

UC BERKELEY SCHOOL OF INFORMATION

Enterprise Social Software

Addressing Barriers to Adoption

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Introduction

Project scope

Businesses are taking an interest in the rapid success of social software in the consumer market (Facebook, Twitter etc.) to foster rapid information sharing amongst participants. There is now a significant market for Enterprise Social Software (hereafter referred to as ESS): according to a Gartner report, the estimated revenue for from ESS sales is expected to reach \$769 million in 2011, a 15.7% increase over 2010 revenues (Ries, 2010). ESS vendors are marketing these products as an innovative way to engage employees and to improve collaboration within organizations. This project examines the adoption barriers that medium-large (100 to ~10,000 employees) organizations face when deploying Enterprise Social Software (ESS). Companies of this size are interesting to us because they: (1) Are large enough that tacit knowledge is likely locked within the organization, (2) Are small enough that an organization-wide IT implementation could consume a significant amount of internal resources (that might not always be available), (3) nimble enough to respond to new technology much faster than massively large organizations, and (4) make up a majority of the companies in the US (Axtell, 2001), effectively existing as the middle class of business organizations in the US

As these medium-large companies begin to consider and/or adopt Enterprise Social Software (an important note: for the purposes of our research, we are only looking at *internally* facing social software) within their organizations, careful regard for potential barriers to adoption must be made. Our research aims to: (1) identify the potential barriers to adoption that organizations may face when attempting to deploy Enterprise Social Software and (2) propose a set of recommendations that may help mitigate the potential barriers to adoption. Our analysis and recommendations will be based on: (1) a review of relevant research literature, (2) case studies in knowledge management, and (3) primary interviews with social software vendors, implementers and customers.

For several reasons, we see Enterprise Social Software as a marked departure from the typical enterprise's way of doing business. Because ESS is not, by nature, a "plug and play" solution, any organization needs to take into account the changes that can be expected when ESS is introduced in the workplace. We used a three-pronged approach to understanding the dynamics of ESS implementation. We spoke to vendors - makers of these tools, to learn about the issues they face with the adoption of these tools, and understand how they tackle them. Also, some of these tools are implemented by integrators, who often have little more than a "best practices" document. Lastly, and most importantly, we wanted to interact with end-users themselves, to understand: (1) what were the perceived benefits (if any) and (2) how they achieved them. End-users also perform the important function of corroborating what we learn from vendors and integrators.

By combining our primary and secondary research, we hope to provide an informed framework for organizations considering Enterprise Social Software (ESS). How have companies seen ESS as being different from other software they have used in the past? What have some of the key challenges in ESS adoption been? What steps are companies and vendors taking to address those challenges? By using our framework, medium-large organizations seeking to derive maximum value from ESS can make more informed decisions on how to encourage adoption of ESS within their own workplace.

We begin the discussion by making an attempt to define Enterprise Social Software, and then briefly discussing some of the benefits an organization may hope to derive from using these tools.

Defining Enterprise Social Software

Let's begin by describing the origin of Web 2.0. The salient features from Tim O'Reilly's (O'Reilly, 2005) definition of Web 2.0 are that it is: (a) a "network as platform", which seems to follow the ideology of (b) "more the merrier" – there are significant network effects (Metcalf, 1980), and that (c) there exists an "architecture of participation." The commoditization of computer networks means that they can now be used as a platform for more evolved and organic processes that extend their functionality. Another aspect is peer production: self-organizing communities of individuals who come

together to produce a shared outcome desired by the group. Thus, it follows that having more members invested in the cause has benefits.

The key implication of “architecture of participation” is that the ordinary user can play an active role. The average consumer of information is now more likely to be a producer (Shirky, 2008). These systems are autonomous and self-governing by design. So how is Social media different from Web 2.0? Some have argued that Social media focuses on people, whereas Web 2.0’s primary concern is content. Without using further print space (and annoying the reader), we can stop here, since the nuances of the definition aren’t relevant. The underlying themes, concepts and results are the same, hence it’s best to not ponder too much over the terminology.

The next issue to tackle, then, is how can social media be defined in the context of the enterprise? “Enterprise 2.0” is the (seemingly obvious) love-child of the two domains as coined by Andrew McAfee (McAfee, 2006). The essence of the idea is: using blogs/social networking/wikis and a continually expanding list of web technologies in a way that can benefit an organization. Also, we would like to point out once again that, while definitions of Enterprise 2.0 often transcend the boundaries of the organization – to include social media marketing/branding and/or the “public face” of the firm, our focus is on the use of social media within the organization. From here on, we refer to these special tools as Enterprise Social Software. The benefits to internal adoption of collaboration tools can be several, as we will see next.

Social Software: the next frontier

Since computing power became affordable to corporations, they have seen value in adopting new tools and technologies that aid the process of conducting business. In more recent memory, corporate e-mail and instant messaging (Bellman, 2008) are two of the most successful modes of communication that have been in use at the typical organization. As these and other enterprise technologies have evolved, they have moved from being a basis of competitive differentiation to a requirement for conducting business (Carr, 2003).

Organizational silos hamper flexibility, and social media tools can overcome this difficulty by opening unofficial communication channels. A McKinsey report (Martin, 2010) noted how workers interacting with others were able to apply their experience and judgment to solve their own problems. There are several examples of how companies have been able to benefit from deploying collaboration tools between teams. (Economist Intelligence Unit, 2007)

In the book *Enterprise 2.0*, Niall Cook summarizes the benefits of social software for any organization as 4 Cs - connection, collaboration, cooperation and communication (Cook, 2008). Connection is the relationships that enable interaction between employees. Social networking, tagging, and search enable connection. Collaboration can be defined as a formal, mutual, engagement to solve problems - a long term, continuing effort. Wikis and idea generation tools are key enablers. Cooperation is the process of splitting tasks, and co-ordinating and integrating them in the short run. Media-sharing, social bookmarking and co-authored “spaces” are the tools that can achieve this objective. And of course, tools like blogs, discussion boards, IM, and short updates (read: tweets for a close network) enable communication. It’s important to note that this information is shared upward and across too, as opposed to downward only.

While there is a fair amount of literature on how social software can benefit the enterprise, not a lot of it focuses on the benefits to the employee. DiMicco et al. present the first academic attempt at identifying the benefits of social software within the enterprise (DiMicco, Millen, Geyer, Dugan, Brownholtz, & Muller, 2008). They observed IBM’s internally developed *BeeHive* social network, and came up with three major motivations for end-users: improving ties with fellow employees, career advancement, and gathering support for ideas and projects.

Dogear, an enterprise social bookmarking service was implemented at IBM, was studied by Millen et al (Millen, Feinberg, & Kerr, 2006). The key perceived benefits were improved awareness of resources, easier access to information on the intranet, and better awareness of other employees’ interests and abilities. This not only reduced time-to-resolution for many incidents, but also enabled a discovery that was previously impossible - leading to new projects and ideas.

Secondary Research

While the concept of Enterprise Social Software (or even Social Software itself) is rather new, there is a fairly large body of research on the usage of technology to assist work. Barley (1986) made some interesting observations about the assimilation of new technologies into the enterprise, by observing the adoption of CT Scanners by a sample of doctors. IBM has conducted a large amount of research on internal collaboration and knowledge management tools, and their research informs a lot of our preparatory work. Also, organizations have, for a while now, been investing large amounts of time and effort into capturing “knowledge” – tacit and implicit aspects of their work and work products. The Enterprise 2.0 movement is merely a step towards flipping previous attempts on their head – by taking a more bottom-up approach to sharing knowledge.

The momentum and promises behind social software has roots in knowledge management systems that gained popularity in the late 1990s. Hence, we begin our discussion by talking about the emergence of knowledge management as a discipline. In recent years, the focus shifted more towards the ecological aspects of knowledge - how does it fit into the overall mechanics of an organization? Also, the increased importance assigned to the time value of information leads our discussion into social software.

We begin by reviewing some of the prior case studies in the field of knowledge management in the enterprise. These studies examine the strategies adopted by large, growing companies with a global presence. Also, they offer some insight into the challenges faced by organizations trying to tap into the knowledge their employees possess. There are also some attempts at defining metrics related to the effectiveness of these tools, and some of pitfalls of this approach.

Next, we try to delineate the key differences between the knowledge management tools and techniques of the past, and the concepts and ideas behind Enterprise Social Software. A lot of previous efforts towards knowledge management were reduced to document management – repositories of “knowledge objects” which were really nothing more than memos, tables, and miscellaneous work

products. Enterprise Social Software, on the other hand, is about more than sharing files, it's about sharing experiences, expertise, and ideas.

After establishing the key differences (and similarities) between the two approaches, we now move the discussion towards some of the major difficulties faced by organizations who want to implement Social Software inside their organizations. Also, we try to delve into the causes for these difficulties. These tools are a significant departure from any organization's way of doing business, and they need to acknowledge that Social Software is not a "plug and play" solution, unlike many other changes they might have initiated in the past.

