Juxtaposed practices in social software projects

Natalie Hardwicke
Business Information Systems
University of Sydney
Sydney, NSW
Email: natalie.hardwicke@sydney.edu.au

Abstract

Traditional IT introduction approaches tend to follow a goal-driven, top-down logic, whereby technology is selected and then imposed on end-users. This paper posits that such approaches have been embodied by client organisations wanting to introduce enterprise social software (ESS) inside their organisation. However, as a type of malleable technology requiring end-user appropriation, traditional approaches are not appropriate for ESS. Through an embedded researcher relationship with a case organisation, a research approach and preliminary findings are presented in which the juxtaposition of two, client and consultant, practices align with either a top-down or employee-centric view regarding ESS. By utilizing a practice breakdown lens, this paper explores the tensions that are revealed in ESS projects as the two practices struggle to socially construct a joint solution for ESS inside client organisations. This unique context affords studying the particular nature of ESS and solutions for its uptake, as breakdowns foreground the role of the end-user in malleable technologies.

Keywords: IT projects, enterprise social software, malleable technology, practice theory, qualitative research

1   Introduction

A long-standing research area in IS is the introduction of IT inside organisations (Rivard and Lapointe 2012). Traditionally, research in this area has explored enterprise software (ES) based on what an organisation wants to achieve with the technology's introduction (Bharadwaj et. al 2013). In line with this thinking, technology is typically seen as something that imposes itself on employees who are expected to adopt and use the features of a certain technology product in order for the organisation to achieve a desired goal (Venkatesh et. al 2003). Enterprise social software (ESS), however, has been shown to have broad usage potentials bounded by organisational context (Riemer and Richter 2012). Instead of achieving a known goal, social technology is malleable by nature, which means its particular applications cannot be fully determined a priori as benefits are based on voluntary uses that are dynamic and employee-driven (Richter and Riemer 2013). This suggests that traditional approaches have limited applicability for ESS in which end-user behaviour is vital for the technology's success.

Through my embedded relationship with a social technology consultancy business, the Ripple Effect Group (REG), I have witnessed a phenomenon in which a contrast between the traditional and an end-user view of ESS has emerged in projects of ESS introduction and usage. In preliminary ethnographic accounts, members of client organisations were found to embody traditional top-down implementation thinking, in which the role of end-users is downplayed (Raeth et. al 2012). This in turn creates tensions with REG who take an employee-centric approach. Through the notion of practice 'break downs' (Sandberg and Tsoukas 2011), the underlying assumptions between the two practices have been revealed and subsequently elicit project tensions, which serve two purposes. Firstly, breakdowns and tensions provide an avenue for me to explore beliefs and assumptions held by each practice as the joint ESS project unfolds. Secondly, breakdowns and tensions also appear to play a role in how practitioners see themselves and in each other in relation to the same project.

This research-in-progress paper therefore presents a study approach and preliminary ethnographic accounts that can explore the juxtaposed beliefs of two practices. By directly being involved in several projects as a practitioner, and taking retrospective field notes and writing memos as a researcher, I have been able to see how the client practice embodies contrasting beliefs to that of the REG practice. By further engaging with the REG practice for an additional twelve-month period, the overall aim of this research is to compare and contrast the tensions that occur in different project contexts. This research has the potential to bridge the often-contested theory-practice divide, as well as highlight implications for IS in relation to technology introduction, phenomena and research methods.

2   Background

Before presenting my study overview and preliminary ethnographic accounts of practice-based IS phenomena, it is necessary to discuss the technology in question, enterprise social software (ESS), as this is both the invitation and output for each of REG's consultancy projects. ESS has distinct characteristics compared to its enterprise software (ES) predecessors. As the REG projects have unfolded, their clients have presented with beliefs that align to traditional ES implementation.

