, which are in a continuous process of getting resolved in order for the activity system to achieve stability and balance. Contradictions are considered to be the major source of dynamism and development in activity theory (Bertelsen 2003), since based on the emerging problems and conflicts, people have to re-considered their position and collectively re-construct their shared understanding, knowledge and practices.

Evidence for this research is taken from over 70 semi-structured interviews with members of LCG, as well as observation of their major meetings/workshops. The research also draws upon literature from fields such as global systems development, open-source development, and global-outsourcing to provide concrete practical recommendations for those considering the collaborative development of large-scale systems, and provide suggestions for how such collaboration might be aided. It is hoped that the lessons learned from this community's distributed collaborative development of a Grid might be able to describe a "new form" of systems development practice and thus inform IS-development literature.

References

Berman, F., F. Geoffrey, et al. (2003). The Grid: past, present, future. In: Grid Computing- Making the Global Infrastructure a Reality. F. Berman, F. Geoffrey and T. Hey, John Wiley & Sons.

Bertelsen, O. W. (2003). Contradictions as a tool in IT-design: Some notes. 8th European conference of computer supported cooperative work (ECSCW), Helsinkin, Finland.

Feldman, M. (2000). "Organizational Routines as a Source of Continuous Change." Organization Science **11**(6): 611-629.

Foster, I. and C. Kesselman (2003). The Grid in a Nutshell. In: Grid Resource Management – State of the Art and Future Trends. J. Nabrzyski, J. Schopf and J. Weglarz, Kluwer Academic Publishers.

Lave, J. and E. Wenger (1991). Situated learning: Legitimate Peripheral participation. New York, Cambridge university press.

Nardi, B. (1996). Context and Consciousness: Activity theory and human computer interaction. Cambridge, MIT Publisher.

Schatzki, T., K. Knorr-Cetina, et al., Eds. (2001). The Practice Turn in Contemporary Theory. London,UK, Routledge.

Wenger, E. (1998). Communities of practice: Learning, meaning and identity. Cambrdige, United Kingdom, Cambridge University Press.

The Interplay of Information Technology and Aesthetic Elements of Organizing

Uri Gal, University of Aarhus, Denmark
Ryan Baxter, Bentley College, USA
Nicholas Berente, University of Michigan, USA

From Plato to Kant and beyond, an appreciation of aesthetics has been central to an understanding of human action. Practical philosophies that guide human action are in no small degree based on aesthetic sentiments that are developed through experience (James 1909). Aesthetic dispositions, or tastes, are central to social experience, as well, and are inexorably linked to human identity and the recreation of social structures (Bourdieu 1984). However, discussions of aesthetics have been virtually nonexistent in the information systems discourse[1], and are only recently being introduced by organizational scholars (e.g., Strati 1999; Linstead & Höpfl 2000; Ewenstein & Whyte 2007). In the past, notions relating to aesthetics have been subsumed within utility functions, the boundedness of rationality, and the tacit dimensions of human knowing. The time is ripe for addressing aesthetic concerns in their own right.

It is our assertion that understanding the importance of aesthetic concepts such as taste and sentiments are important for understanding organizational activity - especially as concerns for innovation and design are becoming increasingly central to the organizational discourse (Boland & Collopy 2004). Information systems, as foundational elements of modern organizational practice are implicated in concerns related to aesthetic principles in innovative design activity. We look at a number of Frank Gehry's highly innovative architectural projects to understand the ways in which the interplay among information technologies, organizing, and aesthetic principles play out in practice. Frank Gehry is known for his vision of architecture that emphasizes the importance of artistic forms and spaces that engage a whole network of sensory and perceptive human devices. In his view, buildings are encountered by people not as mere physical structures with certain dimensions, functionalities, and attributes. Building are also experienced, negotiated, and consumed in ways that elude such objective and rational criteria, but in ways that are intertwined with aesthetic sentiments.

A focus on aesthetics recognizes that while organizations are socially structured, this structuring process is not exclusively cognitive, but involves the knowledge-creating faculties of all the human senses (Strati, 1999). The aesthetic knowledge that is created by the perceptive faculties is not entirely verbal and defies the structured logic of rational intellectual reasoning. Nevertheless, people's aesthetic perceptions can have a real bearing on organizational life. People's experiences of the sounds, sights, and smells that surround them can, at different times, produce anger, frustration, sadness, disappointment, fear, joy, hope, or passion. These aesthetically-aroused feelings and

---

[1] A noteworthy exception is some of the work on the design of human interfaces and web pages – much of the work of Noam Tractinsky, for example (e.g., Tractinsky et al 2000; Lavie & Tractinsky 2004)

emotions can stimulate certain individual or collective actions with significant organizational implications. Aesthetic elements are evident in the forms of organizing that are instrumental to Gehry's radically innovative construction projects, and information technologies are appropriated in a variety of ways, including beauty, comedy, gracioucness, playfulness, and rhythm (Strati 1999). In this paper we attend to each of these in an effort to create a framework of the relationship between information technology and aesthetics in organizing.

References

Boland, R.J. and Collopy, F. (2004) *Managing as Designing*, Stanford University Press.

Bourdieu, P (1984) *Distinction, A Social Critique of the Judgment of Taste*, Harvard University Press.

Ewenstein, B. & Whyte, J.K. (2007) "Beyond Words: Aesthetic Knowledge and Knowing in Organizations," *Organization Studies*, 28(5): 689-708.

James, W. (1909) *A Pluralistic Universe*, Longmans, Green, & Co.

Lavie, T., and Tractinsky, N. (2004) "Assessing dimensions of perceived visual aesthetics of web sites," International Journal of Human-Computer Studies, 60(3): 269-298.

Linstead, S. and Höpfl, H. (2000) *The Aesthetics of Organization*, Sage.

Strati, A. (1999) *Organization and Aesthetics*, Sage.

Tractinsky, N., Katz, A.S., & Ikar, D. (2000) "What is beautiful is usable," *Interacting with Computers,* 13(2): 127-145

Developing and validating a method for supporting media choice based on genre analysis

Nadine Vehring & Kai Riemer
European Research Center for Information Systems (ERCIS)
The University of Muenster, Germany
nadine.vehring@ercis.de

In this paper we briefly introduce a study that aims at developing a method for supporting media choice in a concrete team setting based on genre analysis. While we have identified genre analysis as a useful tool and applied it in different contexts, we are reasoning about how to further develop this approach into a method (with certain instruments) and how to validate and evaluate such a method.

Work in organisations is increasingly organised in dispersed, virtualised setting requiring effective computer-mediated communication. Therefore, the choice and configuration of adequate communication media is of interest to Information Systems researchers. When it comes to supporting media choice for one specific team, Media Choice Theories (MCT), like Media Richness Theory (MRT) or Social Presence Theory, turn out to be not very useful, because of their high degree of abstraction and their intend to generalize across many social contexts. While these theories focus on the idea of a task-media-fit, they usually abstract from the social team contexts. Moreover, focal constructs within the theories are not very well specified, which renders their application in a concrete case a difficult task. For example, task complexity is used in MRT to determine media fit. However, how to judge and determine task complexity is not well specified; it also can be argued that this complexity is something that is perceived differently by different people and very much dependent on the context and the experience of people with a particular task.

Henceforth, while the idea of a task-media-fit has some merit for media choice in a team, there are many aspects that have to be taken into account. Due to the high complexity of teamwork, it is not possible to identify completely separated tasks. Furthermore, there can be no doubt that media choice and media use is socially embedded and that the specific context of communication is important to understand media choice. Because of this, a contextualised approach is needed to be able to make an adequate media choice in a concrete team context.

A genre analysis facilitates the analysis of routinized team communication and can therefore be used as a vehicle for eliciting communication patterns of a team. A genre analysis results in a so-called genre repertoire, which describes the existing team communication in a structured way. Communication genres and their characteristics then can be used as a starting point to analyze the current media usage and to infer media requirements for the different communication genre. From these requirements we argue a set of media can be identified that aims at improving current team communication. Moreover, since genres represent the team's own communication they can be used to communicate effectively the intended media usage improvements.

Having applied genre analysis in two different team contexts, which yielded promising results, we now intend to further develop this approach into a method. For doing so, we need to address two important aspects. On the one hand we need to design *a set of instruments* that can be used to guide an analyst or consultant in identifying communication genres. Our way of collecting and analysing the relevant data is based on qualitative research and analysis methods and still quite laborious. On the other hand we need to identify an *approach for validating our method*. In order to demonstrate that our design research approach leads to an effective method, we need to demonstrate or validate its usefulness and effectiveness.

Consequently, at this point we need to address two main *questions*. The first one is: How do we evaluate the "success" of such a method? This question implies a second one: What does "success" mean? Is it about working faster or more effectively, being more satisfied or something completely different? Also, is it possible to compare media choice results from our method against existing MCT? And would it be necessary to do this?

ICT-enabled organisational change: exploring emerging collaborative (business) models in the UK independent television and film sectors

Lynne Nikolychuk
King's College London
Department of Management
G90, Franklin-Wilkins Building
150 Stamford Street
London SE1 9NN
Email: lynne.nikolychuk@kcl.ac.uk

Pamela Abbott
Brunel University
Department of Information Systems and
Computing
Uxbridge, Middlesex
UB8 3PH
Email: pamela.abbott@brunel.ac.uk

The UK's independent television and film production sectors have been experiencing considerable upheaval in relation to their traditional organising models and modes of production. Ongoing advancement of digital technologies, content producer ingenuity, and policies aimed to exploit the economic potential of these two sectors on a global basis across multiple platforms, suggest that understanding the new rules of the game, as they emerge, are likely to be key input factors to future
success, in both cultural and commercial terms.

Unlike some industries, independent producers of UK television programmes and films have long recognised the importance (and perhaps necessity) of collaboration, on an individual and interorganisational basis. While there is some consensus in the literature that the media sectors, which traditionally cover forms of mass communication such as television, are poised to be at the forefront
of technological innovation such as ICT-enabled on-demand TV, digitized music and e-enabled publishing in the newspaper and magazine domains (Negroponte 1996; Zwass 2003), there is little research that analyses in-depth the actual processes of change occurring at an organisational level.

The aim of this research is to investigate these emerging practices in-depth and to attempt to understand them within a suitable theoretical framework. Hence, our orienting research questions are: how does the presence of current opportunities and challenges, influenced by advances in technology and global competitiveness, raise the need for these SMEs to collaborate in novel ways; who are the new stakeholders and emerging players (competitors/collaborators) in these fields and
how are they redefining the boundaries of organisational practice? How may networks, for example, as an organising form, operate in this changing environment?

Various streams of research investigate organisational forms arising from ICT-enabled structural changes such as virtual organisations (Riemer and Klein 2007; Davidow and Malone 1993) and network organisations (Ching 1997). These streams lead to current concerns with the nature, form and functioning of inter-organisational relationships (Schmidt and Kochan 1977). Analytical tools such as value chain analysis have also been used to analyse shifts in power amongst participants in
the value networks thought to arise from ICT-enabled structural changes (Loebbecke and Powell 2002). In keeping with these traditions, we propose to flesh-out the organisational forms of emerging collaborative (business) models through the application of some variant of social network analysis (Scott 1991) and/or value chain analysis (Porter 2001; 1985; 1980).

We employed a qualitative method of enquiry for this study using a two-stage process. First, a themed workshop was held which was attended by participants chosen from a cross-section of the

two sectors who engaged in informed discussion (recorded by dedicated scribes) about the collaborative models currently operating in these sectors and investigated the extent that new organising forms of collaboration were emerging. Second, 20 in-depth interviews were held with a subsection of the workshop participants exploring in more detail the nature, structure and productive outcomes of these collaborative relationships. Workshop and interview data were coded according to the main themes arising. Initial findings suggest a number of definable networked models of collaboration, some of which highlight quite innovative and potentially commercially exploitable business practices. The work of analysis and interpretation is still ongoing in tandem with development of a stable analytical method.

