

10-2008

Developments in Practice XXXI: Social Computing: How Should It Be Managed?

Heather A. Smith

Queen's School of Business, Queen's University, hsmith@business.queensu.ca

James D. McKeen

Queens University

Follow this and additional works at: <https://aisel.aisnet.org/cais>

Recommended Citation

Smith, Heather A. and McKeen, James D. (2008) "Developments in Practice XXXI: Social Computing: How Should It Be Managed?," *Communications of the Association for Information Systems*: Vol. 23 , Article 23.

DOI: 10.17705/1CAIS.02323

Available at: <https://aisel.aisnet.org/cais/vol23/iss1/23>

This material is brought to you by the AIS Journals at AIS Electronic Library (AISeL). It has been accepted for inclusion in Communications of the Association for Information Systems by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Communications of the Association for Information Systems

CAIS 

Developments in Practice XXXI: Social Computing: How Should It Be Managed?

Heather A. Smith

James D. McKeen

School of Business

Queens University

Hsmith@business.queensu.ca

Abstract:

Social computing, enabled by the Internet and peer-to-peer computing (P2P), is a force to be reckoned with. Today, most observers believe that the changes we've seen in some industries, like entertainment, is just the tip of a huge iceberg that is going to hit many different sectors. The power of social computing to disrupt the traditional business-to-customer relationship is merely one of several changes we are beginning to see in organizations. Social computing also facilitates new ways of working, learning and collaboration, which are foreign to more conventional practices but which have considerable strategic potential if they are effectively managed. Yet currently, organizations in general do not appreciate its value and strategic potential.

Social computing's promise is that technology will fit more naturally into our lives because it will adapt more readily to our locations, preferences and schedules. The challenge for organizations is to understand how to use it effectively to deliver new forms of business value. It's easy to dismiss social computing as "just another technology fad" and most companies are approaching it very cautiously. The reality is that social computing is already a factor in organizations today even though we are still early in its evolution.

Keywords: Area of impact (consequences), Information technology management, Individual use, collective use, type of use, collaboration, coordination, IT Innovation, convivial use

Volume 23. Article 23. pp. 409-418. October 2008

I. INTRODUCTION

For the past several decades, large organizations have been in the forefront of deploying new technologies, but in recent years some IT managers have noticed that they are no longer on the leading edge of technology usage. With the mutual maturation of the personal computer and the Internet, the “bleeding edge” has been taken over by individuals who are persistently finding new and different ways to use technology for their personal benefit.

At first, it was just a few “geeks” sharing files with each other but when Napster burst into public consciousness in the late 1990s, the music industry and others were shocked by the rapidity with which a simple innovation was able to undermine an established commercial business model. While the industry fought back and Napster has been reined in, it is clear that peer-to-peer computing (P2P) is a force to be reckoned with [Smith and Konsynski 2004]. Today, for example, all branches of the entertainment industry are trying to figure out how to deal with this major threat, which few saw coming. And most observers believe that this is just the tip of a huge iceberg that is going to hit many different industries [Hinchcliffe 2006].

The power of P2P file sharing to disrupt the traditional business-to-customer relationship is just one of several changes we are now beginning to see in organizations. IT managers are recognizing that the interpersonal computing applications enabled by P2P and the Internet facilitate new ways of working, learning, and collaboration, which, while foreign to more conventional practices, have considerable strategic potential if they can be effectively managed. Evolving from the relatively anonymous sharing of music files, applications have become richer and more interactive to enable sharing of photos, videos, bookmarks, opinions, and profiles and to connect friends in a variety of ways. Collectively known as social computing,¹ the early “buzz” has led to prognostications that it will fundamentally rewrite the rules of how many industries work [Mayfield 2008; Tapscott 2006]. Yet currently, organizations in general do not appreciate the value and strategic potential of social computing, possibly because they are dominated by a kind of tunnel vision that is fixated on technology and information [Brown and Duguid 2000]. As a result, they often overlook the other resources available to them, especially those on the social periphery. In fact, many see social computing as an enormous time waster [Lombardi 2008]

Is social computing simply a social phenomenon trying to justify its existence? Or will it become the basis of future employee interfaces, new types of relationships with customers and suppliers, new ways of working and learning, and new sources of value and knowledge? To explore how organizations are conceptualizing and managing this new phenomenon, the authors convened a day-long focus group of senior IT managers from a variety of industries. In preparation for this session, participants were asked to consider the broad spectrum of technologies/applications they believe should be included in the term “social computing” and how these are being used in their organizations—either formally or informally. In particular, they were asked to consider the business impact of these technologies, especially on how people work and organizations relate to their customers, suppliers, or employees. Finally, they were asked to identify the concerns they had, as IT managers, about managing social computing.