2.1   Enterprise Systems Implementation

Since the early 1990s, dedicated ES packages, such as enterprise resource planning (ERP) systems, have been used by organisations to automate business processes and distribute information across functional business areas (Markus and Tanis 2000). As the workplace has evolved in line with technological innovations, organisations have had to introduce or adapt the ES they use in order to stay competitive in the emerging digital economy (Burris 1998). ES has since evolved to become the backbone of the modern workplace as various software keeps organisational data, reduces cost, and streamlines business processes (Hirschheim and Klein 2012). Implementation thus refers to both the enactment of putting an organisational plan into effect, which happens to involve ES, and to the ways the software becomes integrated into employee routines (Visconti 2010).

ES implementation projects have always been precarious as many projects are regarded as failures (Ward et. al 2005). The reasons for such failure are often attributed to a particular implementation method, such as implementers following processes similar to the systems development lifecycle model in which software is selected, modified and imposed on employees in a top-down manner (Valacich et. al 2012). This method follows a task-technology-fit logic in which employees are treated as secondary and subordinately to the technology (Goodhue and Thompson 1995); and a misalignment is realised between what management wants to achieve with the introduction and rollout of ES and what actually occurs in-practice when employees start using, or not using, the software.

The need to move beyond a focus on IT itself to instead explore the underlying phenomena behind technology and its relationship with employees has been argued since the 1980s (Bakos and Treacy 1986). Despite this, there has been a somewhat organisational and empirical tradition of blaming end-user employees, or implementers, for the problems associated with ES implementation (Ward et. al 2005). Today, phenomena surrounding end-user behaviour, in addition to implementation approaches and their subsequent challenges, become ever more prescient with the introduction, rollout and ongoing management of enterprise social software.

2.2 The Malleability of Enterprise Social Software (ESS)

Unlike its enterprise software predecessors, which are typically built and introduced to help an organisation realise a specific, known goal, ESS is malleable by nature. This means that its various platforms, channels and tools are typically introduced as 'blank slates' in which intended usage cannot be determined a priori by either implementers or employees, but have to emerge bottom-up (Al-Mashari et. al 2003; Richter and Riemer 2013). The uses and benefits that ESS will therefore have within a particular organisation are based on voluntary uses that are dynamic and driven by end-user employees themselves. As a result of this, ESS offers employees numerous ways of working across a range of tasks or scenarios, as opposed to prescribing a method in which to work.

This makes ESS distinctly different to traditional ES where employee usage is expected to align to a set of predefined tasks that the organisation has associated with the features of the software. Furthermore, mandates for ES usage are often prescribed by management as end-users are expected to use the software in a way that will achieve the goal attached to its implementation (Chae and Poole 2005). However, any mandates applied to ESS will necessarily deviate due to the malleability characteristics, even more so than is already the case for ES (Beaudry and Pinsonneault 2005). This also changes the established definition of implementation, as an organisational desire for achieving a known goal through social software is not likely to be realised, as its meaning is defined and constantly adapted by end-users. This makes the traditional implementation approach of top-down, mandated and prescribed software usage inappropriate for ESS. Instead, the malleability of ESS requires a different approach and new ways of thinking about implementation altogether (Richter and Riemer 2013).

2.3 Requirements for ESS success

Firstly, given that the success of social software relies on end-users communicating, collaborating and sharing content (Treem and Leonardi 2013), any introduction process would have to be highly sensitive to the needs of particular user groups in different organisational contexts, where usage outcomes of social software can be quite different (Mettler and Winter 2016). Secondly, although ESS can be introduced either organically through employees (Greasley and Wang 2016), or formally by management, both types have to be conscious of malleability and let usage flourish at the hands of end-users. Thirdly, the managerial support and introduction approach would need to amount to what Dourish (2003) calls the need for 'appropriation', whereby software selection and its management has to allow for the unexpected aspects of the technology's usage over time (Dix 2007). Allowing for user appropriation also ensures that usage can occur naturally, as the design and features of the technology also play a fundamental role in its uptake and ongoing usability. These factors suggest that an agile and reflexive approach to ESS introduction and its ongoing management would be beneficial.