References:
CHING, C., 1997. Network Organizations and Information Technology: Introduction to the Special
issue on the Network Organizations. *Journal of Organizational Computing and Electronic Commerce,* **7**(2), pp. 79-82.
CLEMONS, E.K., REDDI, S.P. and ROW, M.C., 1993. The Impact of Information Technology on
the Organization of Economic Activity: The "Move to the Middle" Hypothesis. *Journal of Management Information Systems,* **10**(2), pp. 9-35.
DAVIDOW, W.H. and MALONE, M.S., 1993. The virtual corporation : structuring and revitalizing
the corporation for the 21st century. New York: HarperBusiness Publishers.
LOEBBECKE, C. and POWELL, P., 2002. E-business in the entertainment sector: the Egmont case.
International Journal of Information Management, **22**(4), pp. 307-322.
NEGROPONTE, N., 1996. Being digital. London: Coronet Books.
PORTER, M.E., 2001. Strategy and the Internet. *Harvard business review,* **79**(3), pp. 62-78.
PORTER, M.E., 1985. Competitive advantage : creating and sustaining superior performance. New
York; London: Free Press; Collier Macmillan.
PORTER, M.E., 1980. Competitive strategy : techniques for analyzing industries and competitors.
New York ; London: Collier Macmillan.
RIEMER, K. and KLEIN, S., 2007. Is the V-form the next generation organisation? An analysis of
challenges, pitfalls and remedies of ICT-enabled virtual organisations based on social capital theory.
Journal of Information Technology, **23**(3), pp. 1-16.
SCHMIDT, S.M. and KOCHAN, T.A., 1977. Interorganizational Relationships: Patterns and Motivations. *Administrative Science Quarterly,* **22**(2), pp. 220-234.
SCOTT, J., 1991. Social Network Analysis: a handbook. London: Sage.
ZWASS, V., 2003. Electronic commerce and organizational innovation: Aspects and opportunities.
International Journal of Electronic Commerce, **7**(3), pp. 7-37.

Investigating the Relationship between Collective Action and Technological Innovations in the Context of the Microfinance Movement

Wifak HOUIJ-GUEDDANA
London School of Economics, LSE

Abstract:

The microfinance social movement is the offshoot of many experiments around the world that coalesced around the shared aim of eradicating poverty through economic growth and poor's access to financial markets. Beyond the firmly established contribution of a wide range of ad hoc, small scale players and informal microfinance arrangements to the United Nation Millennium Development Goals, the microfinance movement has also attracted the interest of banks and private investors. Almost three decades later, microfinance is an international social business worth more than $17 billion (in terms of outstanding loans) that only represents 10% of its market potential. Therefore the debate has intensified on how to modernize the management of microfinance service providers (MSPs) and sustain the mechanisms of organising the collective action of multiple interest groups in the microfinance movement.

Recently, and somewhat blindly, a belief among mainstream microfinance has championed the idea of IT as an effective way to cultivate institutional professionalism among MSPs and to provide better, global-scale services for the "unbanked". Technological innovations, such as Open Source Software for microfinance, peer to peer microfinance and mobile-payments are deemed to have a potential to empower and extend MSPs' delivery channels and foster stronger monitoring of their financial transactions. However, such an instrumental perspective fuels the illusion of control over technology by anticipating positive returns, while IT for development literature (ITD) abounds with cases of IT failures and unsuccessful innovation projects. Moreover, there is little analytical research on the mechanisms of organising global and multi-partners IT innovations for microfinance making it difficult to reasonably assess the numerous prospects in the face of community members.

I discuss in this paper the design of a multi-methodological approach to scrutinize three network IT-enabled microfinance projects. The analysis of these three imbricated case studies aims at unravelling configurations of social relations between the involved participants when globally developing collective IT projects for microfinance. Using a combination of analytical and rhetorical tools will first provide a typology of the relevant interest groups and then yield a thick narrative on social change within the observed network arrangements. I thus claim that multi-type data collection and complementary qualitative analysis are in this case crucial to go beyond an atomized anecdotal view resulting from only interviews and should render the picture as complete as possible.

This study draws on the 3rd wave of research within the field of Science and Technology Studies and its insights into how social reality endures by enacting the connection between people's ideas and the technologies mediating their interactions. Going forward, I suggest that studying the relationship between IT and organizing collective action, should offer an analytical examination of the regulatory, institutional and political challenges in the transitional status of the microfinance movement. By exploring how relations of multiple interest groups are sustained within collective microfinance IT projects, I thus inform how such a community is formed and maintained within embedded socio-technical arrangements.

References

- Aldrich, H. and Martin R. (2006). *Organizations Evolving*. Sage Publications 2nd Edition.
- Armendariz De Aghion, B. and Morduch, J. (2005) *The economics of microfinance*. Cambridge, Mass.: MIT Press.
- Chung, J. (2007) Microfinance Faces obstacles in debt markets. *FT.COM* -June 26.
- Creswell, J. W. (1998) *Qualitative Inquiry and Research Design*. Sage Publications.
- Czarniawska-Joerges, B. (2004) *Narratives in Social Science Research*. Sage Publications.
- Granovetter, M. (1985) Economic Action and Social Structure: The Problem of Embeddedness. *The American Journal of Sociology* 91, no. 3: 481-510.
- Law, J. and Annemarie Mol A. (2002) *Complexities: Social Studies of Knowledge Practices*. Edited by John L. and Mol A. Duke University Press.
- Law, J. (2007) Actor Network Theory and Material Semiotics. Available at: www.heterogeneities.net/publications/Law-ANTandMaterialSemiotics.pdf .
- Marres, N. (2005) No issue, no public: Democratic deficits after the displacement of politics. Fac. of Humanities/ Amsterdam. Available at: http://dare.uva.nl/cgi/b/bib/bib-idx?sid=849e3e5330986918aa2bac47ea26ece9;c=uvadare;lang=en;type=simple;rgn1=author;pagelink=author;q1=marres%2C%20n.s.;sort=publicationyear;cc=uvadare;view=reslist;fmt=long;page=reslist;start=1;size=1.
- Melucci, A. (1996) *Challenging Codes: Collective Action in the Information Age*. Cambridge UniversityPress.
- Pickering, A. (1999) The mangle of practice: Agency and emergence in the Sociology of Science. In *The Science Studies Reader*, ed. Mario Biagioli, 373-393. Routledge.
- Putnam, R. D. (2000) *Bowling Alone: The Collapse and Revival of American Community*. Simon & Schuster.
- Sahay, S. and Avgerou, C. (2002) Introducing the Special Issue on Information and Communication Technologies in Developing Countries. (See also papers by Heeks, R. Suchman, L. and others in the same issue) The Information Society 18 (March 1): 73-76.

From democratic spaces to the electronic panopticon: a Foucauldian analysis on how virtual interactions may support disciplinary power

Magda Hercheui

London School of Economics, UK

Based on an intensive research with virtual communities, this study argues that a virtual space, supposed to be a democratic arena for debate, may become an electronic panopticon. The panopticon was conceptualized by Jeremy Bentham as a prison in which the observer would be able to monitor the prisoners without permitting them to realise when such an observation was in place. In this system, prisoners would discipline their behaviour with fear of being observed. Similarly, a virtual space of interaction may become a kind of panopticon, although with other peculiarities. For instance, differently of the traditional panopticon, all members who belong to the same virtual space may observe each other. In the studied case, members of a group of voluntary virtual communities identify that they filtered the opinions they express in the online environment as they have fears of suffering negative consequences in their offline environment if they express inconvenient standpoints. Thus although all may observe each other, some have power to frame the direction of the debate. Drawing upon Foucault, this research argues that the virtual interaction may become an instrument of disciplinary power: members adapt their online behaviour in order to avoid potential punishment. As some protect themselves through silence, and others keep repeating their truth, the emergent discourse many times just reproduces institutionalized perspectives of powerful groups meanwhile other non-institutionalised standpoints are kept hidden. Furthermore, in the studied communities, leadership members have a second channel of communication, in which they may discuss issues without being observed by ordinary members. In some occasions, this second channel works as a stage area, in which leaders define which standpoint would be defended in the broad community, and how they would present the ideas in order to make their standpoint a prevalent one for the whole community. Thus leaders use the segregation of discussion channels as a technique to reinforce a regime of truth that is convenient for them, masking the process as a democratic emergence of consensus. As defined by Foucault, institutions are effective when they are grounded in regimes of truth, and different techniques are necessary to permit the reproduction of institutions. This study takes a Foucauldian approach to understand how voluntary collectives interact through virtual channels in such a way of permitting the emergence of a kind of electronic panopticon in an environment which was supposed to foster democratic debate.

References:
Foucault, M. (1977). *Discipline and Punish: The Birth of the Prison*. London: Penguin.
Foucault, M. (1980). *Power/Knowledge – Selected Interviews and Other Writings (1972-1977)* (edited by Colin Gordon). New York: Pantheon Books.

Foucault, M. (1988). "Technologies of the Self", in L.H. Martin, H. Gutman, and P.H. Hutton, *Technologies of the Self*. Amherst: The University of Massachusetts Press.

Foucault, M. (1988). "The political technology of individuals", in L.H. Martin, H. Gutman, and P.H. Hutton, *Technologies of the Self*. Amherst: The University of Massachusetts Press.

Australian HRIS issues – local or global?

Cate Jerram, University of Adelaide Business School, Australia

Personnel in Human Resources departments in Australian organizations have reported that Human Resources Information Systems in Australia are consistently unable to meet the needs of HR personnel to support organizational functions adequately. The original research responding to these reports centred at first on payroll systems being inadequate to the Australian industrial climate, but investigation has broadened the fields of interest requiring research within the HRIS/HRMS domain to include a number of diverse issues.

One key problem is that the HR role in organizations is a Support Activity, and thus is expected to support all Primary Activities adequately (eg: it is not healthy for an organization to fail to pay employees on time, have key personnel retire with no one to replace them, or have workers with expired qualifications) – yet organizations are reluctant to invest money in HRIS to empower the efficiency and effectiveness of the support expected. This situation is further complicated by the fact that most HR personnel are drawn from disciplines and backgrounds that do not include IS or IT training or even high computer-literacy skills.

Thus far, our current research into Australian HRIS has involved interviewing HR and/or IS personnel in forty[2] organizations across a range of industry types and sizes from SMEs to Multi-National Corporations. Issues arising from our current research into the HR Information Systems situation in Australia include:

[1] Pay processes complicated by the heavily unionized industrial climate with complex and constantly changing patterns of pay, compensations, leave and superannuation. Most systems lean heavily on augmented, rather than automated, processes, particularly in industries with working conditions other than salaries and 9:00 – 5:00 work schedules. This issue is exacerbated by most computerized payroll systems being created in and maintained from the USA, where the industrial climate is very different.

[2] Most HRIS started as payroll and grew haphazardly and piecemeal. Most HR departments do not have cross-functional support, and data mining becomes time-consuming and ineffective so HR managers are consistently unable to produce quality information or make sound business decisions based on what should be readily available information within the organization.

[3] Almost all Business divisions are struggling with business professionals (including recent graduates) who lack fundamental IS skills that are necessary just to accomplish

---

[2] Projected figure for December/OASIS. Current figures in mid-September are 20 personnel interviewed in 18 organizations.

daily work-load in any aspect of business professional life, yet universities do not seem to be accommodating the developing need for core IS skills in non-IS business graduates. Furthermore, where IS are taught as a required skilling component of a Business degree, the core components taught miss the base needs of future business professionals.

We believe these problems within Australian industry might either be shared – or already have solutions – in countries where the Industrial climate and HR conditions will have more in common with Australia than the USA where most Australians source their HRIS. The researchers from the University of Adelaide Business School are looking for international partners to share research and exchange information on these issues.

Towards the Analysis of the Effect of Blogs and Online Communities on Business Innovation

Víctor Bohórquez – IE Business School, Madrid, Spain
José Esteves – IE Business School, Madrid, Spain

Many new technology-driven innovations are being developed to improve the dissemination and sharing of information. Blogs and online communities are the latest example of these new emergent technologies.

According to Hsu and Lin (2008), the blog phenomena can attract attention and exert great influence on society. In fact, the nature of blogs makes easier the communication and the interaction between people with similar interests. The power of blogs is their ability to immediately put form to thought, and in seconds share it with the world.

Laursen and Salter (2006) consider the search for new ideas with commercial potential to be a central part of the innovation process. This task could be accomplished by blogs as they prove to be a prolific source of innovative ideas in the digital economy as well as an increasingly useful and powerful inspiration for innovative developments and uses of the Web (Ashley 2002). Corporate blogs are the voice of the organization and they should be aligned with the innovation strategy as well as with the vision and mission of the organization. Furthermore, the involvement of senior executives is crucial for the success of corporate blogs as a source of continuous innovation.

Füller et al. (2004) introduce a method to utilize the existing innovative potential of online communities by integrating its members virtually into new product development. In this regard, the blog phenomenon is a remarkably complex and innovative means of communication (Krishnamurthy 2002), which is used for everything from spontaneous comments to interesting debates in group discussions or specialized communities.

