

MASTER THESIS PROPOSAL

“THE DISRUPTIVE POTENTIAL OF SOCIAL SOFTWARE IN EBUSINESS”

UCP MBA 2002/2004

Social software enabled value networks should have clear advantages with respect to productivity, access to resources (talent in particular), and time to competitive advantage.

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Summary of the Proposal

The ability to hold groups together and make them work effectively across distance holds one of the keys to the power of the Internet in the coming years. As businesses become more global and more connected, loose business networks may be the future of all businesses.

There is a huge potential for technology to radically alter the way this gets accomplished. There is a new wave of software innovation, which we will refer to as Social Software, that may have a huge impact on business networks and the way they are managed.

In the proposed master thesis, several social software technologies will be presented and analyzed, as well as examples of their still incipient use. The potential impacts of these technologies will also be identified and analyzed:

- by allowing a company to take advantage of its enterprise relationship capital, social software strengthens competitive barriers through the increase of ties to suppliers and clients, reduced discounting and uncovering of cross-selling opportunities;
- by linking people across the enterprise with other enterprises, social software increases both the reach of the company without sacrificing richness and helps qualify opportunities faster, speed account penetration, and increase customer confidence and comfort;
- by adapting to its environment, instead of requiring its environment to adapt to software, social software has inherent economies of scope because it doesn't risk obsolescence which can be quantified as a reduction in cost to model, map and adapt to business processes.

The identified impacts will be tested against a survey of existing literature and cases as well as direct data from some organizations implementing or planning to implement social software infrastructures.

Social software enabled value networks fulfill the same role as the geographical business cluster in the techno-economical context of tomorrow. Social software tools are truly a revolution because of the way they combine technology with personal interaction. They're not just new applications; they usher in a new paradigm.

1. Introduction

The essence of the Internet and related software innovations like email is that they allow groups to work together more effectively. It's not just another one-to-many broadcast medium like television or a one-to-one medium like the telephone. It does both those things and also allows for many-to-many communications - something that could never be done before, outside of physical gatherings.

As businesses become more global and more connected, loose business networks may be the future of all businesses. On the corporate end, work is increasingly getting done by cross functional, cross disciplinary teams. Many times, the informal network of knowledge and skills of the participants influence the success of a project more so than what is depicted in the organizational chart. Cost cutting and outsourcing are causing the creation of ad hoc value networks which transcend company boundaries and coalesce around a specific project or business objective and then disperse.

The ability to hold groups together and make them work effectively across distance holds one of the keys to the power of the Internet in the coming years. There may be a huge potential for technology to radically alter the way this gets accomplished.

For example, the Napster phenomenon is less about challenging intellectual property rights and more about restructuring a new system of decentralized, distributed storage that has implications far beyond the music industry. The development of new kinds of software (like Groove) allows small groups to function much better than using email to suit many purposes. And new software (like Wikis) permits huge groups to collectively construct and edit massive projects like an entire online encyclopedia (Wikipedia) with no one in control¹.

This new wave of software innovation, which we will refer to as Social Software, may have a huge impact on business networks. We are already seeing some of these effects from

¹ http://en.wikipedia.org/wiki/Wikipedia:Policies_and_guidelines#How_are_policies_enforced.3F “**You** are a [Wikipedia](#) editor. Since Wikipedia has no editor-in-chief or top-down article approval mechanism, active participants make [copyedits](#) and corrections”

marketing automation, networking communities, and collaborative advances in contact and collaboration management tools (like the replacement of email or structured top-down knowledge management tools with weblogs/blogs and wikis).

For business and other large organizations, the promises may be significant and different from those held out last time around. The new developments in this phase of the Internet may not directly boost profits, but they could substantially cut costs, create other efficiencies, and boost the productivity of workers. Business more and more is getting done through ever-changing small groups and teams - the same groups that are being empowered through these new tools. Although much has been said and published about the importance of knowledge, knowledge workers, and the knowledge economy, there have been precious few practical tools for taking full advantage of specific knowledge. This new wave of social software might change that state of affairs by helping workers find who knows what, connect with them, and effectively share that knowledge.

2. Definitions

The idea of social software is new enough that people are looking for a definition. Some use it as a term for any computer software that supports group communications across networks. In that sense, it encompasses chat rooms, mailing lists, online gaming communities, Usenet newsgroups, MOOs, weblogs (blogs), and more. Others would like to limit it to newer software in which the emphasis is on the community, not on the technology that makes it possible, and which is adaptable to the ways in which people want to interact rather than imposing a structure on them.

We can thus say that social software's purpose is dealing with groups, or interactions between people. This is as opposed to conventional software like Microsoft Word, which although it may have collaborative features ("track changes") isn't primarily social. The primary constraint of social software is in the design process: Human factors and group dynamics introduce design difficulties that aren't obvious without considering psychology and human nature.

Recursively using a piece of social software (Wikipedia [3]), a simple definition of social software might be "any software that supports group communications. The dynamics of social software are significantly different from traditional interactions."