Although a number of conceptual models and frameworks for introducing and managing social software have been suggested in the literature, most models and frameworks have not been empirically tested and are instead created from 'lessons learnt' (Baxter and Connolly 2014). If and when end-users are mentioned in ESS projects, they are also considered as having either an informative or consultative role during the process (Raeth et. al 2012; Stieglitz et. al 2013). Little consideration is given to the organisational context, employee usage over time, or the appropriation and managerial aspects of the technology. Lastly, such accounts do not reflect a researcher 'being there' as ESS projects unfold.

3 Study Overview

As the introduction, appropriation, and usage of ESS is context-dependent, a research design capable of exploring such factors is required. A case study approach is therefore appropriate, as phenomena can be explored in real-life contexts (Oates 2006). The Ripple Effect Group (REG), who are a niche, Sydney-based consultancy business, have been chosen as the case setting as they offer expertise in both the introduction and usage of social software, as well as knowledge of software appropriation, technology governance and industry trends. In the context of the present study, multiple clients have presented to REG with a desire to achieve 'communication and collaboration' across their enterprise

and see the introduction of social technology as eliciting desirable end-user outcomes. Such a belief is in direct contrast to REG who see employees as the main focus.

3.1 The REG approach to ESS

The REG approach to ESS is embodied in a method known as 'Head Start', which is user-centric in nature, as no one stakeholder or audience group is deemed more important than any other technology user (Naranjo-Bock 2012). The Head Start method incorporates an agile project management approach and a form of rapid ethnography enacted with their client's workforce. This can include interviews, site visits, workshops and webinars involving employees. Following their method, one of REG's main project contributions are 'authentic personas' which are rich, archetypical user profiles created from actual employee experiences that are uncovered during ethnographic activities. REG create between six and ten personas for each client project, deemed enough to encapsulate diversity, but not overwhelming for decision-making purposes. Personas are a well-known linguistic tool in decision making for technology design and usage solutions (Friess 2012). REG incorporate their personas into user journey stories, which help articulate the ESS solutions they suggest to their clients.

3.2 Embedded Research Design

As an approach for engaging with REG and their Head Start method, I have, since March 2016, worked to become an embedded member of the REG practice. This has been achieved by directly working with REG on client projects, regularly working from their office, engaging and talking to REG practitioners, and having access to the REG internal tools and systems. Researcher 'embeddedness' is a term originally coined in journalism when reporters went to war to report on events as they unfolded (McGinity and Salokangas 2014). Such embeddedness has been suggested in reference to academic researchers actively being involved in practice. This allows a researcher to help the practice understand their encountered problems and use the combined embedded involvement and deliberation of problems as a way to study practice as a unit of analysis (Reimers et. al 2013). Such a relationship has the potential to produce academic outputs that are reflective of actual business processes, whilst helping the business improve their practices.

Through this embedded relationship, I have seen how the REG practice unfolds both in-house and in client project contexts. Due to this dual context setting, I have had to moonlight as a practitioner-researcher. For example, when accompanying REG consultants to client meetings and workshops, I have played the role of scribe and have contributed to the REG work in a supportive and administrative role. However, when the REG consultants later deliberate about their client work in-house, I am able to step into the researcher role and ask questions about the REG practice. According to Nicolini (2009), this dual relationship allows me to change my theoretical lens for how to approach an understanding of the REG practice across time and contexts.

3.3 Research Questions and Aim

In this study, I ask two questions in relation to projects that deal with the formal introduction and use of ESS inside workplace contexts. Firstly, how and to what extent does the introduction and use of malleable technologies challenge traditional thinking around IT roll-out and management processes? and, secondly, how do social software projects unfold and create tensions when (a) two practices hold conflicting beliefs about ESS, yet (b) must work together to co-design a solution for its management and usage? The aim of such research is to explore how two different practices perceive ESS, and each other, as they work together to devise a solution which ensures employee usage of social technology takes place. Such an inquiry is facilitated by the work of REG as they utilise their consultancy Head Start method which focuses on end-users and aligns with the malleability characteristics and need for ESS appropriation. However, REG frequently finds itself working with clients who follow a taken-for-granted, top-down way of thinking about technology in the workplace.