Previous research studies identify innovation as the main driver for organizations to prosper, grow and sustain a high profitability (e.g. Drucker 1988, Christensen 1997, Thomke 2001). However, the doubt lies on how to innovate and how innovation processes can be managed. Currently, there is a lack of research studies in these issues. Therefore, the main goal of this research study is to compare the innovation level among three kinds of organizations: those that do not use neither blogs nor online communities, those that use only blogs and those that use blogs and online communities. Additionally, we will assess whether size and business sector moderate the level of innovation in organizations. In order to measure innovation, Epstein and Westbrook (2001) suggest a useful framework to describe the causal relationships behind an innovation model. We will focus on the first and the last blocks of this framework because they are in organization boundaries; hence, they are in contact with actors outside the organization. For organizations that have a blog, we will focus on CEO blogs as special case of corporate blogging. I will obtain the list of CEO blogs from a wiki that compiles information about blogs authored by people who are in leadership positions in different types of companies (http://www.thenewpr.com/wiki/pmwiki.php/Resources/CEOBlogsList?pagename=Resources.CEOBlogsList). For organizations that have not a blog, we will consider organizations with similar characteristic than the other ones because we will compare the

level of innovations in both sub-samples. The characteristic whether organizations have online communities will be asked in a survey as well as other demographic information. The implications of this research study are interesting not only for academic but also for practitioners. The understanding of the importance of blogs as a R&D and knowledge management tool is useful because in business environments more and more organizations are using blogs as an interactive communication channel among their different business stakeholders. The knowledge of whether this tool can be used to improve the innovation strategy of organizations is a key issue in the continuous challenge to obtain competitive advantages.

Unpacking Ubiquity
Interaction Symmetry and Asymmetry at Work

Carsten Sørensen

London School of Economics and Political Science
Department of Management
Information Systems and Innovation Group
London, United Kingdom

c.sorensen@lse.ac.uk

www.carstensorensen.com
mobility.lse.ac.uk

1.Introduction

The everyday relationships forged between humans and computers have always been complex ones (Arnold, 2003). However, the last 20 years of innovation shrinking wireless connected computers has re-shaped the relationships further and added additional richness and complexity. The mobile phone is of course the obvious example of a technology emerging from such innovation, which has successfully found a place almost everywhere with an estimated 3.5 billion users in 2008 (Kluth, 2008). The notion of ubiquitous computing has been a popular subject in the popular press for decades and has attracted the interest of academics within a variety of research fields. The ongoing mobile phone revolution combined with emerging wireless connectivity of notebook computers and home entertainment systems imply a need for better understanding of the socio-technical relationships formed between users and the technology that keeps moving closer and closer to our bodies and further and further into most aspects of our lives. The aim of this paper is to take a specific- and admittedly idiosyncratic - view on ubiquity as it represent an interesting mostly individual view into a global phenomenon of humans and technology engaging in mutual cultivation of relationships.

The concept of ubiquitous computing is not well defined even if it signals the ultimate convergence of humans and computers (Sørensen and Gibson, 2008). Mark Weiser famously coined the concept in his 1991 Scientific American article (Weiser, 1991). Here he outlined the future of computing where miniaturisation of networked computing equipment and sensor technology imply not only computers everywhere, but computers will also disappear right in front of or eyes and support us unnoticeably through "invisible" services with seamless integration and automation both knowing our every whim and being able to act upon them. Weiser drew his mainly technical arguments from the irrefutable prophecy of a move from one CPU per thousands of people, one CPU per person in the PC age and foreseeing near future promising thousands of CPUs per individual. Although this prophesy is not quite realised yet, it is within reach for people in economically developed parts of the world. What is essential to understand is that the availability of thousands of CPUs for each person does not necessarily make up a digital utopia of ease and the human-computer relationship with ubiquitous computing reveals a range of new challenges and problems.

The aim of this article is to further explore the understanding of what constitutes an ubiquitous human-technology relationship as this generally is an under-researched area. Noone has so far really sought in detail to understand the relationships between the individual experience of ubiquity and the general systems features supporting this experience. Formulated negatively, so far there has been little research into the main barriers for information and communication technology becoming ubiquitous. It can be argued that most of the experiences with mobile technology leave behind less than ubiquitous user experiences although the handsets are perpetually carried around and in constant touch with the underlying infrastructure (Sørensen and Gibson, 2004). The article will, furthermore, anchor its analysis of ubiquity in the context of technology supporting people at work and will draw upon brief examples from a number of case studies.

Understanding ubiquity involves addressing a broader range of both social and technical issues than the space in this paper will allow. This paper will emphasise the combined two particular aspects of ubiquity. Firstly, the paper emphasises the cultivation of ubiquitous relationships in the context of work where the technology supports human-computer and human-human interaction for collaborative purposes. Secondly, the paper in particular seeks to understand the how specific technical design characteristics of the technology can influence the activities of cultivating the ubiquitous relationship between users and the technology.

The concepts of interaction symmetry and asymmetry are established in order to characterise two essential aspects of the socio-technical relationships, namely the technical assumptions about the support embedded within the technology, and the social assumptions governing the relationships between people interacting through the technology. Interaction symmetry and asymmetry are then applied in a discussion of processes of embedding organisational arrangements into information and communication technology.

The following section discusses the concept of ubiquity. Section 3 characterises the social appropriation of technological support embedding assumptions of interactional symmetry and asymmetry, under assumptions of mediated encounters versus relationships. Section 4 uses this perspective in the analysis of a number of instances of mobile interaction from a pool of empirical studies of mobile work. Section 5 discusses these results and suggest a number of lessons that can be drawn from understanding support for mobile work in terms of interactional symmetry and asymmetry in the context of individuals interacting and in terms of the interactional boundaries of the organisation. Section 6 Concludes the paper.

References

Agar, J. (2003): Constant Touch: A Global History of the Mobile Phone. Cambridge: Icon Books.

Al-Taitoon, A. (2005): Making Sense of Mobile ICT-Enabled Trading in Fast Moving Financial Markets as Volatility-Control Ambivalence: Case Study on the Organisation of Off-Premises Foreign Exchange at a Middle-East Bank. PhD Dissertation, London School of Economics.

Albrecht, K. & L. McIntyre (2006): Spychips: How Major Corporations and Government Plan to Track Your Every Move with RFID. USA: Nelson Current.

Arnold, M. (2003): On the Phenomenology of Technology: The "Janus-Faces" of Mobile Phones Information and Organization, vol. 13, pp. 231-256.

Baresi, L., S. Dustdar, H. Gall, & M. Matera, ed. (2004): Ubiquitous Mobile Information and Collaboration Systems: Second CAiSE Workshop, UMICS 2004, Riga, Latvia. Berlin: Springer-Verlag. 3 540 24100 0.

Boateng, K. (Forthcoming): Understanding Contemporary Work Practices: On The Dynamics of Control in Technology Mediated Interaction. PhD Dissertation, London School of Economics.

Carstensen, P. & C. Sørensen (1996): From the Social to the Systematic: Mechanisms Supporting Coordination in Design. Journal of Computer Supported Cooperative Work, vol. 5, no. 4, December, pp. 387-413.

Castells, M., J. L. Qiu, M. Fernandez-Ardevol, & A. Sey (2007): Mobile Communication and Society: A Global Perspective. The MIT Press.

Chorost, M. (2007): Rebuilt: How Becoming Part Computer Made Me More Human. Souvenir Press Ltd.

Ciborra, C. (2006): The Mind or the Heart? It Depends on the (Definition Of) Situation. Journal of Information Technology, vol. 21, pp. 129-139.

Close, F. (2001): Lucifer's Legacy: The Meaning of Asymmetry. Oxford Paperbacks.

Dourish, P. (2001): Where the Action Is: The Foundations of Embodied Interaction. MIT Press.

Elaluf-Calderwood, S. (Forthcoming): Organizing Self-Referential Taxi –Work with mICT: The Case of the London Black Cab Drivers. PhD Dissertation, London School of Economics.

Goffman, E. (1963): Behavior in Public Places: Notes on the Social Organization of Gatherings. New York, NY: The Free Press.

Greenfield, A. (2006): Everyware: The Dawning Age of Ubiquitous Computing. Peachpit Press.

Hansmann, U., L. Merk, M. S. Nicklous, & T. Stober (2003): Pervasive Computing. (Second Editon). Berlin: Springer. 3-540-00218-9.

Hartmann, M., T. Berker, Y. Punie, & K. Ward, ed. (2005): Domestication of Media and TechnologyOpen University Press.

Heath, C. & P. Luff (2000): Technology in Action. Cambridge, United Kingdom: Cambridge University Press.

Ishii, H. & B. Ullmar (1997): Tangible Bits: Towards Seamless Interfaces between People, Bits and Atoms. In Proc. ACM Conf. Human Factors in Computing Systems CHI' 97, Atlanta, GA. ACM.

Kakihara, M., C. Sørensen, & M. Wiberg (2004): Negotiating the fluidity of mobile work. In The Interaction Society: Practice, Theories, & Supportive Technologies, ed. M. WibergIdea Group Inc., pp. Chapter 7.

Kallinikos, J. (2006): The Consequences of Information: Institutional Implications of Technological Change. Cheltenham: Edward Elgar.

Karsten, H. (2003): Constructing Interdependencies with Collaborative Information Technology. Computer Supported Cooperative Work, vol. 12, pp. 437–464.

Kietzmann, J. (2007): In Touch out in the Field: Coalescence and Interactive Innovation of Technology for Mobile Work. PhD Dissertation, London School of Economics and Political Science.

Kluth, A. (2008): Nomads at Last - A Special Report on Mobile Telecoms. The Economist, April 12th. http://www.economist.com/specialreports/displayStory.cfm?story_id=10950394

Kourouthanassis, P. E. & G. M. Giaglis, ed. (2008): Pervasive Information Systems. Armonk, New York: M.E.Sharpe.

Libbenga, J. (2006): Video surveillance outfit chips workers. The Register. http://www.theregister.co.uk/2006/02/10/employees_chipped/

Ling, R. (2004): The Mobile Connection: The Cell Phone's Impact on Society. Amsterdam: Morgan Kaufmann.

Ling, R. (2008): New Tech, New Ties: How Mobile Communication is Reshaping Social Cohesion. The MIT Press.

Ljungberg, F. (1999): Exploring CSCW Mechanisms to Realize Constant Accessibility Without Inappropriate Interaction. Scandinavian Journal of Information Systems, vol. 11, no. 1.

Ljungberg, F. & C. Sørensen (2000): Overload: From transaction to interaction. In Planet Internet, ed. K. Braa, C. Sørensen, and B. Dahlbom. Lund, Sweden: Studentlitteratur, pp. 113-136.

Lyytinen, K. & Y. Yoo (2002a): Issues and Challenges in Ubiquitous Computing. Communications of the ACM, vol. 45, no. 12, pp. 62-65.

Lyytinen, K. & Y. Yoo (2002b): The Next Wave of Nomadic Computing: A Research Agenda for Information Systems Research. Information Systems Research, vol. 13, no. 4, pp. 377-388.

Lyytinen, K. J., Y. Yoo, U. Varshney, M. Ackerman, G. Davis, M. Avital, D. Robey, S. Sawyer, & C. Sørensen (2004): Surfing the Next Wave: Design and Implementation Challenges of Ubiquitous Computing. Communications of the AIS, vol. 13 Article 40, pp. 697-716. http://cais.aisnet.org/

Mann, S. (2003): Existential Technology: Wearable Computing Is Not the Real Issue! Leonardo, vol. 36, no. 1, pp. 19–25.

Mann, S. & H. Niedzviecki (2002): Cyborg: Digital Destiny and Human Possibility in the Age of the Wearable Computer. Doubleday Canada.

Mathiassen, L. & C. Sørensen (2008): Towards A Theory of Organizational Information Services. Journal of Information Technology, vol. 23, no. 4.

Mazmanian, M. A., W. J. Orlikowski, & J. Yates (2005): Crackberries: The Social Implications of Ubiquitous Wireless E-Mail Devices. In Designing Ubiquitous Information Environments: Socio-technical Issues and Challenges, ed. C. Sørensen, Y. Yoo, K. Lyytinen, and J. I. DeGross. New York: Springer.

Mccullough, M. (2004): Digital Ground: Architecture, Pervasive Computing, and Environmental Knowing. vol. The MIT Press. Cambridge, Massachusetts.

Mitchell, W. J. (1995): City of Bits: Space, Place and the Infobahn. Massachusetts, USA: The MIT University Press.

Mitchell, W. J. (2003): Me++ : the cyborg self and the networked city. Cambridge, Mass.: MIT Press. 0-262-13434-9.

Ngwenyama, O. K. & A. S. Lee (1997): Communication richness in electronic mail: Critical theory and the contextuality of meaning. MIS Quarterly, vol. 21, no. 2, pp. 147-167.

Norman, D. (1999): The Invisible Computer: Why Good Products Can Fail, the Personal Computer Is So Complex, and Information Appliances Are the Solution. MIT Press.

Pamplin, J. (2005): How to Track Any UK GSM Mobile Phone (Without the User's Consent). 2600 - The Hacker Quarterly, pp. 17.

Pica, D. (2006): The Rhythms of Interaction with Mobile Technologies: Tales from the Police. PhD Thesis, London School of Economics.

Schmidt, K. (1993): Modes and Mechanisms of Interaction in Cooperative Work. In Computational Mechanisms of Interaction for CSCW, ed. C. Simone and K. Schmidt. Lancaster, England: University of Lancaster, pp. 21-104. [COMIC Deliverable 3.1].