This paper examines the current understanding of social computing in organizations. It first attempts to describe this somewhat “fuzzy” concept and to provide a brief introduction to the different types of computing that can be referred to by this label. Next, it looks at some of the factors that are driving the considerable hype that is building around it. The following section describes a view of the future organization in which social computing plays a key role and contrasts it with the reality of how organizations are currently using it. Then, we describe the challenges facing IT managers who need to balance two opposing views of how organizations should work and finally, look at some ways IT departments can prepare for a nebulous future in which social computing is at least part of IT functionality.

II. WHAT IS SOCIAL COMPUTING?

Social computing is the relatively new and broad term being used to denote the hardware, software, and applications that support any sort of social behavior. It is designed to create or recreate “social conventions and social contexts” [Wikipedia 2008] and enable people to use computing devices to interact with one another or communicate *through* them (as opposed to with the computer) [Roush 2005; Bray and Konsynski 2007]. This definition covers a lot of

¹ “Social computing” is a term that incorporates a number of technologies and behaviors, including P2P, cheap connectivity and Web 2.0. It is discussed more completely in the next section.

ground, however. Current estimates are that there are 48 million different social computing sites available, connecting millions of people in a wide variety of ways [Knights 2006].

Clearly, the rapidly evolving nature of social computing prohibits a comprehensive classification of its types and functionality. Nevertheless, given the sheer scope of this phenomenon, it is essential to attempt to understand it and its impact on both individuals and organizations. While any description of social computing is therefore bound to be incomplete and out of date as soon as it is written, it is hoped that this discussion will elucidate the concepts associated with this new dimension of computing and highlight some ways in which it could affect organizations over the next two-to-five years.

Broadly speaking “social computing” is the *result* of the interaction of four things:

1. **Cheap connectivity devices.** The ability to connect to the Internet through a variety of relatively inexpensive and mobile devices—e.g., cellphones, Blackberries, game consoles, iPods, and laptops—has made anytime, anywhere connectivity a reality [Roush 2005; Wikipedia 2008].
2. **P2P communication.** Direct connectivity between two or more users, without the mediation of an organizational “middleman” has led to an explosion of file and information sharing, e.g., music, porn, videos, VOIP, and created a layer of dis-intermediated communication that previously existed only through the telephone or by letter [Smith and Konsynski 2004].
3. **Web 2.0 applications.** Not a technology *per se*, Web 2.0 is a trend in Web design and application development that is specifically focused on how to exploit the connectivity and communication that is available today to facilitate social relationships and sharing between users [Wikipedia 2008]. In contrast to Web 1.0 design, which emphasized transactions and access to information, Web 2.0 design stresses interaction and mass participation [Raskino 2007]. Using the Web as their foundation and modular design techniques (representing a subset of Service Oriented Architecture), Web 2.0 applications are outward-facing platforms that provide the *basis* for collaboration, sharing and conversation [Smith 2006]. Thus for example, a wiki enables multiple people to co-author a document in a very easy-to-use fashion, but by itself, it does nothing. Similarly, social networking sites, such as MySpace or Facebook, facilitate interpersonal connections but do not create them. A key characteristic of these applications is that they enable emergent structures and try not to impose preconceived ideas about how they should be used [McAfeeB 2006].
4. **Computing Behavior.** If there is one thing that everyone agrees on, it is that to take advantage of these new technical capabilities, our computing behavior will have to change. “I expect to see a big thematic change in the way people use technology,” states Erik Brynjolfsson, director of the MIT Center for Digital Business [Brynjolfsson and McAfee 2007]. Forrester Research Group concurs:

Some Web 2.0 Applications

- Wikis
- Blogs
- Virtual worlds
- 3D user interface/visualization
- Presence awareness
- Instant messaging
- Social networking communities
- Reputation systems
- Collective intelligence systems
- Authoring
- Really Simple Syndication (RSS) feeds
- Podcasts
- Massive multiplayer online role-playing games
- Mash-ups

Web 2.0 is about specific technologies... that are relatively easy to adopt and master. Social computing is about the new relationships and power structures that will result...Web 2.0 is the building of the interstate highway system in the 1950s; social computing is about everything that resulted next. [quoted in Hinchcliffe, 2006].