While companies make an attempt to integrate Social Software into their workflows, a much bigger social movement is occurring outside, in the open web. Facebook, Twitter, Foursquare and co. are redefining the way people connect, communicate, share, and live together. In fact, Enterprise Social Software is really a case of an innovation moving from the consumer to the industry. There are definite ramifications of this movement on Enterprise 2.0. There is an increased understanding, even an expectation, that some of the attributes of Web 2.0 tools will become visible in the applications that employees use at work. That said, there are several key differences – and we spend some time talking about them.

Knowledge Management: A Review

Organizations have always recognized the value of knowledge as a key source of competitive advantage, but Knowledge Management as a discipline gained prominence in the 1990s. Drucker (1996) defined knowledge as "the only meaningful economic resource", which suggests that knowledge (or its absence) has serious consequences for the organization. Early on, one of the key questions asked where about whether knowledge is "manageable" (Paul Quintas, 1997) i.e. can knowledge be managed as a resource like land, labor, or money? And, by extension, Can the process of knowledge management be considered repeatable, by using a set of guidelines?

While there are many attempts at trying to define Knowledge Management (KM), they vary extensively, primary due to the lens that they choose to view KM with (Spender, 2007) Most of the definitions can be grouped in one of three categories. Techno-centric definitions focus on technology that enhances sharing and creation of knowledge. Organizational approaches attempt to describe the aspects of organizational design that would enable KM. Ecological approaches, on the other hand, focus on the interaction of people, knowledge, and the environment as a system. It can be argued that the seeds for managing knowledge through ESS lie with this set of approaches.

Perhaps the most referenced definition of Knowledge Management is (Paul Quintas, 1997) - KM is to discover, develop, utilize, deliver, and absorb knowledge inside and outside the organization through an appropriate management process to meet current and future needs. (Holm, 2001) builds on this definition by acknowledging the significance of time: "... the right information to the right people at the right time" and then includes the important end-result: acting on information.

Knowledge management systems are how KM is achieved in practice. Loosely speaking, they are a class of information tools used for managing knowledge. (Leidner, 2001) break down the functions of Knowledge Management Systems into four processes - creation, storage & retrieval, transfer, and application. Of particular relevance to the ESS movement are the discussions on knowledge creation and transfer. Alavi acknowledges the duality of knowledge in any system: tacit and explicit. They identify four modes of knowledge creation: a. externalization (converting an individual's tacit knowledge into explicit knowledge for another user) b. internalization ("absorbing" another individual's explicit knowledge) c. socialization (sharing tacit knowledge across individuals) and d. combination (sharing explicit knowledge across individuals). Most early attempts at KM were really focused around documents and artifacts (Thuraisingham, 2002) - and hence were suited only for internalization and combination.

Knowledge transfer introduces two new forms of how knowledge "travels" across the organization - through the process of applying knowledge to a project, and learnings from knowledge application. Also, the system describes an "episodic memory" - a collective knowledge that is created

when people interact and work together on projects. Also, the paper suggests that IT can extend people's knowledge network outside of their limited personal networks.

Review of Case studies in Knowledge Management

The World Bank

The World Bank is an international financial institution that provides loans to developing countries for various capital-intensive initiatives. It has a presence in several countries, and employs a lot of people who work on high-profile, large scale development projects directly with many governments. The case describes some of the challenges a global organization may face when trying to consolidate their technology, and then apply knowledge management to their company.

The World Bank identified the need to build a consolidated knowledge bank c. 1995. Their interests were geared towards consolidation - and the resulting lower costs, and standardization. This was an interesting case study because it was one of the earlier attempts at exploring whether IT infrastructure and "information" are essentially the same function? There was a failed attempt to merge business practices with technology, in the hope that it would result in better knowledge resources. The two, however, continued to operate as independent silos.

Also, there was an MIS division, which was perhaps the ideal team to take the lead on the knowledge management project. However, their traditional function was reporting and supplying key decision making information to the senior management, and a lot of their work was viewed as creating an impediment to day-to-day work.

The paper also sheds some light on the governance-related issues of sharing information. The way these were applicable to the World Bank, they would also be applicable to several big companies dealing with sensitive information. Lastly, it hints at the importance of nontechnical leadership in implementing a tool like this. Due to their background, such people can be expected be more technology-agnostic (and hence more aware of the business case), as per the study.

Also, they make some observations on some of the changes that needed to take place for knowledge sharing to be possible. Firstly, a high level of integration and standardization of the IT resources offered to the employees. Secondly, acknowledging that knowledge-sharing is a people not a technology problem. And lastly, understanding the fact that knowledge sharing is, by nature, an organic activity, which is a departure from the mechanistic nature of the organization.

Siemens

With 400,000+ employees and a presence in 190 countries, Siemens is a good example of a massively large multinational corporation. The company has three main business sectors: Industry, Energy, and Healthcare. Founded in the mid-nineteenth century, they have also been around for a really long time. Circa 1998, Siemens felt the need for a standard, global, knowledge sharing platform – and introduced ShareNet.

Siemens recognized the value of knowledge - especially of the codified kind. Early on, the team made some key observations. Firstly, they acknowledged the benefits of focused sharing, but also realized that knowledge obtained in one geographic market could quickly be applied elsewhere, with great returns. Another effective practice was starting small - they identified a few spots for initial pilots.

Next, they began establishing general guidelines for use of the platform. Initially, they hoped that “users would find a use”. This tactic did not work very well, and that’s when they began thinking more about the users. One of the successful ways of dealing with slow adoption was appointing ShareNet managers. These were individuals who assumed ownership of parts of the site, and were held responsible for its success. For many people, this developed into their full-time role at Siemens. The managers received direct recognition for their efforts on ShareNet.

While this motivated the managers well, ShareNet began facing the free-rider problem - too many browsers, too little content. Several incentive methods were experimented with, and few worked. Awarding points (and including bonus points for certain time periods) seemed to be working, but in reality it affected the quality of their content. This exacerbated the other major concern - people were not

willing to trust the information on ShareNet. Siemens dealt with this by establishing a content review process, and also making posters accountable by displaying their contributed content as well as “usefulness ratings” on their profiles.

Another interesting aspect of their implementation arose out of the information asymmetry that existed between their major corporate offices and the smaller, sales and/or satellite offices. They found employees in the latter locations to be highly active, since they had a burning need for knowledge. It wasn't very obvious how they could solve this asymmetry. Also, a key challenge in the later stage was establishing metrics, and also getting teams to own some of the costs of implementation of the tool.

Daimler-Chrysler

Daimler and Chrysler were two large, successful automobile manufacturers. Each of them was massively successful in their respective home markets, but was trying to make inroads into new territories. Also, they were really interested in tapping into each other's strengths. For these and other reasons, they decided to merge in 1998. Although initially touted as a merger of equals, they faced several challenges, many reflected in the varied cultures.

There were very different knowledge management strategies at Daimler and Chrysler prior to their merger, and these created complications later. While the former did not have a formal program, the latter essentially had artifacts and work products - documents, as opposed to “knowledge”. Even so, Chrysler demonstrated the usefulness of the concept - for instance, by creating multiple products on one, shared platform.

Also interesting to note was the fact that Chrysler went for a domain-focused approach. They identified interest areas, and tried to build communities around them. This offered the benefit of immediate value to certain groups of users, while also creating challenges towards connecting these communities - how can they share information *across*?

Bridging KM and Social Software

Knowledge management is an idea centered on work products. These could be sales pitches, customer information, market research documents, memos, product specifications, and so on. These artifacts are no doubt important, but knowledge means a lot more than these documents. The Daimler-Chrysler case uses this definition: “Knowledge could be defined as a principle that lay somewhere between a hunch and a scientific certainty.” In that sense, it may come with experience, and might have to do with what we call intuition. Yet, it cannot be proven and hence established as a fact.

This notion also finds support in the subject of information theory. As per the source coding theorem (Shannon's Source Coding Theorem), the value of any message is associated with its entropy (ie: the amount of uncertainty associated with the information). Hence, the more uncertain we are of a situation, the more value any information we have about it assumes. Also, time is often of the essence. For such situations, a document management solution is just not enough.

(Hinds, 2003) observed that in situations where norms of reciprocity prevailed, people were also likely to gain access to knowledge from others much faster. Hence, if a company can achieve reciprocity, the “time-to-resolution” is shortened too. Also, too many constraints lead to lesser motivation to share information (Ackerman, 2003) since a tedious process is less satisfying. Avram (2006) observes that the bottom-up approach of Social Software encourages responsibility and ownership, while opening wide opportunities for collaboration.

But there are concerns that surface because of these traits of social software. Firstly, people used to the mechanistic processes that existed previously are reluctant to share knowledge (Sirota, Mischkind, & Meltzer, 2006). One of the reasons is that people are used to instructions flowing down, and responses and reports flowing up. Also, information sharing requires trust. The use of Social Software could often result in employees receiving requests for assistance from people they have never met or worked with. Additionally, there are competitive dynamics (Madhavan, 2001), which dissuade many people from sharing their “secret sauce”.