Schmidt, K. & C. Simone (1996): Coordination mechanisms: An approach to CSCW systems design. Computer Supported Cooperative Work: An International Journal, vol. 5, no. 2-3, pp. 155-200.

Sørensen, C. & A. Al-Taitoon (2008): Organisational Usability of Mobile Computing: Volatility and Control in Mobile Foreign Exchange Trading. International Journal of Human-Computer Studies, vol. 66.

Sørensen, C., A. Al-Taitoon, J. Kietzmann, D. Pica, G. Wiredu, S. Elaluf-Calderwood, K. Boateng, M. Kakihara, & D. Gibson (2008): Enterprise Mobility: Lessons from the Field. Information Knowledge Systems Management Journal, no. Special issue on Enterprise Mobility.

Sørensen, C. & D. Gibson (2004): Ubiquitous Visions and Opaque Realities: Professionals Talking About Mobile Technologies. INFO: The Journal of Policy, Regulation and Strategy for Telecommunication, Information and Media, vol. 6, no. 3, pp. 188-196.

Sørensen, C. & D. Gibson (2008): The Professional's Everyday Struggle to Ubiquitize Computers. In Computerization Movements and Technology Diffusion: From Mainframes to Ubiquitous Computing, ed. M. Elliott and K. L. Kraemer. Medford, NJ: Information Today.

Sørensen, C. & D. Pica (2005): Tales from the Police: Mobile Technologies and Contexts of Work. Information and Organization, vol. 15, no. 3, pp. 125-149.

Sørensen, C., Y. Yoo, K. Lyytinen, & J. I. DeGross, ed. (2005): Designing Ubiquitous Information Environments: Socio-technical Issues and Challenges. New York: Springer. 0387275606.

Stewart, I. (2007): Why Beauty Is Truth: The History of Symmetry. Basic Books Inc.

VeriChip (2008): http://www.verichipcorp.com/.

Warwick, K. (2002): I, Cyborg. London: Century.

Wegner, P. (1997): Why Interaction is More Powerful Than Algorithms. Communications of the ACM, vol. 40, no. 5, pp. 80-91.

Weiser, M. (1991): The Computer for the Twenty-First Century. Scientific American, no. September, pp. 94-110.

Whittaker, S., D. Frohlich, & O. Daly-Jones (1994): Informal workplace communication: What is it like and how might we support it? In ACM 1994 Conference on Human Factors in Computing Systems, Boston, MA, ed. B. Adelsom, S. Dumais, and H. Olson. ACM Press, pp. 131-137.

Whittaker, S., Q. Jones, & L. Terveen (2001): Managing long term communications: Conversation and Contact Management. In Thirty-Fourth Hawaii International Conference on System Sciences (HICSS-34), ed. R. Sprague Jr. Maui:

Wiberg, M. (2001): In between Mobile Meetings: Exploring seamless ongoing interaction support for mobile CSCW. PhD Dissertation. Department for Informatics, Umeå University.

Wiberg, M. & S. Whittaker (2005): Managing Availability: Supporting Lightweight Negotiations to Handle Interruptions. ACM Transactions of Computer-Human Interaction, vol. 12, no. 4, pp. 1-32.

Winograd, T. & F. Flores (1986): Understanding Computers and Cognition: A New Foundation for Design. Norwood, New Jersey: Ablex Publishing Corp. 0-89391-050-3.

Wiredu, G. (2005): Mobile Computing in Work-Integrated Learning: Problems of Remotely Distributed Activities and Technology Use. PhD Dissertation, London School of Economics and Political Science. http://is.lse.ac.uk/research/theses/

Wiredu, G. & C. Sørensen (2006): The Dynamics of Control and Use of Mobile Technology in Distributed Activities. European Journal of Information Systems, vol. 15, no. 3, pp. 307-319.

Yates, J. (1989): Control through Communication: The Rise of System in American Management. Baltimore: The Johns Hopkins University Press. 0-8018-3757-X.

Communities of Practice: Trajectories and Social Identities through Blogging

Patchareeporn Pluempavarn
School of Management, The University of Bath, Bath UK.
Email: pp225@bath.ac.uk

Abstract

The emergence of the Internet has given opportunities for new spaces to be developed and new communication tools to facilitate virtual interactions. These spaces and tools have enabled the emergence of online communities by providing greater opportunities for people to escape from the constraints of direct interactions, physical appearance and disability. By using electronic communications, people are now able to control how they present themselves and create their own online persona. Because of this ability, more people become part of various virtual environments, either to play video games, discuss hobbies or news-relate topic, find support for difficult offline situations, or ask, find and exchange information related to one's job.

Not only the number of these virtual communities is increasing rapidly, but there is also an increase in the different forms of these communities. One prominent new type is the blogging community. Blogs, as one of the latest emerging tools for communication, are gaining widespread popularity and becoming increasingly common. Despite the fact that their popularity has grown almost exponentially, there is limited knowledge about how individual members become involve and identify themselves with such communities. Therefore, this research has tried to investigate how people using blogs to become accepted at different levels within virtual communities and how the social identity of individual bloggers influences and is being influenced by the blogging community.

These issues are explored by using qualitative methods in selected blogging site and analyzing blogs from bloggers. Documentation, interviewing and participant observation were the main methods adopted. The latter in particular has played a key role in the research. For the purposes of this study, a blogging site has been carefully chosen. The researcher joined the site and for 3 years and also participated in the community's activities, posting blogs, videos, photographs, and making comments on others bloggers. Further to these, semi-structured interviews were used to collect primary data. Some of the questions were prepared in order to collect core data and allow the interviewees to express their thoughts and opinions, whilst other unprepared questions were asked as appropriate. There were 20 people interviewed who volunteered to take part in the study. The interviews were undertaken via instant messaging (IM) by arrangements due to the geographical dispersion between the interviwer and the interviewees.

Data from blog posts, interviews and observation field notes are analyzed, demonstrating how social identities are created in blogging communities and how individual members move their status from one trajectory to the others. The blogs are interpreted in relation to

Tajfel's social identity theory and members of the communities are categorized based on Wenger's Community of Practice Trajectories.

Analysis reveals that the content of each blogging site, when contextualized, provides rich information about the blogger, related to their identity. Although there is high diversity among users, there are similarities between them which can be group according to Wenger's theory into 5 trajectories: peripheral, inbound, insider, boundary and outbound. Members are catagorized by using information they provided on their profiles and blogs, and also their observed interactions within the communities. Moreover, social identities are created in blogging communities and these have an effect on members as well as on the community in general.

Making a Cosmopolitan? International Employees in 21st Century India

Martina Mettgenberg- PhD Candidate at Manchester Business School, UK

Supervisors: Prof Debra Howcroft and Dr Brian Nicholson
email: martina.mettgenberg@dom01.mbs.ac.uk

ICTs have transformed business processes and especially in the services industry enabled the global distribution of production and subsequent division of labour (Castells: 2000). Since the production of services are driven by human skills and knowledge, the availability of human resources is key to successful division of labour in the services industry.

For the so-called human resources this poses opportunities and challenges in the local and global context, which have been documented in the popular and academic literature to varying degrees. In the context of India, where this research is based, there are numerous contributions that concern local population's opportunities as well as those outlining how it traps them in low-skilled jobs for instance. Equally there have been many contributions looking at expatriate employees' opportunities and difficulties, which either celebrate or criticize current conditions and/or offer solutions or identify best practices. The following contribution adds to this body of knowledge through an ethnography of early-career trans-national professionals, who hope to use the global economy to their advantage. It is interpretivist and does not yet celebrate or condemn. However it looks sharply at the practices and mindsets of young professionals who start their life in/on the global employment market and thus debates what is an "international manager" or "global leader' and how these are made (Cavusgil: 2008, Brown: unknown, Iniguez: 2006).

To this end, the research looks at three issues:
- personal background and current context of transnational professionals
- current practices and building of friendship networks as a means to materialise expectations and an expression of mindset
- future aspirations

Ultimately, it aims to understand ideas about cosmopolitanism (Beck: 2006, Vertovec and Cohen: 2002) and a global mindset (Beechler, Taylor, Boyacigiller and Levy: 2007) through the balance of these three things.

Method and Relevance

Two years of living and working in India's Knowledge-Process Offshoring (KPO) industry resulted in a variety of findings (25 interviews with a selection of former colleagues, 6 comparative interviews, fieldnotes from participant observation and lived experience, and extant texts), which are analysed using grounded theory methods, and are the basis for an ethnography that lies at the intersection of organisation studies, international business/IHRM and information systems.

It falls into the mould of work on mobile professionals by Masao Kakihara (2003), Magdalena Nowicka (2007) and adds to debates within the two streams of ICIS 2008 'Social Aspects of Information Technology' and 'Global Information Systems Management'.

Aim and Objective of Presenting at OASIS

Since the material is very broad, deep and rich and since this is an interdisciplinary research topic straddling anthropology/ethnography, information systems, international business and organization studies, I am applying the research to different disciplines. I want to share and discuss the findings at this forum in order to benefit from the OASIS/ICIS audience, but also to

contribute new knowledge to attendees. Moreover, I am keen to see what other participants work on and potentially comment.

Bibliography

Beck, Ulrich (2006): The cosmopolitan vision, Polity Press: London

Beechler, Taylor, Boyacigiller and Levy (2007): "What we talk about when we talk about 'global mindset': Managerial cognition in multinational cooporations", Journal of International Business Studies, Vol.38, No. 2, pp.

Brown, Frank (2008): "The global business leader",
http://knowledge.insead.edu/contents/frankbrown.cfm accessed on various occasions

Castells, Manual (2000): The rise of the network society, Blackwell: Oxford

Cavusgil, Tamer (2008): "Teaching Workshop for International Business"
(http://www.mbs.ac.uk/research/ciber/seminar-abstracts.aspx and
http://www.mbs.ac.uk/research/ciber/Bex.mov)

Iniguez, Santiago (13 Sept 2006): "Cosmopolitan Managers",
http://www.deanstalk.net/deanstalk/2006/09/cosmopolitan_ma.html accessed on various occasions

Kakihara, Masao (2003): "Emerging Work Practices of ICT-Enabled Mobile Professionals", accessed via
http://www.lse.ac.uk/collections/informationSystems/PhDProgramme/abstractsOfPhDTheses/since1995/kakihara.htm

Nowicka, Magdalena (2007): Transnational Professionals and their Cosmopolitan Universes, Campus: Munich

Vertovec, Steven and Cohen, Robin (2002): Conceiving Cosmopolitanism: Theory, Context and Practice, OUP: Oxford

THEORIZING THE IT-ARTIFACT IN INTERORGANIZATIONAL INFORMATION SYSTEMS (IOIS)

Stefan Schellhammer
European Research Center for Information Systems (ERCIS)
Department of Information Systems, The University of Münster,
Leonardo-Campus 3, Münster, Germany
stefan.schellhammer@ercis.de

In their seminal article Orlikowski and Iacono have called on IS scholars for more attention to their core subject matter – the IT artifact (Orlikowski, Iacono 2001). In a current research project this unresolved aspect became problematic. In this project we traced back the origins of an electronic ordering system over a period of twenty years. It seemed that the system exhibited an unexpected degree of stability. The question arose what we actually mean by "the" system. The answer turned out to be non-trivial and directly connected to the article cited above. This abstract introduces some preliminary thoughts on the concept of identity of IOIS which is intended to inform future research on this topic.

Stability of an object always refers to at least two points in time. To term an object as stable or not is the result of an evaluation of the object at these points in time. A system can probably never be expected to remain identical. However, an analysis in this strong form misses the point. The point of interest is, why does "The" system persist over time, despite changes. What aspects of the system account for the system to be regarded as "The" system over periods of time? Hence, what constitutes its identity to be regarded as the same system?

Instead of focusing exclusively on material aspects a concept of technology is proposed here that is more closely related to the notion of socio-materiality (Orlikowski, 2007). In this regard the identity of an artifact is revealed by the interaction of a person with the artifact. Therefore each person interacting with the system perceives a different part of its identity. Hence, a system may have several "identities" or "parts of identity" for "A" group of human beings. The identity of a system is formed by the human being over the course of interactions with it. As these interactions take place in different contexts the artifact may have different identities or parts of identity for a person. In the case of IOIS users residing in different organizations are interacting with different parts of the system that do not necessarily overlap. Different perceived identities may therefore be a result of

a different perception of the same part of the system or the perception of different parts of the system. The complexity of the identity construct arises from multiple dimensions. Only some are mentioned here. First, human beings engage with the system differently and may assume during their interaction different roles. Some parts of the system are directly experienced while others are transparent and hence, only indirectly experienced. The same person may perceive a system differently depending on the context in which the interactions take place. People may perceive a system differently at different points in time.