A more formal definition, based around Englebart's theories of augmentation, is proposed by Tom Coates [4]:

"Social software is a particular sub-class of software-prosthesis that concerns itself with the augmentation of human social and / or collaborative abilities through structured mediation (this mediation may be distributed or centralised, top-down or bottom-up/emergent). Social software augments these abilities by:

- *Removing the real-world limitations placed on social and / or collaborative behaviour by factors such as language, geography, background, financial status, etc;*
- *Compensating for human inadequacies in processing, maintaining or developing social and / or collaborative mechanisms - in terms of information overload,*

generating appropriate filtering mechanisms, building in solutions to compensate for reptile-brain activity, developing structures that are immune to blame-culture, recrimination etc.

- *Creating environments or distributed tool-sets that pull useful end results out of human social and / or collaborative behaviour - for example, generating software that facilitates human creative processes in groups, structuring the process (or having the process emerge through apparently unrelated interactions) so as to have a distinct and productive end result; “*

3. Social software survey and classification

While a broad definition of social software would make us consider the "cc:" line on e-mail the starting point of social software and thus survey and classify as social software applications like email, Usenet news, IRC or SMS messages, we can distinguish the type of software we are interested in presenting as software built around one or more of these premises:

- Support for conversational interaction between individuals or groups — including real time and "slow time" conversation, like instant messaging and collaborative teamwork spaces, respectively. An example of this type of social software tool would be **blogs (weblogs)**, where one participant answers to something another has said, and a third jumps in with more commentary, and the next thing you know, 40 others chime in. A big freewheeling discussion, with snippets of the interaction spread all over the place.
- Support for social feedback — which allows a group to rate the contributions of others, perhaps implicitly, leading to the creation of digital reputation. As an example we should consider the lengths that eBay sellers go to to maintain a good reputation.
- Support for social collaboration — allowing a group of people to produce content of mutual interest in a distributed manner. An example of this type of software would be **Wikis**, used in a successful manner in the production of the online free encyclopedia **Wikipedia**
- Support for social networks — to explicitly create and manage a digital expression of people's personal relationships, and to help them build new relationships. These usually involve some sort of "six degrees of separation" system. One example is the **Friend Of A Friend (FOAF)** proposed standard, an XML-based approach to define your interests, phone number, e-mail, and the degree and kind of relationships you have with others, including creating explicit links to their FOAF specifications (which, of course, refer to others' FOAF definitions, and so on). Another example would be **social networking sites** like Ryze, Friendster, LinkedIn, Orkut and others, which are explicitly social (or business) networking systems.

4. Social software use in ebusiness

The impacts predicted will be tested against a survey of existing literature and cases as well as direct data from some organizations implementing or planning to implement social software infrastructures.

Some examples:

New York PR executive James Horton posts daily observations about PR news and trends. San Francisco attorney Denise Howell blogs about intellectual property law and, well, blogging. And Ray Cox of Northfield, Minn., maintains two professional blogs, one tracking contracting work done by his Northfield Construction Co, the other reporting on his work and observances as a Minnesota state representative.

At Verizon, Paul Perry, a director in the company's eServices division, started a blog to keep up with news about competitors. Using a news aggregator, a popular blog-world tool that grabs and assembles syndicated "feeds" of content from Web sites and other blogs, people in his group can quickly post news they find on those feeds to the internal blog. DaimlerChrysler employs Web log software at a few of its U.S. plants; managers discuss problems and keep a record of their solutions. And American Airlines, where only 20% of the company's highly mobile workforce has corporate email, is considering blogs as a way to give employees more channels to management.

The Hartford Financial Services Group is already finding success using blogs in one of its mobile groups. A team of 40 field technology managers, who serve as links between The Hartford's network of insurance agents and the home office, set up a blog. They use it to share information about e-commerce features and solutions to technology problems. Before, email and voice mail sufficed, but email threads would die, and there was no way to search past shared information. "We don't get a chance to talk with each other as often as we'd like," says Steve Grebner, one of The Hartford's field managers, who thinks of the blog a little like a town square. "To me, it's like there's 14--or 40--brains out there, and you might as well tap into that knowledge base."

Nicholas Pizarro has wikis transforming the way people work at the company he founded, software maker Aperture Technologies Inc. Two dozen of the Stamford (Conn.) company's

100 employees use them to brainstorm, track projects, write and edit documentation, and coordinate marketing. That has eliminated countless meetings, conference calls, and back-and-forth e-mails. Says Pizarro: "Wikis allow this collaboration much better than anything else, so we get things done faster."

1UP.com, the gaming division of Ziff Davis Media, one of the largest technology magazine publishers in the United States, has been a Socialtext [5] customer for one year. New General Manager Tom Jessiman sought an efficient and effective alternative to email and attachments as a way of working together. Socialtext is a recently created company that adapts wikis and weblogs for enterprise productivity and scale. Using Socialtext Workspace for group communications has reduced email volume dramatically to result in soft cost savings in excess of \$1 million per year for a 50 person team. Project communication accelerated the project cycle of a four-month project by a month.

Antony Brydon, CEO and president of Visible Path Corp. in New York, claims that people using his software have reduced the sales cycle by 27% and increased the close rate by 22%, while the average deal size has gone up 10%. Efficiency is improved, he says, because cold calls are replaced with personal introductions, and salespeople get access to decision-makers.