Also, as Avram notes, the bottom-up approach may not always encourage contribution. One possible cause is that since there is no hierarchic control (read: memo) that directs an employee to produce a body of work, they may not choose to do so. In summary, the salient characteristics of social software, as discussed, present both opportunities and challenges for use.

The differences (and similarities) between Consumer & Enterprise Social Software

While the roots for ESS were sown first in the consumer internet space (O'Reilly, 2005) Enterprise 2.0 is much more than "Web 2.0 for the Enterprise". Rangaswami (2006) notes: the Enterprise introduces several constraints that do not exist in the open web. These include, but are not limited to:

a. Legacy environments: Many established organizations rely on old, outdated technology due to the high switching costs.

b. Innumerable vendors: The typical organization sources its software from multiple vendors. Sometimes this is because the firm may wish to multi-source to reduce dependency on a single vendor. Mostly, though, a single (or even a few) vendor(s) are unable to satisfy the technology needs for an enterprise.

c. Mismatched data sources: Due to the complex interactions between applications, many of them not designed to work with each other; data exists in multiple, fragmented forms.

d. Stringent regulations: Organizations need to exercise a certain degree of control on their data. Various data artifacts require a fairly granular lever of access control. Many of these artifacts may only be shared with certain groups of people, for instance salary information. Also, many artifacts amount to trade secrets, and need to be guarded from outsiders. Also, companies are increasingly collecting more and more information about their customers. This needs to be protected not only as an asset to the company, but also as a huge liability.

All of these dynamics of an enterprise cause many complications for the implementation of Enterprise Social Software. For one, they result in major delays in the implementation process. Also, they

come with associated costs of their own. Unlike in the open web context, enterprise software needs to employ a more rigorous test process (Cook, 2008) - the “good enough” approach doesn’t work.

And then there is the issue of motivation. Many individuals are intrinsically motivated to share information about their social lives - what they eat, where they went, photos etc. (Boyd, 2008) However, the dynamics change when information sharing happens within the closed doors of the enterprise. There are several layers of complexity here. One, the nature of information is very different, as we have discussed in detail in previous sections. Also, the audience is very different - while there is most certainly an overlap, colleagues and friends are considered, by most people, to be distinct social groups.

This gives rise to various concerns - Does a worker always want to give away knowledge? Do they think of communications via the new medium as inaccurate, and unnecessary? Every employee associates a certain degree of control with their role at the firm (Baltatzis, 2008) The fact that companies would perhaps track and measure outputs to these mediums to obtain detailed information about the workforce may also act as a deterrent to using these mediums.

(Brzozowski, Sandholm, & Hogg, 2009) observed that direct exposure to social media was an important factor in encouraging adoption of ESS tools in the organization. This is an obvious benefit of the similarities between the two, but it also has another key implication: many of the adoption patterns are similar to social media applications. The most significant of these patterns is age. Ofcom research observed that social network usage was highest among 18-24 year olds, and decreases with age. ESS then, would also observe similar distributions across the workforce. This problem is aggravated by the fact that many organizations (especially older and larger ones) are likely to have older employees.

Also, social psychologists have documented evidence of “social loafing” - the idea that people exert less effort on a collective task than they do on a comparable individual task (Ringelmann, 1913). Ling (2005) found that this idea could be extended to open online communities too. These effects are carried through to the enterprise context as well. Which brings us to the question - Can endeavors to improve collaboration lower individual output significantly?

At their core, both social media and ESS build on the importance of networks. ESS attempts to utilize an organization's internal network of employees, whereas social media leverages an individual's personal network. Unlike social media though, ESS operates in a "closed" network. Only employees of an organization have access to the network, and any information they share is meant to be visible only to people within the company.

Walter Powell's *market nor hierarchies* (1990) proposed that networks be viewed as an entirely different form of organizational structure. He observes that networks are especially useful for commodities that cannot be valued easily. They are effective in work processes that require a fair bit of intuition and experimentation (Perrow, 1967). Powell supports the idea with examples from the craft industry, and also the book publishing industry.

In particular, he points to examples where editors seem to be optimizing the welfare of the networks they belong to, as opposed to the organization that they are a part of. Do the ties an individual forms via the network take precedence over the benefits to the firm? Another example also points to the entrepreneurial nature of the dense network of small firms that thrived in Italy. These were autonomous, self governing, and self-organizing networks, and they did rather well for themselves. He also observes that networks are "light on their feet", and hence respond and adapt to stimuli quickly. Tushman (1979) observed seven departments at the R&D laboratory for a large corporation. He observed that the less routine and more complex the work, the more connected was the communications network. All of these examples sound similar to the perceived benefits that distributed collaboration is expected to foster.

What's the problem, then? Large organizations are designed to prevent collective action by employees (Williamson E., 1975). They tend to be more rule bound, and process-oriented in their efforts (Child, 1973). Although research suggests that employees would be more enthusiastic if they have participated in a decision, organizations have been hierarchical for a reason – they are more manageable that way.

Primary Research

Methodology

Our primary research focused on three different groups: (1) ESS vendors, (2) ESS implementers and (3) medium-large organizations with ESS implementation experiences. After familiarizing ourselves with ESS research literature as well as key case studies in knowledge management, we developed an interview protocol that was designed not only to draw out what interviewees believed to be the key barriers to adoption for ESS, but also how companies defined what ESS meant to them, where they saw a need for ESS within their organization, and how they approached implementations.

To differentiate between our different interview groups, we created separate protocols for ESS vendors/implementers and ESS customers. [See Appendix A]. Each interview was scheduled for 60 minutes when possible. In some cases, we followed up with more questions regarding specific points that came up during the interview. We contacted several companies soliciting interviews for our research project.

Summary of Interviews

Kathryn Everest, Director, Strategy Consulting, Jive Software

As the director of the Strategy Consulting Group at Jive Software, Kathryn assists her clients to successfully implement Jive's social software platform within their organizations and business ecosystems. She focuses on the business perspective of implementation. In speaking with Kathryn, we attempted to gain both perspectives of ESS from the vendor side as well as from a customer side (Jive uses its own social platform internally to foster collaboration).

Kathryn described Enterprise Social Software as having three major components: (1) two-way communication: breaking down the broadcast paradigm and empowering users to initiate dialogues to

obtain what they need, when they need it, (2) collaboration: working with the people you already know more effectively and (3) social networking: providing a way to effectively collaborate and make connections with people that you may not know.

Kathryn saw the key need for ESS in Jive as a platform that enabled the company to operate and collaborate with speed and agility across geographic boundaries. Jive is a relatively small organization (approximately 300 employees), but has offices in Toronto, Colorado, Portland and Palo Alto.

When asked what the key barriers to adoption [and how to best address those barriers] for ESS were, Kathryn identified a number of key challenges. In her experience, a key challenge to ESS adoption was in shifting clients' workforces preexisting notions of ESS: ESS participation was not supposed to be something that was "done at the end of the day" or "when you have free time". The key challenge lies in helping a workforce understand that participation in social software occurs throughout the workday and not on the fringes. Helping customers reintegrate the practice of using social software into the business process was very important to promoting adoption; if the workforce did not understand how to use social software to address specific day-to-day problems, adoption would suffer. Another key barrier to adoption was what Kathryn identified as 'social networking challenges'. Specifically, when companies workforces do not understand the skill of social networking. This is often a generational problem, where the older workforce may not understand the rising importance of social networks. Often, a barrier to adoption lies in the lack of understanding around why ESS is needed. In Kathryn's experience, much of the social networking challenges can be addressed by having a clear strategy for how ESS is introduced to the workforce. There should be an early initiative to introduce a workforce to an ESS platform. When new employees are hired, the fundamentals of how to use ESS within the organization should be a core part of any on-boarding process. By introducing ESS early and clearly highlighting basic tasks ('this is how you build your network', 'this is how you get your opinions out there'), employees are provided fundamentals for participation.

Kathryn also recognized that individual company cultures may serve as a potential barrier for ESS adoption. Identifying positive and negative attributes of an organization's culture (with respect to

ESS adoption) is an important starting point. Organizations can leverage the positive aspects of the culture to encourage adoption and understand what negative aspects may need to be mitigated. It also allows organizations to identify where they may be able to target early success in ESS adoption. How an organization incentivizes, measures, and recognizes its workforce has an impact on the willingness of that workforce to participate in a ESS platform. Kathryn argued that if reward structures are focused on the individual, this was a warning sign; ideas are rarely the product of a single individual, and in order to encourage collaboration and participation in an ESS platform, rewards needed to be on a collective basis. Additionally, in Kathryn's experience, financial rewards can motivate individuals up to a certain point; recognition, self-actualization and a feeling of accomplishment were often a more powerful factors. Leveraging these motivational factors in an ESS deployment strategy could go a long way in encouraging adoption.