The perception of the system may further be informed by (I) alternative systems of interaction (directly or indirectly available), by (II) prior versions of the system (inscribed history of the system), or by (III) affordances coming from the environment.

The physical properties of a piece of technology structure to a certain extent the way it is used, but they do not determine it. Hence, technology may represent and sustain different things to people. This interpretive flexibility is essential for the concept of identity as proposed here. It is the technology-in-practice which informs the perception of identity (Orlikowski, 2000). An IOIS is a socio-technical system that has to be analyzed as such in order to explore its identity for organizations and its users. Exploring the concept of identity may thus contribute to a better understanding and conceptualization of the IT-artifact in IS research.

Reference List

Orlikowski, W. J. (2000). Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations. *Organization Science, 11*(4), 404–428.

Orlikowski, W. J. (2007). Sociomaterial Practices: Exploring Technology at Work. *Organization Studies, 28*(9), 1435.

Orlikowski, W. J., & Iacono, C. S. (2001). Research Commentary: Desperately Seeking the" IT" in IT Research--A Call to Theorizing the IT Artifact. *Information Systems Research, 12*(2), 121.

TOWARDS NEW MODELS OF COLLECTIVE STRATEGY:

BLOGS AS A STRATEGIC TOOL

Muriel Mignerat & Laurent Mirabeau
Telfer School of Management, University of Ottawa, Canada

ABSTRACT

Blogs have emerged in the Web 2.0 paradigm in which a community of people interested in a set of topics dialogue over the internet. This research investigates the use of corporate blogs by Canadian companies as a strategy making tool. Results of a preliminary inquiry show that a few companies have begun to harness its potential. We propose a strategic map for corporate blogs.
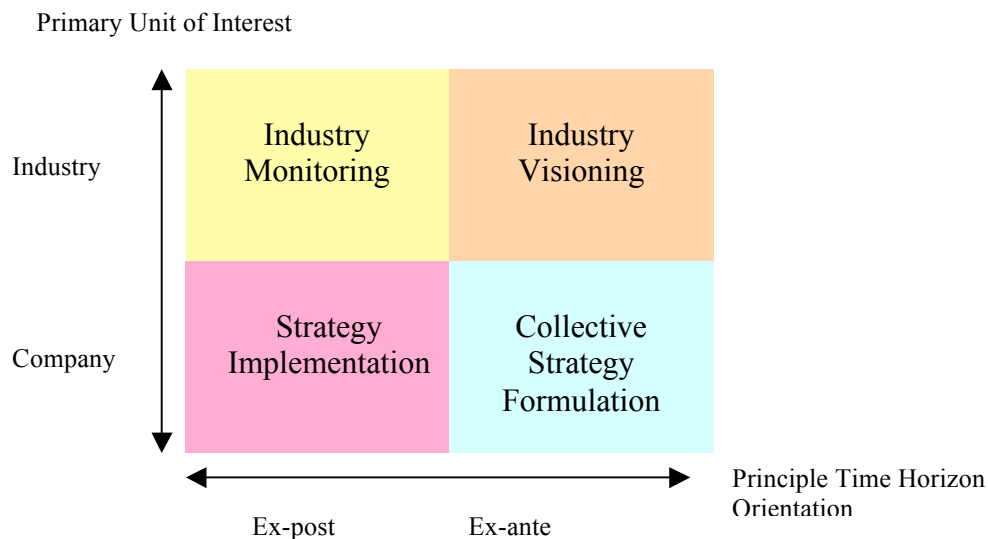
While personal blogs have proliferated on the web, companies are also paying attention to this new phenomenon as it affords the opportunity to extend traditional boundaries of the firm. It promises to engage traditional stakeholders such as customers, suppliers, employees, industry experts, governments and even competitors in real time fashion. Can blogs become an effective tool in the democratization of the strategy formulation process? Can they influence the process of strategy formulation or are they really nothing more than online public relation tools condemned to fade away like many other managerial fads? Never before have companies been able to engage their stakeholders with such speed and with a level of granularity made available by the advent of the blogs.

In a preliminary research, we surveyed (email) the Canadian business landscape to assess the development of this trend and conducted a preliminary study of the 110 biggest companies in Canada and their use of corporate blogs. We also researched Canadian corporate blogs online in search of revelatory cases. Surprisingly we found that

small, entrepreneurial companies are leading the way in the space of corporate blogs and strategy, not large established companies, with one notable exception, Nortel Networks.

As we surveyed the blogs two dimensions emerged. First, we found that some blogs focused mainly on the company itself while others discussed the industry at large. This shows variability in the primary unit of interest of the corporate bloggers. Second, we noticed a difference in the time horizon orientation. Some blogs featured discussions and debates about past events, acting as feedback engines, while others seemed to be more concerned with future events and visioning discussions. Using these two dimensions we were able to build a preliminary mapping of the field of corporate blogs:

Figure 1 – Strategic Map for Corporate Blogs

Primary Unit of Interest

Industry	Industry Monitoring	Industry Visioning
Company	Strategy Implementation	Collective Strategy Formulation
	Ex-post	Ex-ante

Principle Time Horizon Orientation

1- **Industry Monitoring** blogs have the primary purpose of bringing industry stakeholders together virtually to discuss industry events, new industry product introductions, and new industry technology standards. These blogs feature threads about the company and on competitors. (Illustration: *Hill & Knowlton Canada*)

2- **Industry Visioning** blogs focus on trends and provide a forum to discuss the evolution of the company's industry. Stakeholders of the company have an

opportunity to exchange ideas about the environment and how it may change in the future. (Illustration: *Industry Visioning at Nortel Networks*)

3- **Strategic Implementation** blogs provide the company with a virtual feedback engine. The blog acts as a platform to introduce and display new products while clients and other stakeholders get the opportunity to reflect on the company's new achievements and to comment on its strategic orientation. (Illustration: *Q4*)

4- **Collective Strategy Formulation** blogs act as strategy formulation engines. Stakeholders, both internal and external to the company, are asked to contribute ideas about what the company should do (what products to make, what markets to enter, which activities to pursue). (Illustration: *Enquisite*).

We wish to go further in this research by doing an in depth study of each category of our model.

Understanding the Need for Flexibility in Supply Chain Management Information Systems

Dr. Tim S. McLaren, Ryerson University, Toronto, Canada

Many organizations rely on supply chain management information systems (SCM IS) to improve communication and collaboration with their customers and suppliers, whether they be manufacturing, service, or governmental organizations. SCM IS are well-suited to improving a firm's operational efficiency, but often at a cost of flexibility. For organizations with highly dynamic competitive strategies in particular (what Miles and Snow 1978 classify as "Reactors"), prior research provides little guidance on making appropriate SCM IS investments to meet the conflicting goals of efficiency and flexibility.

In the author's prior study of SCM IS at nearly 250 Canadian firms and government organizations, nearly 20% of the organizations exhibited Miles and Snow's (1978) Reactor-type strategic patterns (i.e., rapid response to changing environments with little long-term planning). Most prior studies ignore Reactor-type organizations because their lack of a consistent long-term strategy is viewed as a lack of discipline. Meanwhile, other studies indicate the Reactor approach can lead to strong market performance as long as the organizational structures and technologies of the organizations are in alignment with their Reactor-type competitive strategies. The current body of knowledge appears to contain many contradictions such as the need for organizations to adopt dynamic strategies and capabilities, while at the same time adopt information systems that limit flexibility. Furthermore, recent innovations in information technologies such as web-based service-oriented architectures, XML-based electronic data interchange, and agile development methods have changed many of the long-standing assumptions about the relative inflexibility of enterprise information systems such as SCM IS.

This research investigates how highly dynamic organizations can make more effective use of SCM IS. The research questions relate to understanding how successful Reactor-type organizations select, implement, and use SCM IS to support their highly dynamic strategies. This research involves: (1) analyzing the evolving theoretical perspectives on the role of SCM IS in supporting organizational agility and dynamic capabilities; and (2) conducting comparative case studies to clarify the theoretical constructs and elicit insights into effective SCM IS deployment and usage. Using a grounded theory approach, we aim to develop a research framework for clarifying the role of SCM IS in supporting organizations with highly dynamic strategies. The case studies involve Reactor-type organizations identified through the author's prior research. Findings from the case studies will be compared and contrasted with prior theory to develop a more complete understanding of the role of information systems in supporting the conflicting goals of operational efficiency and flexibility. Further contributions to knowledge are expected in the areas of information systems planning and evaluation, dynamic capabilities and competitive strategies, enterprise information systems, operations management.

At the time of this submission, the author has analyzed some of the prior studies that provide a theoretical basis for conducting the exploratory case studies. At the time of presentation, we expect to have a clearer understanding of the relevant prior literature as well as some preliminary pilot study interview findings. The goal of the presentation is to share these ideas and obtain further suggestions on the theoretical principles to guide the case studies.

IT-enabled transparency: Assumptions, explanations, and key questions concerning a central information systems and organizational concept

Jean-Grégoire Bernard HEC Montréal (Montréal, Canada) jean-gregoire.bernard@hec.ca
R. Brent Gallupe Queen's School of Business (Kingston, Canada) bgallupe@business.queensu.ca

The potential of information technology to make an organization's activities transparent (or visible) has long been an underlying, albeit sometimes unacknowledged, theme in the information systems and organizational literatures. One of the first researcher to explicitly discuss this potential, Zuboff (1988) used Foucault's (1975) work and the notion of transparency to distinguish between the automating and the informating capacities of information technology. Since that time, IT-enabled transparency has been regularly suggested by information systems and organizational studies researchers to explain the consequences of IT-enabled work practices. The concept of IT-enabled transparency has been used in explanations for breakdowns and challenges in the coordination of work at both the interactional (Heath & Luff, 2000; Schmidt & Bannon, 1992) and at the organizational levels (Allen, 1994; Elmes, Strong, & Volkoff, 2005; Kellogg, Orlikowski, & Yates, 2006; Street & Meister, 2004); for why providing information to low status and peripheral workers of the organization may foster their commitment (Sproull & Kiesler, 1991) and their feeling of empowerment (Zuboff, 1988); as well as for why technologies aiming to increase accountability may be co-opted for impression management (Cunha, 2005). In studies using a critical epistemology, the call for transparency has been identified as a rhetorical device often employed by managers to legitimize the deployment of technology within organizations (Doolin, 2004).

This paper reviews the concept of IT-enabled transparency in the information systems and organizational literatures. Despite this growing, yet fragmented, body of research, very few studies to-date have directly examined the meaning of IT-enabled transparency. While the idea of IT-enabled transparency may seem powerful, pervasive, and intuitive, information systems and organizational researchers often do not explicitly state their assumptions concerning this notion. This use of IT-enabled transparency as an explanatory mechanism is problematic as it leads to a diversity which lacks coherence (Robey, 1996). One reason why these difficulties arise is that the idea of transparency is essentially grounded in a metaphor, making the concept quite equivocal. This paper also raises and discusses key questions which clarify how IT-enabled transparency operates and the functions it fulfills in organizations. How is a transparent organization distinguished from an opaque organization? What criteria should be used to assess whether a work practice or an organization is indeed transparent? In similar organizational contexts that use the same technology, what motivates the deployment of different configurations of features which prevent or promote access to information (Newman, 1985; Swanson, 1992)? How can material and symbolic (rhetorical) IT-enabled transparency be empirically distinguished and observed? The primary contribution of this paper is to provide a review of the assumptions and the implications of IT-enabled transparency as a key concept in the information systems and organizational literatures. By doing so, the challenges of applying such an "umbrella construct" (Hirsch & Levin, 1999) in theoretical explanations will be highlighted.

References

Allen, J. P. (1994). Mutual control in the newly integrated work environments. *Information Society, 10*(2), 129-138.
Cunha, J. (2005). *To see and not to see: Communicating and representing work in multi-level authority relationships.* Paper presented at the Academy of Management Annual Meeting, Hawaii, HI.

Doolin, B. (2004). Power and resistance in the implementation of a medical management information system. *Information Systems Journal, 14*(4), 343-362.

Elmes, M. B., Strong, D. M., & Volkoff, O. (2005). Panoptic empowerment and reflective conformity in enterprise systems-enabled organizations. *Information and Organization, 15*(1), 1-37.

Foucault, M. (1975). *Surveiller et punir: Naissance de la prison (Discipline and punish: The birth of the prison)*. Paris, France: Gallimard.

Heath, C., & Luff, P. (2000). *Technology in action*. Cambridge, UK: Cambridge University Press.

Hirsch, P. M., & Levin, D. Z. (1999). Umbrella advocates versus validity police: A life-cycle model. *Organization Science, 10*(2), 199-212.

Kellogg, K. C., Orlikowski, W. J., & Yates, J. A. (2006). Life in the trading zone: Structuring coordination across boundaries in postbureaucratic organizations. *Organization Science, 17*(1), 22-44.

Newman, M. (1985). Managerial access to information: Strategies for prevention and promotion. *Journal of Management Studies, 22*(2), 193-211.