Focus group members have already noticed differences in the behavior of the “millennials” (i.e., those born after 1982) now beginning to arrive in the workplace. As one manager observed, “Millennials blend work and their personal lives more seamlessly. They find it frustrating to be slowed down by a corporate working environment. They want to work wherever and whenever they want.”

The promise of social computing is that technology will fit more naturally into our lives because it will adapt more readily to our locations, preferences, and schedules [Roush 2005]. The challenge for organizations is to understand how to use social computing effectively — separating hype from reality and using it to deliver business value through opening up traditional boundaries to the network and to new ways of working and sharing.

III. WHAT'S DRIVING SOCIAL COMPUTING IN ORGANIZATIONS?

It's easy for jaded IT managers to dismiss social computing as "just another technology fad." Most companies are approaching it very cautiously "because they have been fooled in the past by promises of collaboration tools" [Fontana 2007]. As Harvard Business School's McAfee notes, "There is a long history of deploying collaboration [technology] and having it gather dust." [Fontana 2007]. One focus group member cynically called it "the second coming of knowledge management (KM)." While social computing certainly shares some common themes with KM — collaboration, information sharing, social networking — there are some significant drivers of this new trend that differentiate it and which need to be understood by organizations before they make decisions about what to do with it.

There are a number of factors contributing to the "buzz" around social computing. Some are changes are happening now; others are only hints of changes to come:

- **Today's reality.** As noted earlier, three of the pieces that comprise social computing — cheap devices, anywhere/anytime connectivity, and Web 2.0 applications — are already here and spreading rapidly. Because of its viral nature and network effects (i.e., the more people who are connected, the more effective the result), social computing is leaking daily into organizations in a variety of forms, and is already causing huge headaches for IT managers [Fontana 2007]. "Managing social computing applications is like playing 'whack a mole,'" said an IT manager in the focus group, referring to the carnival game. "They just keep popping up; you can't kill them. It's a tidal wave."

These three components have already had and are continuing to make significant impacts in many industries. For example, trends toward globalization and outsourcing are driving new demands for collaboration in global, virtual teams; more complex sourcing connections; and a deeper appreciation for the value of doing business through a network of relationships [Friedman 2005].

Similarly, a mobile, customer-facing workforce supported by all the technology of a virtual office is increasingly a reality. This is leading to a need to redefine what work is and where it is done and forcing organizations to make information and applications available wherever they are needed. A natural result is an overlap or blurring of our work and personal worlds. Increasingly, work is done where it is needed: e-mail on the golf course; order entry from a car; or a business document prepared at the cottage are all features of life in the new invisible "information field" in which many people now spend their lives [Roush 2005].

Finally, there is mounting evidence that changes in computing behavior are having an impact on business. What started with the music industry through file sharing has fundamentally changed the entertainment industry, and the ripple effects of this are spreading as companies find ways to appropriate new forms of value through the network [e.g., Anderson 2006] and consumers find new ways to subvert traditional business models. Wikis and blogs are rewriting the rules of corporate communication [Mayfield 2008]. For example, 88 percent of the top 100 brands now have a Wikipedia entry; Wal-Mart now has paid bloggers; and online gaming is a \$55 billion industry [Mayfield 2008; Weill 2007; Smith and McKeen 2007]. And horror stories of the use of social networking tools making the world aware of product inadequacies haunt many companies [Knightsb 2006].

- **Tomorrow's potential.** What is still unclear is how new computing behaviors and the capabilities enabled by new technology will affect the nature of work and shape consumer behavior. The demand for social computing tools is already here, thanks to their ease of use, flexibility, low cost, and portability. "In many cases, these tools are better than our expensive and elaborate work platforms," said one manager. Another noted, "We just implemented a simple texting mechanism to schedule our teen-aged employees for work. It was junk technically, but it was very successful because it functioned the way they want to interact and not how we wanted them to communicate" (i.e., through corporate e-mail).

However, while companies with a youthful workforce and those with a retail presence may already see the possibilities of social computing, most are still watching developments from the sidelines [Raskino 2007]. "We see limited scope for social computing applications so far," said a focus group manager. "The business cases for these applications are extremely hard to make," another pointed out. While there is a growing recognition that social computing represents some sort of "next step" in computing [Brynjolfsson and McAfee 2007; Tapscott 2006], there is no real understanding of what this might mean for the majority of organizations.