Kathryn described the user adoption of social software within organizations as non-linear and consisting of three different waves of users. The needs and motivational levers to incentivize each of these groups is very different. She referred to the initial group of users as Wave 1. These users are affiliated with communities of practice or affinity groups where teams have self-organized around a cause or initiative that can be addressed with ESS. The users typically are social software savvy and are often self-starters, requiring little handholding in participating in the platform. Wave 2 users are typically happy to sit on the periphery until someone or something brings them into the technology. They are not self-starters, and therefore need clear business processes that pull them into using ESS. Finding use cases that are business critical which can be addressed with Enterprise Social Software is a crucial step in motivating Wave 2 users to actively participate in an ESS platform. The last group, Wave 3, is often those who do not understand how social software could benefit them, even if there are defined business use cases. Encouraging these users to adopt ESS requires an incredible amount of handholding and a prescriptive methodology for how to use ESS. This group of users is often the hardest to bring on-board. As they proceed through the three waves, organizations will see a plateau in participation for each wave

of users. Understanding the differences between user groups and the need for different strategies to attract each of these groups is critical to encouraging adoption across all waves of users.

Lastly, Kathryn spoke about the importance of having an influential project team leader in any ESS initiative. Typically, the most successful ESS project teams are headed by an individual who is: (1) well-respected and well-known in the organization, (2) has been with the organization for some time and is deeply familiar with the structure and culture, and (3) has a holistic perspective of the organization. Often ESS deployments require a significant amount of time to manage, and organizations make the mistake of hiring a new person to lead the initiative. These individuals were automatically at a disadvantage for encouraging successful adoption within the organization because they did not have the networks or credibility and had limited knowledge of the company culture.

Gia Lyons, Strategic Advisor, Jive Software

Gia helped start the strategy consulting team at Jive Software in 2008 and transitioned into the marketing group at Jive in an effort to bring some of the knowledge and practices from strategy consulting to sales. Her role at Jive is to work with potential clients to enable sales.

Gia defined Enterprise Social Software as collaborative tools that are differentiated from the knowledge management and “older” collaboration tools of the past in that they are opt-out: everyone automatically has access and knows about the social software platform, and where this platform is no longer solely about the content within the system, but about interactions between participants to discover and transfer knowledge. She stated that a common need for Enterprise Social Software amongst her clients was the desire for greater employee engagement, with the belief that deeper employee engagement leads to improved employee performance which leads to better corporate performance. Some of the other common needs for Enterprise Social Software amongst her clients are: (1) knowing who was in charge and what they think and are saying (ie: when leaders begin to blog), (2) to facilitate “serendipitous discovery” of knowledge, and (3) making knowledge sharing/transfer more transparent across the entire organization.

From Gia's experience, some of the key barriers to the adoption of Enterprise Social Software for her clients were: (1) stakeholders questioning the necessity for the tool, (2) generational barriers, and (3) appropriate staffing for an ESS deployment.

An common response to a new tool from stakeholders has often been, "haven't we already tried this before with X tool?". Internal resistance to changes is not new, and this barrier was most effectively addressed when a stakeholder analysis was performed and usage of the tool was encouraged from top-down, middle-through (middle management) and bottom-up channels. It was critical to identify key players in the organization and get their support. Who these people are, largely depends on what the goal of using social software was. Having clear business goals for what needed to be accomplished using social software was crucial in addressing internal resistance to change. Designing and framing the ESS as "a better way to do something you are already doing" and selling that to decision makers or key people in the organization often encouraged adoption; conversely, organizations who did not define clear and measurable business goals, and garner support from key players found that their deployments became unwieldy. Gia also mentioned an interesting tactic to encourage adoption: they let each of their customers give the product a name – Jive is never called *Jive*. Instead, every firm comes with names such as *IdeaSpark*. This creates a sense of individuality to the product.

The second barrier that Gia described was the generational differences within a workforce. Older employees who are not familiar with social software may be more reluctant to to participate, even though they often have a wealth of valuable knowledge. For example, one clients' workforce consisted of older engineers who were a valuable source of knowledge, but had no experience with social software. Getting these engineers to participate and share knowledge required re-framing the product in the context of "what's in it for me?" One mechanism to address the age barrier is to use "reverse-mentoring". Gia described this as having younger employees who are comfortable using ESS show the older generation how to proactively share their knowledge using social software and why using social software can help them address a personal pain point. When these engineers understood that ESS could relieve the

frustration of having to answer the same technical question repeatedly, they had a clear incentive to use ESS.

Lastly, Gia emphasized the importance of a social software community manager and strategist (often the same person) who are responsible for overseeing and advocating the use of the ESS platform within the company. An effective community manager/strategist often has a large impact on the successful adoption of ESS within the organization. Both roles can occupy a significant amount of work time (40-50%), and Gia stated that many companies are already including them within their total cost of ownership. Gia observed that the roles are often self-discovered: in the beginning stages of an ESS initiative, there is usually a small group of users who are passionate about changing the way people work with social software. It is from this small population of enthusiasts that community managers and strategists emerge. Community managers/strategists can come from a variety of vertical backgrounds (IT, R&D, Corporate Communication, etc), are typically well connected and respected within the organization, have a clear understanding of the internal culture. The community manager/strategist often initiates the conversation with social software vendors in search of a product to meet their organization's needs.

Gia described ESS adoption as an extremely iterative process. Jive often sees clients follow the strategy of: "start early, start small and move fast". They start with a specific vertical group within an organization (sales, R&D, engineering etc) and build the solution around a clear business process and use case. Picking the right first vertical use case is an important decision: it is best to pick a group for which success relates to business performance. Success in these areas will create more buzz within the organization. As the tool gains recognition, additional vertical use cases can be added through the same iterative process. This method enables a fast initial deployment with subsequent on-boarding from other groups as buzz around the product spreads through the organization. Along with the vertical use cases, Jive recommends incorporating a horizontal use case if possible; implement the tool with basic functionality across the entire organization. The functionality will not be deep, but it will be accessible across the entire organization and this is a good starting point. From there, you can continue to build

additional vertical use cases. The strategist must continue to act as an advocate for ESS throughout this process. Gia argued that companies which successfully implement a single vertical or horizontal and declare success are missing the larger picture: they have only captured the early adopters. The rest of the organization, who could largely benefit from social software, (but need to be shown why it matters) are left behind. Early adopters often represent only a small segment of the entire organization, and successful adoption should be framed across a broader organizational context.

Brad Dedrick, Senior Manager, Model Metrics

Brad is responsible for Salesforce Chatter implementations at Model Metrics. Model Metrics is an enterprise consulting firm located in Chicago, IL that specializes in implementing cloud computing tools. Per our methodology, we classified them as an implementer. We spoke to Brad, hoping to learn a little more about how they encouraged adoption of Chatter for their various clients. We were also interested in learning about some of the challenges they faced implementing a tool they didn't write - Chatter was a third party tool.

Interestingly, Model Metrics also implemented Chatter for internal use. They redeployed their initial implementation after they were advised about the methodology towards Chatter implementation. Salesforce summarized this process as a. Define a use case b. Set up a collaborative environment c. Use their guidelines and d. Establish best practices. Brad noted that after following the process, they found the implementation to be a success.

Building on to this discussion, we asked Brad to talk about what they saw as the key pain points that they tried to address with every implementation of ESS. He identified three needs that they go after: i. Make it easier for people to find knowledge by ensuring widespread adoption. ii. Enhance the collaboration aspect of the tool and iii. Improve employee morale - use the tool to create some level of camaraderie and belonging.

Brad identified several key barriers that any organization faced when implementing ESS. The most common concerns that organizations expressed were that ESS was too cutting-edge for them, and

adoption would be too low, as a result. He also mentioned the age factor - older employees were often not attracted to new technologies, especially in the case of social media.

Other concerns revolve around security. Many firms, especially old and established ones, and those on certain industries (insurance, finance, securities for instance) hold a lot of sensitive information. Even if the ESS solution operates within closed walls, there is an anxiety about the kind of information that is shared with the workplace. Also, in many cases, organizations have already made previous attempts at solving the knowledge management problems. This means that there are certain similar tools that already exist, and there are fears that ESS would be nothing more than “yet another tool” that is available to everyone, but no one uses.

Next, Brad talked about some of the considerations they make when they customize ESS for their clients. One of his observations was that while some organizations are very open-ended about how they share data, others are much more account-centric, and have serious controls that govern who has access to what data. One needs to put in some effort into understanding these patterns. Also, different organizations have very different collaboration environments. Based on personality types, project needs, and so on, people may use cellphone, instant messaging, email etc. to collaborate. Understanding these usage patterns helps to identify the best initiation strategy for ESS.

Brad then walked us through the typical adoption process. the first step is to establish a communication plan ie what information will be shared, and with whom. The next step is to explain the rationale for the tool to the people who will be using it, and then educating them about the product. Next, the management sends a message (or directive) about the product, and how it must be used. The vital next step is identifying *champions* - key, influential users. Typically, they aim for one such user in every department (or company) function. This is someone who uses the tool everyday, in the right manner, and can create a "follow the leader" effect. These people assume the roles of evangelists for the ESS tool in the organization.