Robey, D. (1996). Research commentary: Diversity in information systems research: Threat, promise, and responsibility. *Information Systems Research, 7*(4), 400-408.

Schmidt, K., & Bannon, L. (1992). Taking CSCW seriously. *Computer Supported Cooperative Work (CSCW), 1*(1), 7-40.

Sproull, L., & Kiesler, S. (1991). *Connections: New ways of working in the networked organization*. Cambridge, MA: The MIT Press.

Street, C. T., & Meister, D. B. (2004). Small business growth and internal transparency: The role of information systems. *MIS Quarterly, 28*(3), 473-506.

Swanson, E. B. (1992). Information accessibility reconsidered. *Accounting, Management and Information Technologies, 2*(3), 183-196.

Zuboff, S. (1988). *In the age of the smart machine: The future of work and power*. Cambridge, MA: Harvard University Press.

The contextualisation of an IS artefact: a synthetic framework grounded on a critical realist perspective on the development and deployment of IS development methodology

Daniela Mihailescu
Jönköping International Business School, Sweden
daniela.mihailescu@jibs.hj.se
Marius Mihailescu
Jönköping International Business School, Sweden
marius.mihailescu@jibs.hj.se

A dynamic business climate and technological advancements create new opportunities and challenges in the changing environment of IS development organizations. The clear distinction between the development and the implementation of Enterprise Systems software has affected the roles of involved parties, their work environment, and the knowledge needed. In response to the pressure for more efficiency and effectiveness and also flexibility and quality in Enterprise Systems implementations, new development models and methods, such as rapid product development, agile software development, and component-based development, have been suggested and are considered to be beneficial to consultants in their work. Yet, the quality of ES solutions continues to be problematic, resulting in various outcomes and, once again, questioning the value of the new IS development methodologies. What is not always clear from current IS studies, is the fact that IS development methodology represents a multi-perspective and cross-level phenomenon of study.
Over the last decade, different perspectives in research works have tried to address the challenges related to development and deployment of IS development methodologies.
We argue that existing fragmented approaches in studying IS development methodology reduces the possibility to understand and explain the challenges encountered by IS professionals in practice. Therefore, in order to develop valuable theories, tools, and educational programs with practical relevance, as several scholars indicate, it is imperative to scrutinize new approaches and provide robust frameworks to study and explain the development, deployment, and the potentials of IS development methodologies.
This work is motivated by the perception that a change of understanding and framing the study of IS development methodology is not only needed but is also a fundamental issue in order to facilitate the design of artefacts based on cumulative and integrated knowledge. This paper proposes to extend the existing body of IS research in general and ES research in particular, by exploring an alternative way to frame the study of ES implementation methodology from a critical realist perspective. The beneficial feature of this perspective is represented by a theoretical basis which allows to bridge the gap between two significant streams of IS research, i.e. the development and the deployment of IS development methodology. The framework outlined in this study is based on a synthesis of frameworks and theories of the development and deployment of IS development methodologies, and explores the characteristics and relations between social and technical objects together with potential transformations and implications in a stratified context.

Web 2.0-Enabled Self-Organized Innovation Networks of Small and Medium-Sized Enterprises for Day-to-Day Work Life Problem Solutions

by Harald F. O. VonKortzfleisch & Mario Schaarschmidt
University of Koblenz-Landau, Germany

Abstract

For many small and medium-sized enterprises (SMEs), day-to-day work life problems become similar important to what the primary activities of the value chain might hold. Examples are workers' health protection, industrial safety, work-life balance issues, higher skill shortages, conservation of energy, or pollution control. With regard to restricted resources in order to deal with these problems on-hand, SMEs can virtually extend their resource base by building self-organized collaborative open innovation networks (COINs) enabled by new IT like Web 2.0.

Within the scope of our research-in-progress project we investigate a specific SME-network in Rhineland-Palatinate in Germany, the "Wirtschaftsforum Neuwied e. V.", which consists of roughly 100 SMEs employing about 8000 workers. This SME network is very heterogeneous in nature with regard to respective size of the enterprises, number of employees, represented branches, products and services, and technological affinity: many of these firms are hardly using IT; others are maintaining a sophisticated Internet-based IT infrastructure.

According to theories about the wisdom of crowds or swarm creativity, heterogeneous groups offer a huge potential for creativity and innovation. As heterogeneity is called to be a driver for creativity it is worth to ask if and how Web 2.0 technologies are able to integrate employees from different firms under the umbrella of the same network and use their creative potential in the sense of collective intelligence.

We follow a "research by design"-approach in so far that we gradually will implement Web 2.0 functionalities into the intranet of this network in order to find out more about the respective potentials of self-organizing innovation processes. We assume that many workers are already using Web 2.0-applications in their private lives, i. e. voluntarily and self-organized and that they are therefore – at least to a certain extend – motivated to also participate in this Web 2.0-enabled SME-network, or what we call: "collaborative Web 2.0".

Against this background, the aim of our research-in-progress is to find out more about motives and incentives, necessary competences as well as new open management strategies in order to deal with the tensions between firms' hierarchical structures on the one hand and self-organized open innovation processes within collaborative Web 2.0 settings. Based on our action research approach we will also develop additional virtual

services for collaborative Web 2.0 in order to meet the specific demands of SME networks.

The Emergence of Partnership Networks in the Enterprise Application Systems Industry – The Perspective of Small and Medium Sized Partners

Thomas Kude, Jens Dibbern, and Armin Heinzl
University of Manheim, Germany, Department of Information Systems,
kude|dibbern|heinzl@uni-mannheim.de

Abstract
The structure of the enterprise application systems (EAS) industry has been undergoing significant changes during the last decades. While early systems were developed in a make-to-order fashion according to customer-specific requirements, today the systems landscape of organizations is dominated by pre-packaged, monolithic systems. In recent years, however, the dominance of integrated systems from single vendors has been countervailed by a tendency towards technological and organizational modularity. Business networks have emergence that collectively provide EAS. These networks often take a hub-and-spoke structure where a dominant vendor, the hub, provides the EAS architecture, while smaller companies, the spokes, complement the systems by building upon the hubs' platforms.

This paper takes the perspective of the spokes and seeks to understand their motivations for entering into such partner networks. Drawing on the resource-based view of the firm as well as on the concepts of dynamic capabilities and product complementarities, a theoretical framework is developed that explains partnership formation in the enterprise systems industry. It is argued that partnering is of special attractiveness for smaller organizations because it gives them access to capabilities and resources that would otherwise be difficult to obtain for them. These capabilities and resources can be broken down into three categories. First, spokes are proposed to enter into partnerships with hubs in order to gain access to complementary capabilities to innovate. While spokes are predestined to provide innovative solutions for specific niches, their capabilities to innovate at the architectural level are usually limited since this requires a profound understanding of the interdependencies between a broad range of components and the functionality of entire systems. By way of partnering with a hub organization they are able to keep up with architectural innovations. Second, spokes may enter into partnerships in order to benefit from a hub's commercial capability. Partnership with a hub may provide them with the opportunity to access and use the hub's global marketing channels. Third, we propose that spokes enter into partnerships with hubs in order to gain access to their social capital. While spokes may be renowned for their specific solutions within their niches, the hub usually has close and long-term relationships with a huge amount of customers and thus has a much higher reputation in the market.

In order to examine the relative importance of these three partnership motives, two embedded case studies were conducted. The cases represent two hub-and-spoke networks, each of them lead by a globally operating large scale EAS provider. Within each network we studied nine spokes, i.e. small-to-medium-sized organizations that entered into partnerships with the respective hub. Access to commercial and social capital was found to be a key partnering driver for all spokes. By contrast, the importance of

access to technological capabilities critically depends on the type of solution offered by the partner in relation to the hub. Based on this finding we are able to come up with a refined partnering model that includes the relative position of hub and spoke in the software services stack as a moderator.

From Click Stream to Action Stream: Exploring Web User Behavior from a Real-world Perspective

Masao Kakihara
Yahoo! JAPAN Research
ma_kakihara@yahoo.co.jp

As the Web has been diffused in our everyday lives rapidly and broadly in the last decade, the situations where we use it have dramatically varied. In the advent of the WWW, it was used only by a handful of researchers at the laboratories in universities and research institutes. Nowadays, however, the Web has become like a 'commodity' for most of the people in the developed countries. Moreover, the ways we access it have been also diversified, from the desktop PC to various devices such as PDAs and mobile phones.

In contrast to such a dramatic change of the social disposition of the Web, our understanding of behavior of the web 'users' is surprisingly unchanged; we still see the web users as though they lived only in the web world and their activities were totally isolated from the real world.

During the early stage of the social diffusion of the Web, it *was* isolated from the real world to a large extent. In fact, the Web had been used by a limited number of people in limited social contexts in a limited amount of the time. However, now we use the Web extensively in our everyday lives. Our activities on the Web are no longer 'virtual' and should rather be seen as inseparably connected to the real world. Nevertheless, our perspective to the web user behavior has been kept still confined in the web world. This is ironically because of the rapid development of web mining (Etzioni, 1996; Srivastava, J. et al., 2000). Statistically analyzing a vast amount of access log data stored in the web servers can illuminate complex online behavior of the web users, how they click hyperlinks on web pages and how they migrate from one to another. However, it offers us completely no clue about *origins* and *ends* of those streams; log data analysis cannot reveal *why* the user clicks links, opens pages and, and moves to another.

Here, we propose a radical extension of our perspective to web user behavior: *from click stream to action stream*. Given that the Web is widely utilized in our society in various ways and contexts, human online behavior should be understood not as completed only inside the web world but rather as initiated by real-world intentions and in turn bringing about certain real-world consequences. What is important for the research on web user behavior is grasping the whole steam of human action flowing from the real-world intention to the web-world activity to the real-world consequence (see Figure).

The web mining approach, focusing on click streams in the web world, is still an extremely powerful way to capture web user behavior based on detailed metrics such as page-views, the number of visiting unique users, click-through rate, conversion rate, etc. Yet it should be clearly realized that our web usage is so much socially diversified today that offline, real-world factors and their influence on online factors are more and more important to be dealt with in understanding complex behavior of today's web users.

This research is still in the early stage and we here just propose a conceptual framework for better understanding of today's web user behavior. In actual practice of the action-stream approach, some methodological and analytical challenges are ahead of us. How to link web users' behavioral data on the Web to that in the real world is perhaps the most paramount one. The approach clearly demands a combination of highly statistical, quantitative methods for log data analysis and qualitative and field-based methods for analysis of real-world factors.

Figure: A framework of action-stream approach for web user behavior analysis
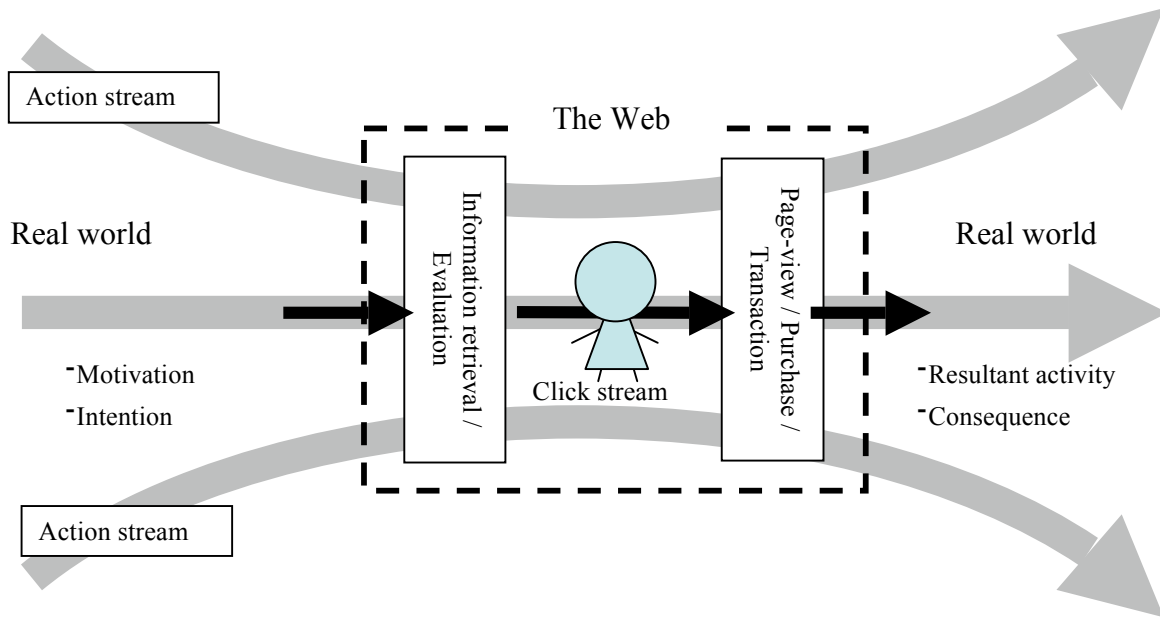
References

Etzioni, O. (1996), The World Wide Web: Quagmire or Gold Mine. *Communications of ACM*, 39(11), 65-68.
Srivastava, J., R. Cooley, M. Deshpande, and P.-N. Tan (2000), Web Usage Mining: Discovery and Applications of Usage Patterns from Web Data. *SIGKDD Explorations*, 1(2).