3.4 Analysing breakdowns as a way to reveal practice beliefs and tensions

The assumptions held between REG and their clients have so far been explored via practice breakdowns (Sandberg and Tsoukas 2011). The word 'breakdown' is not in reference to technology or the flow of events 'breaking' and needing to be fixed in order to continue but, rather, are in reference to pragmatic contexts in which both practices have to make sense of each other's practice. For the purpose of this research, a breakdown is therefore something that reveals the thinking behind a practice. This somewhat foregrounds and makes accessible practice beliefs and assumptions in relation to people and technology in workplace contexts. For example, in a project management meeting, a client asked why REG only produce six personas as one of their final deliverables. The

question revealed a type of information needed by the client practice and the assumptions of the REG practice as they provided a rationalisation in answering the question.

As projects unfold, these back and forth questions between both practices elicits tensions, as revealed assumptions become challenged in relation to how each practice begins to view themselves in the relation to how they view the project. In practical terms, this means that final ESS solutions derive their meaning from the breaking down of practice and the presence of tensions, and not just via the enactment of practice itself. Therefore, analysing breakdowns provides a methodological avenue of exploring ESS project phenomena as projects unfold. Such an approach has been informed by a Heideggerian lens in which technology is socially co-constructed and brought into being via breakdowns and phenomenological interpretations (Dreyfus and Wrathall 2005).

3.5   Data collection and analysis

Preliminary data collection has included self-ethnographic accounts and naturalistic observations of client meetings in multiple ESS projects as they unfolded throughout 2016. As breakdowns have occurred across various settings, a practice perspective has allowed me to observe and explore how REG practitioners frequently reflect on and re-interpret their own practice as they encounter breakdowns across contexts and over time (Gioia and Chittipeddi 2007). In order to explore and further direct my observations in the field, academic contacts have acted as a discussant at regular intervals for joint reflections about my observations. This allows empirical material to foreground different lenses with which to best make sense of the observations that I make.

Consequently, the interplay between practice, theory and data is stressed in order to explain and further explore the empirical world. One of the main advantages of embedded research is the ability to be reflexive and iterative in the data collection processes, and "respond in ad-hoc ways to data collection opportunities" (Rowley 2014. p, 21). By looking at the data in both incremental moments and retrospectively, discovery and insights can be made throughout the data collection period. Such an approach aligns to the idea of 'casing', in which observations can be put aside and then be revisited after engaging with the literature and empirical world over time (Timmermans and Tavory 2012).

3.6   Ongoing project work

Further data opportunities are available through project document analysis, as well as interviews with both REG and client practitioners. Such activities are planned for the near future and will enable me to further explore and reflect on my observations that have so far been made. After engaging with data over time, the idea is to compare and contrast the practice tensions that have occurred in different ESS project contexts, and which existing literature does not explain. This aligns with what Alvesson and Kärreman (2011) call 'the search for mystery' as evidence is surfaced that is puzzling – data that cannot be explained by existing theory, and therefore elicits interesting, new insights.

It is in this sense that REG provide a promising avenue for exploring tensions in ESS projects via an embedded case study design, as they offer expertise in both the introduction and usage of social software in organisations, as well as possess technical competency. Overall, the REG approach to ESS aligns with the malleability characteristics of social software, as it emphasizes the role of the end user employees during and post formal introduction processes of the technology. By continuing to be involved in the REG practice, I am in a unique position to explore the tensions encountered by REG and their clients as they work together on joint ESS projects, thus providing opportunities to learn about and theorize the particular nature of how ESS can be introduced and used inside organisations. Preliminary results from 2016 observations are shown below.

4   Preliminary Ethnographic Accounts

Throughout 2016, REG engaged in multiple new client ESS projects. I was exposed to all such projects but for the purposes of this paper have focused on three in particular. Each of the three clients presented to REG with the same workplace problem: an expressed need to improve communication and collaboration across their enterprise, and the wish to achieve this via ESS. In each organisation, there was executive endorsement of hiring consultants to help the organisation achieve their ESS goal. The reasons given pertained to perceived threats from external market competitors, which clients aimed to address through improving the internal communication and knowledge sharing among employees via social software. When REG and a client commence their joint project, a dedicated project wiki space is created on REG's internal system. This is the central location where project documentation and materials are housed, and where members from both practices can ask each other

questions outside of times when the REG Head Start method is not being enacted. Breakdowns can therefore occur both online and face-to-face.