When asked about how the timeline for the typical ESS implementation works, he noted that adoption isn't an end-state, but instead an on-going process. There tends to be a spike in usage , followed

by a plateau, and then a gradual increase as use cases are refined. One of the challenges he mentioned was that although the “finish line” for a successful implementation is usually defined, it needs continuous monitoring to account for changes.

We asked Brad about the kind of representation that they desire from the company when implementing the tool. Some of the characteristics that he mentioned were: they should be end-users themselves, they should be businesspeople not IT folks, and fairly senior but not C-level. He also added that this was typically not much of a problem, since they always began with a certain core team which satisfied this requirement.

Next, Brad talked about some of the ways they overcame challenges to the adoption process. For starters, defining use cases formally makes a huge difference. One of the ways this can be accomplished is via an “internal” roll-out - i.e. beginning with a pilot group. Next, it helps to delineate where the tool fits in along with the other communication tools used in the enterprise e.g. when should an employee use Chatter vs. instant messaging? When we asked about whether the vendor’s guidelines were useful, they noted that the guidelines did give examples of their internal implementation. However, 80% of this was common sense, and the rest would need to be modified in order to meet the case requirements. Also, Brad mentioned the importance of clearly communicating benefits. He mentioned an example where multiple alerts were sent via email to every employee. Now, the company is using Chatter to send these alerts, and the end user can choose to ignore content as they please.

Next, we asked Brad if he thought there was a “right” size for companies using ESS tools. Was it easier to implement such a tool for a certain amount of employees? Brad observed that it was easier to work with smaller organizations. He defined small as <250 employees, and some of the key characteristics were: easy access to the top leadership, flexibility, and adaptiveness to change. He went on to say that there were much more ups and downs with larger organizations. They have many more moving parts, and hence there are likely to be factions that may oppose new technologies/ideas. Also, smaller organizations are “easier to wrap your arms around” to get a full buy-in to the solution.

Jan Sijp, Director of Product Management and Larry Wagner, Sr. Director of Engineering at SonicWALL

Jan Sijp and Larry Wagner worked on implementing SharePoint for SonicWALL, a network and data security company with a global presence. Jan has worked in a product management capacity, and Larry has worked as an IT systems implementer for them. The company has existed since 1991, and has about 1000 employees in geographically diverse locations. We were hoping to learn about their experiences with implementing an ESS tool. We were also interested in their opinion of some of the newer ESS tools on the market - such as Chatter, Jive and so on.

In their view, Enterprise Social software is a tool that would let employees exchange information and collaborate with each other. In addition, the social component is real-time and more reactive in nature. They went on to observe that their systems are a little different, and they don't think of social networking in the same vein as collaboration. Collaboration, in their view, is a more long term, strategic initiative, and content is continuously accessed and modified. Most of the data is very sensitive and only important for specific periods of time.

They mentioned that the inclusion of a lot of "bad", not-so-useful content hampers social software. A lot of the "updates" that ESS users share with each other are not of significant value, and distract users from their work. Also, they mentioned that they tried using some of these tools to connect expert groups in real-time (for instance, trying to find someone who has faced a technical issue before, to reduce incident response time) but they weren't very successful. They think that these tools are very much in their infancy right now, and it will take some time before they are ready to solve enterprise issues.

Also, according to them, social networking tools do not fit in along with collaboration tools such as SharePoint in the gamut of Knowledge Management tools. They noted that social networking tools contain data that is relevant in a very small time span - that of a few minutes to a few days. Hence, while it may fulfil short term information needs, there is no lasting value to the data.

Next, we asked them about why they chose SharePoint as the right collaboration tool for their environment. They were looking for something that was manageable easily by the end user, and at the same time, worked great out of the box with minimal configuration. Also, Integration with existing systems played a key role. The company extensively used Microsoft Project, and hence the ability to pull Project files was a key factor. They owned several Microsoft licenses, which were needed for SharePoint integration. Hence, it was almost about amortizing past investments more than making new ones.

Their roll-out strategy was thus: the implementation was designed to mimic the old system as much as possible. They began the roll-out with product and project managers, and demonstrated uses of the product. Some of the organizations were more apprehensive - for instance, developers, who felt that they now had to input some information themselves (earlier, this was done by one of the project people). It was a paradigm shift, and some end-users noticed benefits before others. they observed that when usage was governed by a top-down directive, teams took much longer to see the benefits of using this tool. They arrived at the conclusion at giving end-users a say in the use of the product was useful. Also, they observed that their early adopters were people on the product and project teams. Developers had some concerns that the more data they shared, the more questions they would need to deal with. Creating a sandbox-like environment with limited access helped overcome these feelings.

Next, our discussion moved back to some of the newer ESS tools on the market. Their opinion was that these tools result in information overload, due to irrelevant data being blasted to over a thousand people. They felt that urgent information requests could be handled by phone calls instead. That said, they did acknowledge the pitfalls of excessive email. Not only did it consume a lot of employee time on a regular basis, it also created storage, security and other infrastructure concerns.

However, at the end of the day, they view current ESS tools as a “third way to be pinged.” They feel that social software will get absorbed into the more common enterprise tools as a feature, as opposed to existing as its own application. They view ESS as an attempt to make something out of an idea generating a lot of buzz in the consumer space. On the other hand, existing content systems are focused around more hardcore data, not opinions. When building products or marketing them, hard facts score

over opinions. They noted that they consistently use SharePoint as a go-to point: "If it ain't on SharePoint, it ain't true". Also, wikis and other community-oriented tools rely deeply on critical mass to be successful. Here, they also mentioned some of the challenges they faced in the externally-facing social media: trying to get "followers" etc. for their company/product's social presence.

Mark Egan, CIO, VMware

VMware is a global leader in virtualization and cloud computing infrastructure. The company employs around 10,000 people and has offices across the globe. We spoke briefly with CIO Mark Egan about VMware's experience and strategy for ESS within the company. He defined ESS as being about collaboration. Specifically, how to get people to interact with each other outside of e-mail, phone, or face-to-face--how to get people who are not in the same geographic location to collaborate with each other.

When asked where the key need for ESS was in VMware was (if any), Mark conveyed the need to channel the 10,000 employee workforce that was spread across the globe to share information and solve common problems. Two functional units that Mark identified who had the most pressing need for a collaborative platform was R&D and Sales/Marketing. Because software development is a highly collaborative process, and development teams are often formed across geographic boundaries there is a need to capture knowledge. Often, when a VMware development team encounters a problem, there is a high probability that the same problem has occurred somewhere else in the organization; there is a huge need to provide knowledge of existing solutions to these teams. Sales organizations who are engaging a customer would like better knowledge about who else in the organization may have interacted with the same customer. Without some social collaborative tool, discovering this knowledge is extremely difficult--VMware's sales organization has over 3,000 employees who may or may not know each other. Empowering a salesperson with past knowledge of vendor-client interactions and key milestones, events, or people can lead to closer customer relationships.

Mark conveyed that both R&D and sales have used a variety of ESS tools, including Jive and Socialcast to name a few. Some of these tools had been purchased, authorized, and coordinated with IT,

but others upper management and IT had no involvement with. There is no requirement for upper management to approve of a ESS tool for use within VMware. Most of the experience with social collaborative tools at VMware has been ad-hoc initiatives and trial and error based. Those tools that were most successful would remain in use, while others that were not effective would be dropped. Mark felt that at VMware, the adoption of collaborative tools had to come from bottom-up, grassroots initiatives by the groups who saw a need for that particular tool. VMware's employees consist of technology savvy users and groups who have specific needs and these groups are encouraged to pick a tool that may fill that specific need. Often, even when an ESS a tool was successful for one task, it was not suitable for the next problem. An executive level decision for an organization-wide collaborative platform would run against the organization's culture and structure.

With regards to concerns over security and the use of ESS, Mark felt that a careful balance had to be struck between functionality and locking down a tool. Mark recognized that the security area is a true dilemma--you want people to collaborate, but there is always the risk of IP leak and loss of information. Mark believed that employees are not likely to actively think about these concerns and that many of the tools available today are not very mature when it comes to security controls; user education and policy controls are more effective than any technical barriers today. Striking a balance between leveraging the relevant collaborative features from these tools and common sense policies and practices is what he advocates for VMware today.

Mark felt that it very difficult to "make someone collaborate" using a platform and that benefits are largely individually realized. You have to start with a problem, dilemma or specific use case. He felt that at VMware, R&D was in the best position to take the lead in utilizing ESS with the theory that there is a high need for collaboration between geographically disparate groups with the goal of building new and innovative products which is VMware's core business. Various ESS tools should tried, and those that are able to address the problem or dilemma will continue to live on.

Debbie Cheng, IT Project Manager, Chevron Energy Solutions

Debbie is an IT Project Manager at Chevron Energy Solutions (CES), which is a small (about 300 people) division of Chevron Energy. It used to be a part of PG&E, and hence has been operating fairly autonomously until now. Currently, they are getting more and more integrated into the corporate Chevron environment. They are staffed just like any other organization, with project engineers, IT staff, management, R&D, and sales people. Debbie was responsible for Salesforce Chatter for CES, and we were hoping to learn about some of their experiences with the process.