INSTITUTIONAL ETHNOGRAPHY: A METHOD OF INQUIRY FOR RESEARCHING PARTICIPATION IN INFORMATION SYSTEMS DEVELOPMENT

Alain Ross
Athabasca University
Athabasca, Canada

End-user participation has been argued to be important in IS development and implementation in order to create better quality information systems and to build user investment in the eventual information system (Markus & Mao, 2004). It is also seen as an individual's right to have an impact on the systems which affect their work lives (Hirschheim & Newman, 1991). Yet, participation has been seen to be problematic because the connection between participation and information system success has been tenuous. Further, participation has often been seen as a kind of pseudo-participation in which user influence has been limited (Howcroft & Wilson, 2003).

Much research has been directed at understanding what stops participation from achieving its desired outcomes. Individual cognitive limitations, communication difficulties and task complexity have all been held up as specific issues (Browne & Ramesh, 2002; Vessey & Conger, 1994; Stacy & McMillian, 1995). Recent research has suggested that social and political issues act as a barrier (Howcroft & Wilson, 2003; Ross, 2007).

One method of inquiry, Institutional Ethnography (IE), provides a new way of looking at participation and brings both the social and institutional into focus. IE arose out of the feminist work of Dorothy Smith in her efforts to develop an alternative sociology that "builds knowledges of how relations of ruling operate from the standpoints of the people participating in them …" (Howard, Risman & Sprague, 2005: xii). In IE, the researcher is looking at the social, where this is defined as the coordination of people's ongoing activities with those of others (Smith, 2005). Using typical ethnographic methods such as interviewing and participant observation, IE begins at the lived, everyday/everynight experience of people, not as the focus of study but as the entry into seeing "how things happen". This focus on the actuality of people's lives opens for view what Smith calls the "ruling relations", the material ways that people's work in accomplishing their lives are socially organized.

IE provides both the theoretical perspective and research methods necessary to bring participation into focus through the standpoint of the participant. This in itself provides a new perspective for participation research, which has rarely looked at participation through the eyes of those who do the actual work. Even more, though, IE allows us to map out how participation happens the way that it does (Campbell and Gregor, 2004). "The aim of the institutional ethnographer is to explore particular corners or strands within a specific institutional complex, in ways that make visible their points of connection with other sites and courses of action" (Smith, 2006: p. 17). In so doing, an IE perspective on participation will bring to light the macro forces – institutional, organizational and social – that coordinate and mediate participation.

This presentation introduces Institutional Ethnography as an important mode of inquiry and considers how IE might bring new insights on participation in information systems development.

References

Browne, G. J., & Ramesh, V. (2002). Improving Information Requirements Determination: A
  Cognitive Perspective. *Information and Management,* 39, 625-645

Campbell, M. & Gregor, F (2004). *Mapping Social Relations: A Primer in Doing Institutional
Ethnography*. Lanham, MD: AltaMira Press.

Hirschheim, R., & Newman, M. (1991). Symbolism and Information Systems Development:
  Myth, Metaphor and Magic. *Information Systems Research*, 2(1), 29-62.

Howard, J. A., Risman, B. and Sprague, J. (2005) in *Institutional Ethnography: A Sociology for
People*, ed. Dorothy Smith. Lanham, MD: AltaMira Press.

Howcroft, D., & Wilson, M. (2003). Paradoxes of Participatory Practices: The Janus Role of the
Systems Developer. *Information and Organization*, 13, 1-24.

Markus, M. L. & Mao, J. (2004). Participation in Development and Implementation – Updating
an Old, Tired Concept for Today's IS Contexts. *Journal of the Association for Information
Systems*, 5(11-12), 514-544.

Ross, A. (2007). A Habermasian Perspective on the Requirements Process in Software
Development. (Doctoral Dissertation, University of Calgary, 2006).

Smith, D. (2005). *Institutional Ethnography: A Sociology for People*. Lanham, MD: AltaMira
Press.

Smith, D. (2006). *Institutional Ethnography as Practice*. Lanham, MD: Rowman & Littlefield
Publishers, Inc..

Stacy, W., & MacMillian, J. (1995). Cognitive Bias in Software Engineering. *Communications
  of the ACM*, 38(6), 57.

Vessey, I. and Conger, S.A. (1994) Requirements Specification: Learning Object, Process and
  Data Methodologies. *Communications of the ACM*, 37(5), 102-113.

Organizational Implementation in Crisis: 104 Issues in EPR Implementation

Riikka Vuokko, Anne Forsell, Eija Karsten
Åbo Akademi University, Dept. of Information Technologies
Joukahaisenkatu 3 A, 20520 Turku, Finland
Email rvuokko@abo.fi, anne.forsell@medbit.fi, ekarsten@abo.fi

In this study, we approached hospital working as a set of complex and networked practices that are characterised by dynamism. Hospital working is also characterised by various organizational implementation projects that tend to challenge working at several levels of action as individual, organizational, professional and ethical issues emerge. Our study concerns an organizational implementation and rejection of using a new electronic patient record system (EPR).

Organizational implementation of an information system can fail for a number of reasons. Based mainly on a set of semi-structured interviews, we identified 104 different reasons the users gave for the failure of implementing the EPR system in a surgical clinic. We classified these reasons with the issue order model introduced by Star and Ruhleder (1996). The model follows Bateson's (1979) levels of learning and portrays the problems the users meet on three levels: the first one for simple and technical issues, the second one for more complex and possibly combined issues, and the third one for political or ideological issues. We were able to identify 48 first order issues, 36 second order issues of which four were due to mutual influence of several first level issues, and 20 third order issues. Slowness of use was one of the first order issues that came up in many ways, such as, in waiting for the system to log you in, in finding the right classification headings under which to update a patient data set, and in working around breakdowns of the system. Together two first order issues, such as slowness of use and instability of the system emerged as the second order issue identified as information breakdowns. As the EPR couldn't sufficiently keep up with surgeon's orders, laboratory orders, treatments and medications, the hospital staff members started to voice their hesitations about using the system at all. As third order issues the mistrust on the EPR was identified as professional and ethical concerns validating work practices and fear of malpractice or endangering patient safety.

This tree level classification is not the only way to see the issues, as something that appears as a first order issue to a middle manager might be seen as an insurmountable third order issue for a worker. Moreover, all the issues are interrelated, and solving one issue might have substantial influences on the others. Also, the issues seemed to accumulate and cluster on points. Star and Ruhleder (1996) emphasise the relations between actors, organization, information technology and information with the issue order model. They argue that in the context of actions, new information technology has an organizational impact. However, changes in the organization don't necessarily have impact on information technology. Still, in time, the practices and use of information technology tend to evolve and be transformed.

References

Bateson, G. *Steps to an Ecology of Mind*, Ballantine Books, New York, 1997.
Star, S.L., and Ruhleder, K. "Steps towards an ecology of infrastructure: Design and access for large information spaces", *Information Systems Research* (7), 1996, pp. 111-135.

Innovations, IS departments, Organizations and the Society

Samuli Pekkola
Department of Business Information Management and Logistics
Tampere University of Technology, Finland
samuli.pekkola@tut.fi

Position paper

Information systems (IS) have a strategic impact on organization's business and processes (c.f. Boddy et al. 2005; McNurlin & Sprague 2006; Luftman 2004). This appears as improving existing practices or as enabling new business opportunities. McNurlin and Spargue (2006) have categorized the tasks of IS department as follows: 1) leading, i.e. creating a vision by understanding the business; 2) governing, i.e. establishing an IS governance structure; 3) investing i.e. shaping the IT portfolio, and 4) managing i.e. establishing credibility and fostering change. They all emphasize the ability to make different kinds of innovations, from technical solutions to suggestions for better connections between technologies and business processes.

Drucker has famously defined innovation as the "change that creates a new dimension of performance". This dimension is interesting. How can the performance of the IS department affect and support the performance of the whole organization? Respectively, how can innovations, originating from IS department, imply to the society?

Capgemini's global CIO survey 2008 discusses innovations. They identified the top innovation organizations sharing five characters: business leaderships understand IT, the relationship between the IT and the business is effective, IT services are delivered in order, CIO does not report to CFO, and IT is a partner to the business rather than just a supplier. Also, there is a strong correlation between the delivery of high quality IT services and the business' ability to innovate. Yet IS departments are not evaluated according to their support for innovations, nor they have their internal processes in order. 71% of IS departments had not defined an innovation process, 56% does no allocate people to innovations, and 64% does not budget for innovation. In other words, although innovations are expected from IS departments by both the business and IS departments themselves, the organizations are not prepared.

Why so?

We sent a questionnaire to individual employees where they were asked about their perceptions on learning and its organizational support. We received 195 responses (software engineers, project managers, other managers and executives, other experts). Learning was considered generally important (87%). Most often the respondents had learned business domain knowledge (58%) and different kinds of tools (53%). Also, the bigger the organization, the more business domain knowledge, human communication, and high level design were learned. In terms of organizational support, most respondents stated their organization supports learning, and their managers acknowledge its importance. However, 67% said they have no time to learn, 53% saying their work objectives are unclear. Also, the most common learning obstacle was the lack of time to search for information.

Our study identifies some issues: Although the importance of learning is acknowledged, it is not supported in practice. Employees want to learn but as their work objectives are

unclear, they do not precisely know what they should study, nor they have time for it. Also, as innovations are about exploring, the ability to innovate is evidently weak. If a person has no time, how can innovations can be expected? Yet the situation is not so miserable. IT departments are paying attention to learning. The willingness to understand business is emphasized as business domain knowledge is often acquired. Governance structures or the lack of tools to information retrieval are not usually problems. Yet, in terms of management, learning is not managed. Instead IS departments spent their time in managing their daily operations, not learning.

Although the importance of good IT services for organizations and the business to innovate is emphasized, IS departments themselves are not prepared for such practices. If they cannot offer new technical innovations to the business, how can the business take them to the society? This lack of technological innovations may, in turn, hinder the development and deployment of innovations at large. Thus, to support innovation society and society to innovate, we have to start, similarly to organizations, in developing our IS foundations, IS departments so that innovations may boom to enable and support further innovations.

References

Boddy, D., Boonstra, A. & Kennedy, G. 2005. *Managing Information Systems: An Organisational Perspective*. FT Prentice Hall.

Capgemini 2008 Global CIO Survey 2008: The Role of the IT Function in Business Innovation. *Capgemini Consultating*. available on request.

Luftman, J.N. 2004. *Managing the Information Technology Resource: Leadership in the Information Age*. Pearson Prentice Hall.

McNurlin, B.C. & Sprague, jr. R.H. 2006. *Information systems management in practice*. 7th edition. Pearson Prentice Hall.

Expertise Networks – a Framework for Intra, Inter and Global Knowledge Sharing in Professional Service Organizations

Stephen Hockema, Ph.D. in Computer and Cognitive Science (Indiana University)
Assistant Professor, Faculty of Information
University of Toronto
Joel Alleyne
Practitioner in Residence, Knowledge Media Design Institute
Adjunct Instructor and Ph. D. Candidate (Information and Knowledge Management), Faculty of Information
University of Toronto

This paper will discuss research findings to-date and outline a proposed research approach to examine and further develop the notions of *expertise networking* and its corresponding IT support needs in an inter- and intra-organizational setting. Within the legal domain, expertise networking opportunities in global law firms are examined. In the domain of health care, issues relating to the development of inter-professional education and care are examined, particularly where health care practitioners from different professions learn and practice new ways of working together to deliver optimal patient-centered care. The work of expertise researchers can be found across a number of interrelated disciplines and is rooted in fields such as cognitive science and psychology (Sternberg & Grigorenko, 2003), education (Bereiter & Scardamalia, 1993) and sociology (Evans, 2008). Researchers studying how expertise is acquired and developed in individuals and organizations have examined the relationships between experts and the relationships between experts and novices (Bereiter & Scardamalia, 1993; Collins & Evans, 2007). In parallel, researchers in the fields of information and knowledge management are focused on evaluating and developing systems and frameworks for supporting and managing experts and for finding, networking, or sharing expertise (Ackerman & McDonald, 1998). Preliminary research into expertise sharing and management has explored how IT tools can be used to augment social and human networks. These social networks support expertise development and related knowledge transfer within and across organizations of all sizes – from small and medium-sized enterprises to global organizations operating on a transnational basis. This paper relates findings from a user-centered design project in which lawyers were asked to detail the methods they would employ when trying to find an expert that was not in their area of specialty and in another city or country. The findings indicated that, in most cases, lawyers used their social network connections to traverse the firm in order to find the right resource and that these social networks operated within the organization in layers that corresponded to the year a lawyer was called to the bar (i.e. passed the bar examinations). This research paper frames these findings as "*expertise networking,*" embracing related emerging concepts such as expertise management, expertise location, and expertise sharing. Expertise networking also embraces the social, cultural, organizational and technical dimensions associated with managing, locating, and connecting expertise in organizations. Expertise networking is a

framework that provides technical scaffolding to support experts and expertise in organizations.