4.1 Breakdowns and the phenomenon of juxtaposed practices

Certain practice breakdowns I have observed have helped me explore the underlying assumptions that exist on both sides, among REG practitioners and among their clients. It became evident in each of the three cases that REG and their client embody very different understandings about the introduction and use of ESS among an employee cohort. REG follow their Head Start method, while client teams have displayed strong examples of traditional top-down thinking often aligned to ES implementation and its mandated usage. Interestingly, most of the client practitioners have come from business divisions such as Human Resources, Communications and IT; teams who have historically had a vested interest, or played a dominant role, in the top-down provision, control and governance of enterprise-wide technologies inside of workplaces, including the creation and governance of policies related to employee behaviour and conduct on internal systems (Van Gramberg et. al 2014).

In each case, REG enacts their Head Start method, a practice which REG practitioners have embodied and that reveals itself in real-life situations. This practice is their 'way of doing things', which normally goes unnoticed in the course of enacting their practice as they take it for granted (Sandberg and Tsoukas 2011). However, the same cannot be said for the client practice. Although REG have been hired due to their ESS expertise, the enactment of their Head Start method is surprisingly confronting to their clients as they struggle to make sense of the approach as it unfolds and defies their expectations. Observed breakdown situations have revealed on the client side deeply held assumptions about how ESS projects should unfold, in the sense that the introduction and roll-out of software should be based on a desired end-goal, with the expectation that the technology itself will elicit certain behaviours and observable outcomes (Grant et. al 2006). This clashes with the REG approach which puts people at the start of the process, in that REG is concerned with understanding, holistically, how employees work, think, feel and act in the context of their workplace.

The research phenomenon is therefore concerned with two conflicting practice perspectives being revealed and juxtaposed against one another, but who must work together to jointly bring about a malleable technology introduction and usage solution. Through breakdowns, conflicting beliefs about technology are revealed, interpreted and mitigated by the two practices throughout the project's unfolding. The breakdowns foreground two distinctly different practice assumptions and reveal the different expectations that people from both practices hold about the project as it moves from abstracted to more pragmatic contexts (Visconti 2010). Such juxtaposition provides an opportunity to empirically explore the research questions of this study, as breakdowns and their interpretations are bounded situationally, which is a critical factor for ESS success (Mettler and Winter 2016).

4.2 Example observations

During 2016, I attended 22 meetings with clients, as well as eight formalized in-house meetings, in which REG practitioners discussed client findings across all three mentioned client projects. Moreover, as a result of being embedded with the overall REG practice, I was also privy to informal in-house discussions regarding client projects. Table 1 showcases, through (edited and shortened) ethnographic field notes of project observations, how REG and their client embody the aforementioned practice perspectives and beliefs about ESS. For REG, it shows that their practice is driven from the end-user employees, whereas for the clients, their practice embodies top-down expectations, driven by managerial intentions of ESS usage in which technology is linked to certain intended outcomes.

Observation	Clash of Perspectives
Clients refer to their employees as audience segments and categorise them based on numbers, location and demographics. They currently communicate with employees via email, digital newsletters and management-mediated messages. Communication is seen as something employees receive via technology, as driven by a dedicated team in a top-down push message approach. This is puzzling as the client wants to introduce ESS, which puts communication in the hands of employees.	REG seeks an empathic/ face-to-face relationship with employees; whereas the client team views employees at an arms-length and has a transactional relationship with them.
In initial project meetings, clients believed that with the introduction of ESS, and employee training, they will achieve their goal of improved communication and collaboration. REG however are agnostic regarding the selection of particular technologies during early project phases. The focus rather is on employees and their	REG view ESS usage as subjective and driven by end-users. They seek to understand employee context based on existing employee