We asked Debbie about some of the reasons why they chose Chatter, and she mentioned that they were already using the Salesforce CRM tool at CES. When Chatter was introduced at Dreamforce (the annual Salesforce conference), they found it to be interesting. Also, it was free, since they were Salesforce users already.

Debbie defined Enterprise Social Software as something that would enable access to real-time information and collaboration, using mobile phones and/or cloud computing. She explained that Chevron needs to spend a lot of time (~60%) on compliance, and hence very little new product implementations occur. She expects that ESS tools can help fix some of these issues.

Their implementation process went as follows: They began a pilot with the younger, social-media savvy business development people. The tool was turned on for everyone by default (i.e. opt-out), but there was low initial adoption. Users didn't see value in entering data into the system, and didn't view it as something that was directly tied to their role. Most of the employees were not into using social media tools at, or outside, the workplace.

The tipping point for them was when a Salesforce customer rep presented to the Marketing Director. This piqued senior management's interest and they wanted to have some visibility in the sales timeline. There was an appreciation of the fact that this data can be accessed on the move via smartphones etc. Also, users began to see benefits of the connected nature of the tool. That said, the tool hasn't become a standard for other Business Units yet. Things are even more complicated because corporate Chevron has begun the adoption of Yammer.

A few interesting facts about corporate Chevron's decision to go with Yammer surfaced. Firstly, there were no established guidelines. Also, the system was currently opt-in. Adoption was rather low. One of the key reasons they were pushing for Yammer was the rumored possibility of integration with SharePoint, which is heavily used at Chevron. While she acknowledged that SharePoint was a possible alternative, it was used more as a document sharing tool, than a knowledge sharing tool.

CES are very much in the midst of their rollout process. Some of the ways they are trying to drive usage is education, using examples of use cases as well as examples of internal use at Salesforce. Presently, their heaviest users are people directly involved with business development. During proposals, there is a lot of back and forth on revisions to pricing/product etc., and the tool has proved helpful in that process.

The key challenge for them is to demonstrate that the tool can be useful to other groups. For instance, the Operations group has not taken interest. There is a need for content that is specific to their requirements. They are not plugged in to Salesforce either (unlike their pilot group) which makes selling to them harder. In general, a lot of silos exist, and it is difficult to get people to share across groups. There is a lot of geographic dispersion, with employees scattered around several cities. She made an interesting observation about a lot of activity from a small satellite office located in Hawaii.

Debbie also expressed some concern about the quality of the data shared through the tool. Often, a lot of stuff is shared, and not a lot of it is directly relevant to the task at hand. This can be really distracting for employees. There is no filtering process, and many of the updates are too small to be of any significance (for instance, the name of a project changes). The user needs to individually set their daily limits, which they rarely do.

Jeffrey Abbruzzi, Director, eCommerce Application Delivery, Williams-Sonoma

Jeffrey is the director of eCommerce application delivery at Williams Sonoma, retailer of home furnishings and gourmet cookware in the United States. They are a fairly small organization (about a 100 people). One of the interesting aspects of their organization was the fact that due to their smaller size, they did not have any dedicated enterprise software manager. Hence, even though their team did not technically own efforts towards improving collaboration, they were the ones to introduce Yammer to their company.

When asked about his understanding of ESS, Jeffrey defined it as methods for sharing information and maintaining an archive that goes beyond simply e-mail and phone calls. They look at it as a way of augmenting their business and creating an “institutional memory” – a bank of knowledge that can be revisited as and when needed.

Similar to some of our interactions with key clients, they defined some interesting use cases for using ESS. They mentioned that while they don’t offshore a lot of their development, they see a lot of value in the tool when working with remote and offshore teams. They went on to mention that companies that offshore a lot of their development processes would find even greater value in these tools. A particular scenario they described was as follows: When they work with their dispersed teams, trying to co-ordinate a software release, sometimes due to extenuating circumstances certain people need to join the meeting on a "distress call". These people need to be brought to speed in little time. Sometimes there are (in this scenario, or otherwise) long, never ending e-mail threads, and new people brought in later need to be able to hit the ground running. Having an archival log of shared activity is a huge help in these cases.

When we asked him about the adoption process, Jeffrey acknowledged that since there is no central group that works on these issues, the product grew rather organically. Again, since there isn’t a lot of geographic diversity, the need for the tool is not too strong all across the organization. He went on to observe that mandating what people should use and how they should use it wasn’t the way they wanted to approach it. Instead, they wanted people to “discover” use cases themselves.

They haven't considered other tools yet, and they did point to the fact that, for now, they were able to do just fine with the free version of the tool. About Cross-unit collaboration, he said that they hadn't seen a clear need emerge just yet. They primarily use it for interactions between the software delivery team, product management and the Project Management Office. He also went on to say that a major concern for these tools was the use of the Freemium models. They need to get users to pay to survive, and often it is difficult to align the needs of an entire organization on the needs of one platform, hence the pay-wall may never be approached.

Another concern he addressed was the tool overload problem – there are way too many tools that any enterprise uses, and ESS may be reduced, at the end of the day, to yet another tool. He observed that as retailers, many of their employees were heavy users of corporate e-mail. At the end of the day, this could be just another queue that they need to check. He then went on to talk about ways to incentivize users – his observation was that all methods and techniques aside, people will ultimately only use a tool if it gets the job done.

Jason Rothbart, Sales Account Executive, Salesforce

Jason is a sales account executive for Salesforce, working with companies in the healthcare space (around 2000 employees and larger). He works with these companies to identify business problems and how Salesforce solutions can help them. Salesforce recently introduced Chatter, a social component, into their CRM platform (Salesforce). In his experience, Jason identified key barriers to adoption of Enterprise Social Software as: (1) a lack of knowledge of what it [Enterprise Social Software] means and (2) reluctance of the openness of social software: there is a concern that ESS will be like Facebook—where employees may share confidential information or irrelevant information.

Jason talked about the need for having both a top-down and bottom-up approach to adoption. They wanted to let Chatter “go viral”, but at the same time, providing some level of guidance to let them know what they can do with it. Identifying a bunch of departments or *use cases* was a very effective way to approach adoption in Jason's opinion. It allows the client to focus on one group or problem, and then

move out from there. Overall, Jason felt that, while top-down/bottom-up approaches to encourage adoption would be different between companies, a top-down, mandated approach was often the most effective. However, Jason differentiated that a “thou shalt use Chatter” approach isn’t the best approach, but that there were plenty of other types of “mandates”, such as discontinuing the use of legacy systems (taking away the old way of doing things), tying compensation to use, or executive communication guidelines (requiring that employees use the tool to communicate with them). How to determine what level of mandate often depends on the company and its culture.

Jason stressed the importance of change management and planning when pursuing an implementation of Chatter: identifying the appropriate stakeholders, having the appropriate executive support, developing a technology plan for the implementation, and training. The technology itself is very easy, the change management should focus on *when* and *how* to use Enterprise Social Software. This method is different than the change management involved in more “static” platforms like ERP. Enterprise Social Software is much more dynamic, and the challenges are more focused on how to introduce this dynamic component into organizations, especially since organizations often have a lot of structure and process that often runs counter to the dynamic nature of ESS.

Jason also described adoption as an iterative process. The first adopters are generally more: “the people that try new things quickly, read blogs, try to think outside the box, they’re frustrated with legacy tools and are naturally attracted to [Enterprise Social Software]. These people will come from a variety of internal organizations (Sales, IT, etc) but they all share a common positive disposition towards Salesforce. However, it is often necessary to change strategies when engaging additional iterations of users. Salesforce has a “playbook” that identifies several different temperaments towards Enterprise Social Software, and the most effective way to approach that disposition (with adoption being the goal). As adoption proceeds, monitoring internal metrics built into the system is recommended. Early warning systems allow management to identify adoption problems earlier and to adjust use cases or offer more training or incentives. Jason identified potential incentives as being financial (bonus tied to participation in Chatter) as well as personal recognition and status--which is often a more effective motivational factor.

We attempted, but were unable to secure interviews with the following individuals/companies:

Megan Murray, Director of Collaboration Strategy, Moxie Software

Marianne Grobbelaar, IT Director of Customer Services, AutoDesk

Don Roberts, Sr. Director, Global IT Operations, Lam Research

Key Themes from Research

A review of our interviews identified several common topics/themes that were mentioned across our interviews. Many of these were a verification of the findings of our secondary research on knowledge management and Enterprise Social Software. The themes below are what we believe to be the most relevant [when an organization is considering deploying Enterprise Social Software] as discussed from all of our interviews. In our conclusion, we present a model for ESS adoption based on the key themes that emerged from our research.

Find a champion

Almost all of our interviews pointed towards the need for a “champion” - a super user, who has the ability to take charge of driving adoption of the tool. The Siemens case study also defined managers for their KM platform, who were the people that really drove broad acceptance of the tool at the company. But who are these champions? How can they be identified? How can they be helped on their way?