There is documented interest in using social computing as a way to engage employees, customers, and suppliers, which may lead to new ways of innovating. IBM is strongly promoting its collaboration tools as an effective way to generate ideas from a wide variety of sources (see www.collaborationjam.com). Eli Lilly uses it

to solve problems by tapping into resource talent pools from around the world (see www.innocentive.com). Cambrian House uses social computing technologies to partially outsource both idea generation and product creation for new software products, while acting as middleman and coordinating activities [Brynjolfsson and McAfee 2007].

Finally, there is significant, though nascent, interest in the use of virtual worlds for business purposes. These worlds (e.g., Second Life), which are still far from having practical business uses, are attracting interest from companies as varied as Adidas, Sun Microsystems, Reuters and Toyota [Kharif 2006]. Potential uses for this technology include gaining early experience of products and services, creating effective distance learning environments, and making work more fun [Smith 2006; O'Driscoll 2007].

In short, while social computing is a reality — even in organizations today — we are still in the early stages of its evolution. As a result, it is a challenge for most companies to visualize its potential, let alone recognize its potential impact on how they will be doing business in the future.

IV. WHERE IS SOCIAL COMPUTING LEADING US?

Far more than in the past, we can see that today's technology innovations are engendering a set of complementary innovations in how we work and live [Brynjolfsson and McAfee 2007]. Convergence of technology so that data and applications can be seamlessly moved from device to device was the first step. Most managers now have at least some understanding about how this is making work and technology more portable and accessible, enabling virtual work, virtual teams, work at home, and mobile working. What the next changes will be are less obvious. Predictions rely on the experiences of smaller technology and media companies which have been the early adopters of social computing for business, extrapolation from what is going on with social computing and individuals, and of course, the ever-present media and vendor "hype."

Bearing these *caveats* in mind, there are several changes that we can realistically expect to see in organizations over the next two-to-five years. These will be more apparent in some firms than in others and will likely affect some aspects of work more than others [Young and Gomolski 2007]:

- **More Flexible Organization Behavior.** Most social computing applications share the following characteristics:
 - Participation through contribution and feedback
 - Openness in a variety of ways, such as voting, feedback, sharing information, and comments
 - Conversation
 - Community building by enabling those with a common interest to connect and communicate effectively [Mayfield 2008; Tapscott 2006].

As these behaviors become embedded in organizations, business cultures will increasingly adapt to the expectations of 360 feedback and sharing across hierarchical, business unit, and organization boundaries [Austin et al. 2006].

- **New Ways to Manage Digital Content.** There is no doubt that the amount of digital content available is growing geometrically in both sheer numbers and type [Smith and McKeen 2006]. Social computing applications offer new ways of searching, managing and effectively utilizing this deluge. For example, 3D visual interfaces enable users to comprehend up to 85 times more information than the 2D text base search systems (e.g., Google) in use at present [Smith and McKeen 2007]. A variety of social computing applications are designed for improved information management. RSS feeds, improved search tools, tagging; blogs, personal home pages, and virtual worlds are just some of the tools that will give information context and make it easier to find and use in the future [Bray and Konsynski 2007; Hinchcliffe 2006; Trebutt 2006].
- **New Styles of Management.** As noted above, some managerial change is already apparent in many working lives. The focus group noted that, while in the past organizations have forbidden the personal use of such technologies as telephones and the Internet, and now social computing, the trend is toward an environment where we are always available to both our work and personal lives. This will necessitate a change of management style and metrics. As one manager explained, "We need to focus more on people's outputs. We don't live in a clocking-in environment anymore. We should care about what people deliver and their accountabilities." This suggests that employers will have to trust their staff in situations where they are unsupervised and that employees will have to inculcate organizational values and expectations and be expected to apply them appropriately wherever they are [Trebutt 2006; Smith, McKeen and Street 2004]. The focus group also felt that more attention will also be paid to improving work/life balance.

- **Adaptive Organization Designs.** The effect of the above changes will mean a shift in how organizations function. While no one suggests that traditional command and control hierarchies will be completely eliminated, as organizations become more open and flexible, it will be natural that many traditional organizational boundaries will be broken down. There will also be less structure and greater agility in a variety of areas, including: the roles people play, which will tend to be situational, rather than fixed; flatter structures with fewer layers of control and more reliance on other forms of control (e.g., deliverables, accountabilities, ethics, and audits); and the breaking down of traditional internal boundaries between business units [Brynjolfsson and McAfee 2007; Raskino 2007; Smith and McKeen 2007b]. Similarly, focus group participants have seen a blurring of organizational boundaries as they do more collaborative projects with partners, suppliers, and clients. For some businesses, or some parts of businesses, this new openness will lead to new and continuously evolving business models and sources of value. Learning how to take advantage of the network for business value is still in its infancy but for those who can adapt to “business in the wild,” learn to use collective intelligence and bottom up innovation, and adopt new and less protective approaches to the management of intellectual property, social computing will be a great enabler [Young and Gomolski 2007].