That's how it worked for Curtis Estes, founding principal at Strategy Benefits Group LLC, a financial planning practice in Los Angeles.

Estes tried over and over again to meet a certain wealthy individual, without success. Then he went on Spoke, a social networking service from Spoke Software Inc. in Palo Alto, Calif., where he found 10 people on the network with connections to this person.

Within days, Estes had an introduction. "I expect Spoke will increase our revenues by 25% this year," he says. "It saves countless hours and dramatically increases our ability to get in front of our best prospects."

5. Thesis/Hypothesis and Predictions

Value Proposition

The value proposition on the use of social software can be understood by listing the kind of problems that currently keep CEOs awake at night: Lost revenue opportunities, a dearth of innovation, foundering productivity, dissatisfied customers, disgruntled employees, and lost learning opportunities. The value of social software can thus be proposed as related to how they help solve the six problems:

- It makes contributing knowledge simpler, easier, and more automatic
- It makes it easier to update knowledge on a timely basis
- It makes knowledge more context rich
- It allows the authors of key business knowledge to build and retain 'pride of ownership'
- It makes contributing knowledge more fun, since it becomes more like 'publishing'
- Each individual's 'collection' of shared knowledge is easy to define and assess at performance evaluation time
- It makes knowledge easier to route, to 'subscribe' to and to 'mine'

Potential Impact of Social Software on the firm's vertical boundaries

Since Social Software adapts to its environment, instead of requiring its environment to adapt to software, its value is embedded in these economies of scope (the ability for an asset to adapt to new uses without large transaction costs).

Most of the cost of enterprise software is in custom implementation, adapting to business processes. But the problem is that business processes constantly require redesign because of environmental changes. If a software-driven business process fails to serve people's activities, they will adapt using their informal network resources to get it done. In other words, when business process fails, social networking takes its place.

If Social Software continually adapts to its environment it doesn't risk obsolescence. This proposition can be quantified as a reduction in cost to model, map and adapt to business processes.

Potential Impact of Social Software on Industry Structure

By allowing a company to take full advantage of its enterprise relationship capital, social software strengthens competitive barriers through the increase of ties to suppliers and clients, reduced discounting and uncovering of cross-selling opportunities.

Potential Impact of Social Software on the firm's horizontal boundaries

By linking people across the enterprise with other enterprises, social software increases both the reach of the company without sacrificing richness and helps qualify opportunities faster, speed account penetration, and increase customer confidence and comfort.

6. Expected Conclusions

Businesses have typically invested in social software (initially groupware) that is aligned with management preferences for control over flexibility, often leading to software that is centralized, process-heavy and locked down. However, real-world collaborative patterns are better supported by software that is decentralized, flexible and extensible.

Now, after years of sites and software designed to support big and largely disconnected groups, developers are working on social software. This is in part because there are a number of interesting problems involved in helping people interact (identity, reputation management, conversational threading), and in part because the ubiquity of Web protocols means that developers can treat the Web as a platform. Rather than attempt to provide all functions to all people, the tools and services being developed can be combined easily and as needed, without having to be formally merged.

Fundamentally this might be a new and better way of creating business clusters. The traditional business cluster is a geographic concentration of interconnected companies and institutions in a particular field. Social software enabled value networks should have clear advantages with respect to productivity, access to resources (talent in particular), and time to competitive advantage. In a way, one could think of the business cluster as being a mid-way construct between the firm and the market. Social software enabled value networks fulfill the same role in the techno-economical context of tomorrow.

Social software tools are truly a revolution because of the way they combine technology with personal interaction. They're not just new applications; they usher in a new paradigm.

This new paradigm will be shown to have an enormous value proposition for the firm and to have potential impacts in the firm's vertical and horizontal boundaries as well as on industry structure.

7. References

- [1] “Social Software and the Next Big Phase of the Internet; A Conversation with Clay Shirky”
<http://www.gbn.org/ArticleDisplayServlet.srv?aid=2800>
- [2] “You Don't Know Me, but... Social Capital & Social Software”
http://www.theworkfoundation.com/research/isociety/social_capital_main.jsp
- [3] “Wikipedia”
http://en.wikipedia.org/wiki/Main_Page
- [4] “Plastic Bag, Tom Coates' blog”
http://www.plasticbag.org/archives/2003/05/my_working_definition_of_social_software.shtml
- [5] SocialText
<http://www.socialtext.com/>
- [6] FoafNaut
<http://www.foafnaut.org/>
- [7] Friend of a Friend (FOAF) developer site
<http://rdfweb.org/>
- [8] FOAFCorp: Corporate Friends of Friends
<http://rdfweb.org/foafcorp/intro.html>
- [8] LinkedIn
<http://www.linkedin.com/>
- [9] Orkut
<http://www.orkut.com/>
- [10] The Interactive Social Networking Industry Analyzed via the Value Framework™
<http://www.valueframeworkinstitute.org/Jan2004/feature.article.htm>
- [11] The Augmented Social Network: Building identity and trust into the next-generation Internet
http://www.firstmonday.dk/issues/issue8_8/jordan/