Based on our interactions, some dominant themes come forward: These are people who use the tool a lot, perhaps every day. Hence, they see a very compelling need for it. Also, they “get” the product – it’s about more than heavy use, it’s about *relevant* use. Since they understand why the tool matters, they are more likely to go out of their way to sell it internally. It’s important to note that they are more than what we would call *power users*, but rather *evangelists*.

Why the distinction? Borrowing from Geoffrey Moore's definition of these two kinds of users (Moore, 1991)– the power user uses a new technology for the sake of trying out something new, and his/her interest is purely in keeping in sync with the latest technology. The evangelist has the additional power of influence – he is able to convince others of the utility of the product. He sees the new technology as a way of gaining some level of competitive advantage, and is driven by the desire to be the harbinger of change. Hence, he sees a *business case* for the tool.

Where do we find these people? There is no single right answer, but there are some aspects about where they fit into the organization that are very desirable: they need to be well-known in the organization i.e. proven players, as opposed to new hires. This means that they tend to be fairly senior people, though not at the C-level. They have established significant internal networks, and can leverage these fairly easily. At the same time, they probably get the idea of social software – hence they might be heavy users of consumer social media. Also, while this is not a requirement, there seems to be a preference for them to be from the business side, as opposed to the IT side.

A significant amount of research since the mid-1990s is devoted to the idea of *thought leadership* (Thought Leader), and at their essence, this is the key quality of these people. A distinguishing feature observed in every thought leader, per Elise Bauer, is "the recognition from the outside world that the company deeply understands its business, the needs of its customers, and the broader marketplace in which it operates. Several large corporations have leadership initiatives, and hence those may be a good place to look for these champions. For smaller companies, this may be a slightly more difficult task.

Define a use case

Another key finding was that, identifying a specific and measurable goal was essential to ensure the tool's success. Our early research noted that social software is not a plug and play solution like another application the company may buy off-the-shelf, for instance HR software. Siemens observed that "hoping" for the end-user to find a use is not the best strategy. Once again referring to Moore's technology adoption model (Moore, 1991), the *pragmatist* – the majority of the user population, is not

likely to use a new product unless they are convinced that there is a genuine reason – does it help them do something faster? More efficiently? Is it more cost effective?

Almost each and every interview confirmed that having a clear and well-defined use case was essential to establishing that ESS was indeed an asset to the organization. Often, this is not very obvious – what is the best use case? The importance of non-technical leadership (as the World Bank case also confirmed) is key: since they need to define how the tool can be used, instead it becomes another toy lost in the enterprise toolbox.

Understand your target audience

From our interviews and secondary research, we found that having a deep understanding the users who will be using Enterprise Social Software (ESS) is extremely important. There are a number of different lenses by which to analyze a population of users who may be using ESS. We've identified some examples below that correspond to the research we have performed, however it is very likely that other relevant axis may exist when looking at additional firms. The key take away was to recognize the attributes that mattered in a particular organization—those which an adoption strategy could be effectively linked to.

Age

The research literature has indicated that age has a clear influence on the propensity to use social media (Brzozowski, Sandholm, & Hogg, 2009). Additionally, through our interviews with we learned that age was a huge factor in developing adoption strategies. Methods of reverse mentoring were often used by Jive Software to overcome the age barrier, but they also recognized that there are often older populations of users who will never see the value in social software.

Department

Department affiliation often created different needs for users. It is very important to understand the context in which populations of users existed. Sales teams often had different needs than Research & Development, and this impacted their choice of Enterprise Social Software (ie: Salesforce Chatter often associated with sales teams) as well as the willingness of other groups to latch onto the tool; at Chevron Energy Solutions, the marketing group were more motivated to use Chatter because it was relevant to their daily responsibilities (integrated thru the Salesforce CRM application). However, the Operations group had not taken much of an interest.

Culture

The internal culture of an organization can largely impact how ESS is adopted as well. We heard from vendors and implementers that their clients often have very different cultures and priorities. The key was to understand those priorities and to choose use cases that did not run directly against the culture. Incentives and reward structures are a good example of a culture component that came up in our interviews and research. We learned that organizations in which “the person who comes up with the idea gets the prize” (Jive Software) often faced challenges with sharing knowledge. In these scenarios, Enterprise Social Software would need to be implemented with a targeted initiative to collectively reward participation. At VMware, Mark Egan described his workforce as “sophisticated end users who are turned into the technology.” These “techies” were self-starters and more willing to try new tools on-demand. Having a deep understanding of the culture enables business leaders and vendors to more effectively define use cases that are meaningful and attractive to the workforce, or to let the users themselves set the pace of ESS adoption (as in the case of VMware).

Geography

Organizations have different geographical distributions, and this played into their specific needs for Enterprise Social Software. The eCommerce group at Williams-Sonoma are centralized

in the same office, and thus their ESS needs are different than those of Chevron Energy Solutions, where there was a large amount of information asymmetry between a satellite office in Hawaii and the main office in San Francisco.

Overall, we learned that success in understanding the needs of a given target audience really came down to understanding their pain points. Once those pain points were identified, use cases of ESS could then be created or modified to directly address those problems. ESS use cases or solutions that did not directly address a pain point, in a measurable way, were often regarded as “haven’t we already tried this already?” (Gia Lyons, Jive) or “yet another queue” (Jeff Abbruzzi, Williams-Sonoma) that required the attention of a workforce who already had too many ‘inboxes’ to keep track of.

For example, knowing that a group of engineers were struggling with answering the same question repeatedly, Jive was able to design use-cases that directly addressed this pain point. Knowing that sales managers were struggling to get timely updates on what was happening in the field, Salesforce was able to provide specific use cases with Chatter to address this need. Understanding your target audience is about knowing what key problems that keep them from accomplishing their work and finding measurable ways to address those problems with ESS.

Find the right mix of bottom-up AND top-down influence

As we discussed earlier, social software is bottom-up by design. This aspect of social software can be considered a key feature – this is perhaps one of the things that enable the architecture of participation. At the same time, there needs to be executive support for the ESS implementation to succeed. It’s important to note, however, that top-down support is often taken to mean a mandate – an enforced directive that the employees of the organization are supposed to follow. However, as our interviews illustrated, this isn’t quite the case with social software.

For instance, Williams-Sonoma employs a very ad-hoc, organic adoption process. Instead of mandating and governing usage, they wanted employees to discover the right ways to use the product

themselves. At SonicWALL, teams that had usage thrust upon them were observed to be one of the last ones to appreciate use of the tool. If the key decision makers are not sold on to the idea early on, it will slow down, or even result in unsuccessful adoption, as Gia (Jive) observed. Also, executive support gains even more importance when the company has successfully implemented the first vertical use case (for instance, the R&D team) and is trying to push for cross-unit collaboration. This was an issue that all of the end-users we spoke to mentioned.

As we have established before, access to knowledge is really not a new problem. Kathryn (Jive) noted that almost all of the clients she spoke to had considered, and even used tools that are supposed to enable or assist collaboration. Also, in several conversations, clients noted that they “encouraged” and “deeply valued” collaboration. However, when the discussion moved to trying to understand how they measured it, there was no response. Kathryn concluded that unless there were specific metrics, there was no way of knowing whether the tool was accomplishing anything. Hence, it’s important to not only define clear goals, and also make them measurable.

Approach Adoption as a Lifecycle

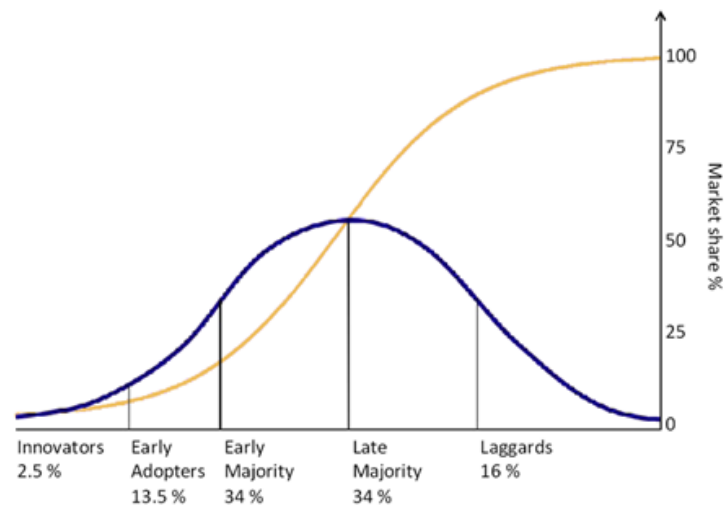
Most companies in that build technological products are familiar with the technology adoption life cycle (Bohlen & Beal, 1957). Briefly, it is a model that describes the adoption of any new product, according to the user population’s demographic and psychological characteristics. The cycle is shaped like a bell curve (or a standard normal distribution). The central idea is that every step of the adoption process brings on users that have key defining characteristics. The two important takeaways are: (1) Every step brings forth a new kind of user and (2) different sets of users have different needs.