Researchers

Stephen Hockema joined the iSchool at the University of Toronto in July, 2006. He holds a joint Ph.D. in Computer and Cognitive Science from Indiana University, where he specialized in perceptual and linguistic development and learning, and a BSCEE and MSEE from Purdue University, where he specialized in artificial intelligence, machine learning and natural language processing. He also has many years of industry experience working in the telecommunications industry (as an intern for AT&T Bell Labs in the early 1990s, and as a software developer for Interactive Intelligence from 1999-2004) and for Intel Corporation as a microprocessor design engineer (1994-1997).

Mr. Alleyne has worked extensively across North America, Europe, and the Caribbean with organizations in professional service, healthcare, insurance, pharmaceutical, finance, and government over the last thirty years. His research interests and commitment have been in the fields of organizational informatics (assessing the impact of information technologies on organizations) and knowledge management (including areas such as e-Knowledge Markets, Expertise Networks, Expertise Management, Organizational Networks, and Communities of Practice). In 2003, he was appointed to the Entovation 100 Global Knowledge Leadership Map, which includes several global thought leaders and practitioners in the field who are playing a role in shaping the new knowledge-based economy.

References

Ackerman, M. S., & McDonald, D. W. (1998, November 14-18, 1998). *Just Talk to Me: A Field Study of Expertise Location.* Paper presented at the 1998 ACM Conference on Computer Supported Cooperative Work (CSCW '98), Seattle, WA.

Bereiter, C., & Scardamalia, M. (1993). *Surpassing ourselves : an inquiry into the nature and implications of expertise*. Chicago: Open Court.

Collins, H. M., & Evans, R. (2007). *Rethinking expertise*. Chicago: University of Chicago Press.

Evans, R. (2008). The Sociology of Expertise: The Distribution of Social Fluency. *Sociology Compass, 2*(1), 281–298.

Sternberg, R. J., & Grigorenko, E. (2003). *The psychology of abilities, competencies, and expertise*.

Cambridge, UK ; New York: Cambridge University Press.

Making sense of the slow adoption of STP technology: The Case of Taiwan Mutual Fund Industry".

Carol Hsu
National Taiwan University
Department of Information Management
Taipei, Taiwan
carolhsu@ntu.edu.tw

Yu-Tzu Lin
Ph.D. Student
National Taiwan University
Department of Information Management
Taipei, Taiwan
D94725009@ntu.edu.tw

Abstract

With the advance of information technology (IT) and the liberation of cross-border trading, the global investment fund industry is growing at an exponential rate. Particularly in Asia Pacific, an industry survey concluded that the mutual fund industry in this region is expected to reach USD 2 trillion by 2010. In responding to this potential growth, many financial institutions have concentrated their efforts on the front-office deployment of IT to leverage the Internet-enabled benefits of disintermediation and information efficiency. By comparison, little emphasis has been given to the automation of back-office operation, which is still mostly fax-based and manual processed. With the rising volume and complexity of trading business, the lack of automation and standardization in fund processing among market players, including fund houses, transfer agents and distributors to name a few, is becoming dangerously significant in terms of rising operational risks and costs.

In 2004, the XML-based ISO 20022 was approved and published as a market standard for fund processing automation, which is known as the concept of "straight-through-processing" (STP). For the past few years, a number of industry solutions have incorporated ISO 20022 as a means to promote the implementation of STP solutions such as SWIFTNet Funds, Omgeo and FundSettle. Nevertheless, the adoption and diffusion of STP in the fund industry has been very slow. For instance, in Hong Kong, the statistics from the Asia Fund Automation Consortium shows that in 2006 79% of fund distributors in Hong Kong have yet to start STP despite their show of interests.

From our perspective, STP diffusion is not only about providing a technical solution for streamlining transactions, but most importantly; it refers to articulating and aligning expectations and interests amongst various stakeholders in the fund distribution network.

Thus, this research attempts to explore how industry participants construct and interpret the concept and the diffusion of STP. In particular, the research objective is to study the phenomena of 'slow' adoption and understand the economic and institutional assumptions that different stakeholders hold concerning the adoption of STP technologies. A theoretical framework is developed based on the social construction of technology (SCOT) and pervious literature on standardization. The framework is applied to conduct an in-depth case study in the Taiwan mutual fund industry. The case study intends to unfold the technical and organizational assumptions which encourage or discourage the adoption of STP as an institutionalized practice in the fund industry. This research is currently in the process of data collection, and we expect to discuss the preliminary results in the workshop.

THE IMPACT OF INFORMATION TECHNOLOGIES
ON THE GLOBALIZATION OF WORK, SOCIETY, AND EDUCATION
IN BOSNIA AND HERZEGOVINA: Part I, Education

Dejan Simeunovic, Bojan Neskovic, and Nancy L Russo
Slobomir P University, PF 70 Slobomir,76 400 Bijeljina, RS, Bosnia & Herzegovina
Contact: nrusso@niu.edu

The goal of the overall research project is to investigate the influence of information technologies on work, society, and education in Bosnia and Herzegovina (B&H) and the influence of socio-cultural elements on the development of its information sector. The initial phase of the project examines the impact of IT on education.

Life in Bosnia and Herzegovina has been quite turbulent since the last civil war (1992–1995). The country is moving forward with small steps in all aspects such as politics, economics, education [1], ecology, tolerance, intercultural awareness, etc. The field of information technology is one of the most important components of industrial development (as everywhere else in the world), but it is changing quite slowly in Bosnia and Herzegovina, especially in comparison to developed western countries. Economic factors influence the acceptance of IT and use of computers to a greater degree in B&H than in neighboring countries. The average monthly salary in B&H is approximately 350 EUR whereas in Croatia it is 750 EUR. However, ADSL internet access costs 50 EUR per month in B&H [3] and only 22 EUR in Croatia for the same package [4]. This, combined with the fact that well over 60% of the population lives in rural areas, means that internet penetration is quite low.

There has been no significant research done on the impact of IT or the extent of use of IT in B&H. It is essential, however, to understand the situation for much-needed investment activities to occur. For example, companies wishing to establish themselves would need to know the level of IT use, experience, and competence of potential employees as well as of customers. This research can uncover some of the reasons for the slow development of the information sector in B&H and a long-term goal is to propose solutions for some of these issues.

Methods for collecting relevant data for this research will be semi-structured interviews (questions available from authors) and observations on education-related activities. Both educators and students from secondary school and university levels will be included. (There is still little use of computers in primary school in B&H.)   As expressed by Trauth [2], this ethnographic-type approach to the research provides flexibility that typical questionnaires do not. Interviews allow the researchers to capture data on factors that cannot be identified in advance, and in combination with observation allows the researchers to distinguish between what subjects say they do and what they actually do. Literature and other resources (such as web pages dedicated to the subject of the development of the information sector in B&H) will be explored for background details.

The research itself is in the beginning phase. Focus interviews have been conducted to test the interview questions and data collection is under way from the education sector. Initial results will be available for presentation at the workshop. The research will continue with exploration of other areas of impact of IT on work and society in B&H, and how IT has contributed to the globalization of these. Feedback on any methods of improving the outcome of this important work will be appreciated.

References

[1] McCreight, Richard D. *Education in Bosnia: Religion, Language, and Control*. New Forums Press, Stillwater, OK, 2002.

[2] Trauth, Eileen M. *The Culture of an Information Economy*. Kluwer Academic Publishers, Dordrecht/Boston/London, 2000.

[3] www.teol.net/cms/view.php/6840.html

[4] www.t-com.hr/privatni/internet/maxadsl/

Implementation of Enterprise 2.0 and its Value in Organizations

Sean Lew
Department of Information Systems
The University of Melbourne
Parkville, Victoria
Email: Sean.Lew@gmail.com
Rens Scheepers
Department of Information Systems
The University of Melbourne
Parkville, Victoria
Email: R.Scheepers@unimelb.edu.au

Enterprise 2.0 is the use of emergent social software platforms within companies, or between companies with their partners or customers. Enterprise 2.0 software includes technologies like wikis, blogs, social bookmarks, project management tools and discussion forums. The key themes in Enterprise 2.0 are social networking and collaboration. Many organizations have embarked on this trend and implemented such technologies, hoping to achieve increased efficiency, reduced cost of collaboration, improved knowledge retention, client and staff satisfaction and increased innovation. However, organizations have experienced issues after implementing Enterprise 2.0 and many of these issues are poorly understood. Until now there is a lack of academic research in this area to examine (1) the merits of different implementation approaches of Enterprise 2.0, and (2) specific benefits that organizations can gain from Enterprise 2.0 use.

Enterprise 2.0 stems from previous research in areas such as social network analysis, organizational behavior, inter-organizational collaboration, knowledge management and intranets. However, with the recent advent of Enterprise 2.0 software, many of the previous areas of research are now integrated into a single platform delivered to organizations.

This research uses organizational theory and social network theory as a basis of its investigation. Organizational theory will help to explain how people interact at work and social network theory will help explain how online social connections can be created.

We anticipate that this research will lead to (1) a better understanding of the actual benefits that organizations can achieve through their enterprise 2.0 initiatives, (2) the key issues that organizations typically encounter, and (3) some examples of best practices. We thus study both the process of implementation and its outcomes, and the relationship between these.

The research design will use three modes of investigation. Firstly, an integrated approach is adopted since the concept of Enterprise 2.0 is relatively new. An analysis of the past literature and research in which Enterprise 2.0 grew from will be necessary. An understanding of the key concepts, benefits and issues faced by individual areas of interest will produce a set of hypotheses and questions to be asked during the data collection stage.

Secondly, multiple case studies will be conducted using semi structured approach to uncover the benefits and issues faced by organizations when using Enterprise 2.0 software. This allows cross case analysis and the ability to derive common themes in such forms of implementation. The results from the case studies will be used to frame the questions for the larger survey following this. The participants will be users at all levels to understand the various benefits and issues faced at different levels of the organization.

Lastly, a survey will be conducted to test and refine the theoretical model (developed from the earlier cases) across multiple organizations. In this phase, we will investigate more broadly the common benefits and issues that organizations are experiencing, as well as the factors for the success or failure. This phase will thus integrate the specific details of Enterprise 2.0 implementation and the benefits and issues experienced across multiple organizations.

Extended Situations and Virtualised Forms of Technical Support

Neil Pollock, Robin Williams, Luciana D'Adderio and Christine Grimm

University of Edinburgh, Scotland, UK

Abstract

This paper addresses the seemingly implausible project of moving the technical support of complex organisational technologies online. We say 'implausible' because from the point of view of micro-sociological approaches the diagnosis and resolution of technical failures are an intrinsically local affair: problems are seen to be 'context specific'; and their resolution requires support staff to have knowledge of, and close interactions with, the setting where the failure has occurred. However, at the same time, we find IT vendors increasingly developing virtualised forms of support seemingly able to disembed and distribute problems to where there is available expertise. In providing an ethnographic study of the novel form of support provided by a large software company we attempt to shift the debate from understanding how technological problems are 'entangled' within settings to how problems can be 'disentangled' and 'exported' across settings. In doing so, we describe how problems are reported within an electronic portal, the means by which the vendor 'lifts out' the problems from their contexts, and then how they are 'passed' around a set of globally distributed labs in search of available expertise. It is this latter aspect — what we describe as the 'practice of passing' - which constitutes an unusual but highly consequential practice. The first of the two empirical aims of the paper is to characterise this novel means of resolving problems and to show how it also has a number of unexpected and perverse consequences. Namely, since the once strong ties between support staff and users have been 'cut', it is now common for particularly difficult problems to be 'ping ponged' to other parts of the organisation (or world)with no one taking responsibility for them. The second aim is to show how the vendor continually attempts to regulate and modify the support process - what we describe as the onset of a 'passing regime' — in an attempt to rid the portal of such unwanted consequences. The conceptual aim of the paper is to move away from the current localised notion of the 'situation' in the narrow sense and to focus on the 'extended situation'.

Personal Web page: http://homepages.ed.ac.uk/npollock/

Project Web page: http://www.erp-online.co.uk

New Book Out:
Software and Organisations: The Biography of the Enterprise-Wide System or How SAP Conquered the World (with Robin Williams, published by Routledge).
http://www.routledgebusiness.com/books/Software-and-Organisations-isbn9780415403979