'worldview' inside the workplace. The client expected REG to start with technology and bring in employees later for technology adoption 'as intended', based on the client need.	practices; whereas the client sees technology as something that will dictate end-user outcomes.
REG are confused by their client's ongoing resistance to their Head Start method. The client, however, is confronted by the REG practice as it challenges some of their existing practices and beliefs. If the client started questioning their own practice assumptions, the REG practitioners would likely offer additional advice, support and learning material to them about ESS. However, when the client is hostile towards REG and rejects the Head Start method, REG are the ones left to question their own practice assumptions.	The REG practice aligns with the malleable nature of ESS, while ESS appears to threaten established client job functions; such as technology control and communication influence over employees.

Table 1: Observations of two practice perspectives

5 Discussion

Through preliminary field work accounts, REG and their client engagements offer fertile ground for studying malleable technology in contexts dominated by traditional top-down approaches to IT implementation. It has been suggested that practice approaches offer a suitable lens for studying this phenomenon, as practice breakdowns provide me, as an embedded researcher, with a way to access and study the tensions when practice expectations clash. Such tensions reveal hidden assumptions and productive reactions on both sides which allows me to learn about ESS projects, as this technology enters client workplaces with the mandate to bring about change in employee communication and work practices. The notion of malleability suggests that such changes cannot be 'engineered' but have to emerge from appropriation. Consequently, I envisage that my ongoing engagement with REG has the potential to provide theoretical and practical insights relevant to the IS field, both in critically, empirically questioning the efficacy of traditional implementation approaches for ESS, and in improved understanding of how to manage the roll-out of ESS that takes note of its particular nature.

Popular IS theories and models relating to software implementation in organisations, such as the technology acceptance model (Davis 1989) and the Unified Theory of Acceptance and Use of Technology (Venkatesh et. al 2003), are solution-driven and, while useful for theorising adoption of traditional ES, appear less applicable for malleable technologies. Through my research regarding the introduction of social technology as a type of malleable software, I aim to bring to the fore a more active role of end-user employees; a role that, I suggest, they might have always played in technology's success, but that has historically been downplayed in existing research.

By studying breakdowns, I am in a unique position to empirically explore the challenges that organisational implementers face when their assumptions are revealed and the interplay between people and technology is exposed. It is possible that the REG clients are unaware of the malleable aspects of ESS, as they fail to understand what it is they are trying to achieve through its introduction. Instead of looking at ESS implementation after its physical introduction and usage over time (as is the case with existing literature), I can instead provide practice-based insights for what occurs at the micro level of ESS projects as they unfold, and for which overall solutions are intended for the macro-level enterprise. Such solutions might be able to empower employees and focus on the appropriation of the technology. As this paper has presented only initial research-in-progress accounts from 2016, the research itself has continued to unfold throughout 2017 and will continue in 2018. This timeframe allows for insights to be compared and contrasted across various client contexts. Furthermore, as my research approach allows for iterative engagements with empirical material over various data sets, contexts and time periods, I anticipate that a somewhat 'pre-appropriation' IS theory is possible due to REG and their client designing a solution for how employees could appropriate ESS. I also envision new methodological insights relating to researcher embeddedness as a way to explore IS phenomena.

6 Conclusion

My contribution to the IS field is twofold as I aim to contribute to a better understanding of the introduction and use of malleable technologies, and to showcasing the efficacy of researcher-embedded approaches to the study of ESS contexts. Firstly, my research will bring to the fore, and question critically, the dominance of established top-down implementation methods regarding ESS. By focusing on the role of the end-user during ESS projects, I will highlight the role employees play in the technology introduction process, as well as the limitations of traditional, top-down approaches that

background the role of the end user. Secondly, my research design and method helps bridge the often-contested theory-practice divide between industry and academia. I will be able to illustrate how embedded research is able to study IT project phenomena as they unfold in practice, via a practice breakdown lens. This analysis of practice is able to usefully foreground assumptions and beliefs relating to technology, employee usage and organisational goals attached to enterprise software.

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Acknowledgements

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