User groups are divided into innovators, early adopters, early majority, late majority, and laggards (see Figure A below). Further research on the diffusion process (Rogers, 1962) identified some key reasons that influence the end-user’s decision to adopt or reject a process. We make an attempt to carry those ideas forward to the ESS context:

- a. Relative Advantage: How is this tool better than the previous way of doing this?

- b. Compatibility: How compatible is the tool with our present way of doing business?
- c. Complexity: How easy is it for me to use the tool in the intended way?
- d. Trialability: Can we experiment with the tool easily, without committing to it early on?
- e. Observability: Who else is using this? What do they think?

Figure A: Technology Adoption Curve



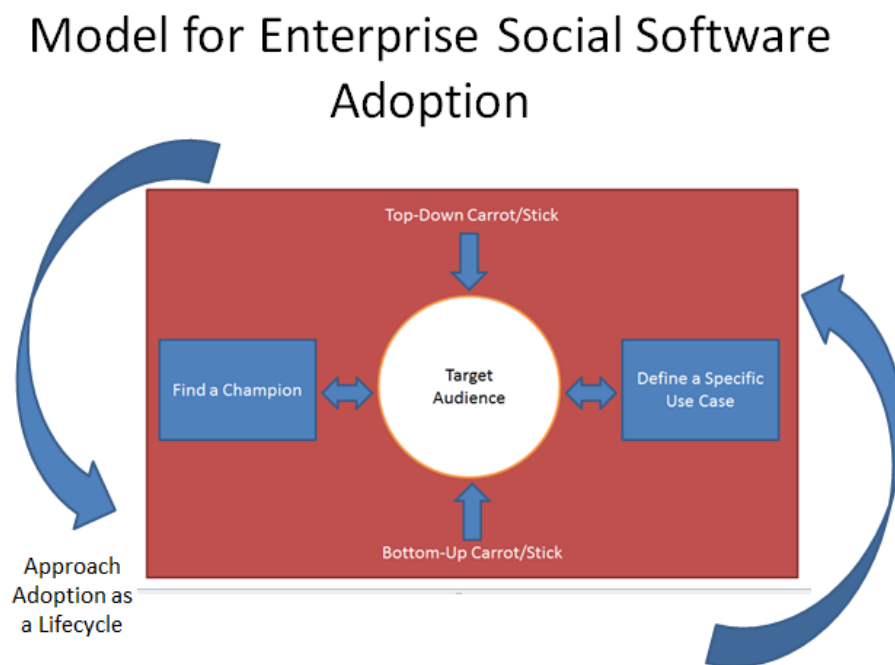
Source: Wikipedia

Our chat with Kathryn (Jive) reinforced many of these learnings, and also added another dimension to this thought: the strategies for pushing adoption are *very* different for each of these stages, and it is important to understand the evolution of needs. Another important question that follows is: How do we know when we are in a certain phase? Kathryn observed that towards the end of a phase usage tends to plateau – this is a sign that the old strategy can only take you this far, and for the next wave of adoption, you need newer methods to incentivize and encourage users. This plateauing pattern was also observed by Brad Dedrick (Model Metrics) and Jason Rothbart (Salesforce).

A Model for Enterprise Social Software Adoption

As we identified and explored each of the key themes described above, it was clear that these themes are not independent of each other: the themes interact and influence each other. In an attempt to describe these interactions, we propose a model of the key themes from our research (see Figure B).

Figure B: Model for Enterprise Social Software Adoption



At the center of the model is the target audience. They, understanding their needs influences how use cases are defined as well as how champions engage the audience when advocating ESS. The target audience should be influenced by the appropriate mixture of top-down and bottom-up pressure, and the model emphasizes the iterative nature of ESS adoption.

Summary and Conclusions

Our findings from both secondary and primary sources strongly suggest that implementing Enterprise Social Software is not a ‘plug-and-play’ solution. Barriers to adoption exist but the relevance of any given barrier is unique within each organization, use case, or user population. It is imperative that stakeholders identify those barriers that matter the most in the given scenario. A “one-size-fits-all approach” is ineffective. The overarching message our research suggests is that any competitive benefits that Enterprise Social Software offers cannot simply be purchased. ESS platforms only enable those benefits. Organizations must be willing to do the work to identify their key barriers to adoption and to implement strategies that address those barriers. Our model provides a starting point for medium-large organizations who are interested in capitalizing on Enterprise Social Software.

Our research spanned a period of five months, and we recognize that our findings and model is constrained by the number of interviews we were able to obtain during this time. However, we believe this is an opportunity for future research: it is possible that other barriers to adoption (outside of those mentioned in our research) exist; speaking with a larger set of stakeholders from diverse market segments might elicit additional insights into this problem space. It is also important to note that our research did not attempt to address the question of whether or not Enterprise Social Software was truly effective within the workplace. This is another relevant area of research that deserves future work.

This research project has been a great opportunity for us to put together many of the things we have learned in our 2 years at the I-School. We have applied concepts from coursework spanning our entire graduate program including (but not limited to): Project Management, Marketing Emerging Technologies, Opportunity Recognition, Strategy for the Information Technology Firm, Social and Organizational Issues of Information, Information Law and Policy, and Emerging Management Paradigms. We would like to thank our advisor, Coye Cheshire for providing excellent guidance throughout our project, all of our interviewees for their time and interest in our project, and the entire I-School community who helped us connect with many of our interviewees.

Appendices

Appendix A: Interview Protocol

For Vendors - Makers and/or Implementers of ESS Tools

1. Tell us a little bit about what your role within [organization] is?
2. What does enterprise social software mean to you?
 - a. Do you think our definition fits your model?
 - b. Where do you see an overlap? Where do we differ?
3. Do you see a key need for Enterprise Social Software in your organization?
 - a. If so, where specifically is that need
 - b. If not, WHY?
4. Do you have any concerns regarding security of IP leak, privacy or ownership when considering a potential Enterprise Social Software deployment?
 - a. How do you address those concerns?
 - b. Did you have similar concerns with “non”-E2.0 tools?
 - i. How did you deal with them?
5. Do you believe there are barriers to successful adoption of ESS?
 - a. If yes, what are those barriers?
 - b. If no, WHY?
6. Given that clients are not all the same, what factors do you consider when you customize the product for each client?
 - a. Do you have a strategy for industry verticals? Geographic regions? Company size?

- b. Would you say that most of your clients fall in one category? (What verticals do your clients operate in?)
- 7. Do you encourage adoption of ESS within a client's organization?
 - a. How?
 - b. Is this negotiated with the client, if so, how?
 - c. How much of this is seen as the client's responsibility?
 - d. What is the timeline? Do address adoption in the beginning, at the end, or is it more of a process?
 - e. Who does your sales team engage? CxO? mid-level management?
- 8. Who do you typically involve in the initial implementation process? Who drives this decision?
- 9. Have you had experiences working with clients where management wanted the workforce to collaborate more, but there were significant organizational and cultural barriers to collaboration?
 - a. What was your strategy to address these barriers?
 - b. Who spotted these barriers?
 - c. Was the management aware of their presence?
 - d. If no, propose hypothetical--where organizational and cultural barriers to collaboration exist (eg: top-down, mechanistic processes, a history of non-collaboration, geographically diverse etc.)
 - i. How would you approach this client?
- 10. Do you use Enterprise Social Software internally?
 - a. Have there been challenges to adopting these tools internally?
 - b. If no challenges, where is there room for improvement?
- 11. After you complete the implementation, how do you transition to the maintenance?
 - a. Do you let the customer own the install completely? Or is it a SaaS model?
 - b. Internally, who owns the product?
 - i. Senior Management, IT staff, joint cross-functional ownership etc.

- ii. Is it an enterprise-wide roll-out?
- c. What is your role beyond tech support?

For Potential or Existing Customers of ESS

1. What does enterprise social software mean to you?
2. Where do you see a key need for Enterprise Social Software in your organization?
3. Do you have a strategy for encouraging the adoption of new technologies within your workforce?
4. What do you believe are the barriers to adoption of Enterprise Social Software?
5. Do you believe there are barriers to successful adoption of ESS?
 - a. If yes, what are those barriers?
 - b. If no, WHY?
6. Do you have any concerns regarding security of IP leak, privacy or ownership when considering a potential Enterprise Social Software deployment?
 - a. If yes, how would you address those concerns?
 - b. If no, WHY?
 - c. How have you dealt with these issues with “non”-E2.0 tools?
7. Are you currently using Enterprise Social Software in your organization?
 - a. If YES:
 - i. What were the key factors in that decision? - Stories from other firms/ Salespeople demonstrated benefits/ “bandwagon effect” - but don’t say that/ etc.
 - ii. What Enterprise Social Software product are you using?
 - iii. Who is it meant for?
 - iv. Who actually uses it?
 - b. If not, are you considering?
 - i. How do/did compare potential vendors?
8. Have you used other tools in the past?
 - a. If yes:

i. What tool?

ii. Who was it meant for?

iii. Who actually used it?

1. If they don't know/haven't measured, ask them what they observe/expect

iv. Why are you not using it anymore?

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