It is likely that new organization designs will combine the best of traditional approaches to management and value generation with new control, accountability and decision-making mechanisms. For example, social computing tools will enable new and different types of decision-making trade-offs between local and centralized bodies. At Zara Clothes, local store managers now tell the company what items people want to wear and the company makes them [Brynjolfsson and McAfee 2007]. The U.S. military is using the same type of networked technology to ensure that relevant decisions are made by local personnel [Smith and Konsynski 2004]. Finally, organizations that want to combine innovation with technology will need to develop a macro-level innovation process that balances formal and informal structures to facilitate learning and information exchange while also ensuring projects and companies are successful [Rizova 2006].

Most of the focus group companies currently have no policies governing the acceptable use of social computing and simply deny their employees access to these tools — a trend corroborated by a recent survey [Lombardi 2008]. Also, policies are only the first step, as organizations will have to develop social governance and etiquette around how such tools are used (e.g., around gossip, “flaming,” what can and cannot be shared and so on.).

Forrester research suggests that, as a result of social computing, we can expect to see three powerful changes taking place in organizations:

- Innovation will move from a top-down to a bottom-up model.
- Value will move from ownership to experiences.
- Power will shift from institutions to communities [cited in Hinchcliffe 2006].

While the first shift is entirely likely, given the ability of social computing to tap into collective intelligence [Brynjolfsson and McAfee 2007], the second two shifts will probably be much longer in coming, if at all. What is more likely in the near term is that organizations will develop hybrid designs that will take advantage of both the industrial strength processes and structures created in the past two decades and newer, more flexible forms of organizational action. While radical change will remain an option for some, the focus group agreed with many researchers that it is much more likely that social computing will first be used in more targeted ways that complement, more than they disrupt, tried and true organization designs [Young and Gomolski 2007; Brynjolfsson and McAfee 2007].

V. PULLING IN TWO DIFFERENT DIRECTIONS: THE CHALLENGE FOR IT MANAGERS

As is so often the case with new technologies, IT managers feel torn between their everyday reality and the glamorous and dynamic vision of the future, as painted by the proponents of social computing. Participants were not so much skeptical of the capabilities of social computing technologies as concerned for how these would mesh with their everyday responsibilities of managing an efficient and effective IT organization. “Social computing is a challenge in our locked down environment,” said one. Another noted, “Our information security principles conflict with social computing. There are some things we don’t want hitting the 6 o’clock news.” Table 1 summarizes the vision of social computing and contrasts it with the challenges it poses to IT management.

Social computing is often seen as “dangerous but seductive” [Trebutt 2006], and the focus group managers agreed. “We’re being pulled in two directions. We need to change,” said one, “but we also need to protect our corporate assets. We really need to be developing policies for how to do this.” They saw their biggest challenge as security and protecting the reliability of the infrastructure they have built up. “If the security issue was addressed, we’d see social computing as much more acceptable,” said another manager.



Table 1. The Challenge of Social Computing from an IT Manager's Perspective

The Vision	The IT Manager's Challenge
Blurred boundaries	Firewalls
Collaboration & sharing	Intellectual property & privacy protection
Situational applications	Maintaining transactional applications & operational integrity
Mass participation & accessibility	Authentication & authorization
Transient information	Creating a permanent record
Supports social behavior	Supports business behavior
Innovation & creativity	Efficient use of resources
Viral	Secure
Dynamic	Backup
Situational roles	Regulatory accountabilities
Social governance & etiquette	Organizational governance & policy
Collective intelligence; bottom up innovation	Top down business strategy
Emergent value	Defined business value based on a business case
Anywhere, anytime connectivity	Controlled communication
Ad hoc applications	Scalable applications

Some of their other challenges include:

- Short business horizons.** As has often been the case in the past, business leaders have a much shorter time horizon in their thinking than IT managers and they are often not prepared to anticipate or explore new technologies and their implications. *Then*, when the technology hits public awareness, they want it *yesterday!* “We have no active support for social computing,” said one manager. “It’s very hard for the business to see its value as yet.” Yet, in some cases, business users see IT as holding them back because of security and regulatory considerations. “We need to work together with the business to identify the risks associated with social computing and protect our operational processes,” said another. “And we need to make sure the decision-makers understand what’s involved in becoming more open.”
- Resources.** Social computing is touted as an effective collaboration and innovation tool, but using it for this purpose requires support and facilitation. “Our staff is maxed out at present,” said a manager. “If we go down this road, we need to commit resources to doing it properly.” Even in those companies that are actively promoting social computing applications, this is a challenge. “When we’re stressed, we revert to our old behaviors,” explained a participant.
- Changing the culture.** IT managers recognize that organizational behavior must change if the value of social computing is to be realized. However, changing embedded cultural practices is often extremely difficult. Even where there is a strong emphasis on making information and people more accessible, social computing needs a champion to make sure “we don’t slip back into our comfortable ways of behaving,” agreed the focus group. Some organizations have tried wikis and blogs but have found that while the adoption rate is initially high, the drop off in participation is equally steep. This is consistent with the challenges KM managers faced, which effectively killed this function in most organizations. The question for many (and which remains unanswered) is whether new social computing tools (or “KM lite”) will be able to drive the behavioral and cultural changes needed to make the technology effective [Spanbauer 2006].

VI. PREPARING FOR THE FUTURE

Although most large organizations are not yet ready to embrace social computing, Gartner Group expects they will soon start to exploit the principles on which it is based by adapting them to a corporate context [Raskino 2007]. And already key vendors have plans to offer corporate grade social computing tools to the market [Raskino 2007]. As a result, organizations can expect to see the hype growing and IT departments can expect to see their role as protector of the corporate IT asset challenged [Trebutt 2006]. Also, as might be anticipated, there will be a range of appropriate responses from “we should have nothing to do with this technology” to fully embracing it [Young and Gomolski 2007].

Literally no one is claiming to understand how social computing will change organizations. “The fallout is not yet clear,” says Forrester Research [cited in Hinchcliffe 2006]. “There are no best practices as yet,” stated another researcher [Konsynski 2007]. “The biggest challenge is to make [these] tools useful for business,” explained a third

researcher [Knights 2006]. Nevertheless, the focus group agreed that this is a phenomenon that is not going away and with which companies must come to terms. Thus, most were taking one or more steps to prepare for what social computing might mean for their organizations. Some of these include:

- **Experimentation.** Several companies in the focus group had small scale social computing experiments ongoing in order to gain experience and better understand their implications. These ranged from internal wikis and blogs, to a corporate presence in Second Life, to support for instant messaging. Probably the most widely known strategic experiments are IBM's innovation jams. The first, limited to its 50,000 employees over a 72-hour period, created a massive blogging environment and used a combination of software and facilitation to develop a new set of corporate values. "The results were very well-received by staff," said a company executive, "because they are truly meaningful to them." This success led to two larger jams, expanded to include IBM's partners, customers and suppliers. Again, the results were impressive, according to the executive. "We were shocked at the innovative outcomes. There was a real sense of the power of collaboration" [Smith and McKeen 2007a].
- **Practice evolution.** As noted previously, very few companies have developed any policies around how and where social computing should be used, with the exception of forbidding it completely [Lombardi 2008]. Many focus group managers felt that one goal of social computing experiments should be to help evolve practices and eventually corporate policies for its use. "We need to do this on a case-by-case basis," said a manager. "This is the only way we'll figure out how we need to manage it effectively. However, we have to build a box around these applications so that we can protect our other assets." Several firms had already established codes of conduct for Internet usage and felt that these could be adapted to social computing. Adherence to good privacy and security practices were also felt to be foundational components for successful social computing.
- **Vision.** Most of all, it is important to work toward a common vision for social computing in a particular organization. Some of the factors that will affect this vision include: the demographics of the workforce and the company's customers; geographic location and mobility of the workforce, company partners, suppliers and customers; the degree to which the industry is regulated; the importance of creativity and innovation in the business; the organization's capability for change; and management's willingness to champion, resource and support new ways of working [Brynjolfsson and McAfee 2007; Raskino 2007; Knights 2006; Bradley 2007]. "To understand how social computing will deliver value, we need to help people do what makes sense for them, without being prescriptive," said a participant. A key component of the vision for social computing will be the role IT will play. Will it simply provide a secure computing platform, tools, backups, and hardware and then get out of the way [Trebutt 2006]? Or will the organization expect social computing to be integrated into its current processes and applications in a more thoughtful way [Spanbauer 2006]? Or will social computing simply be just another set of tools in IT's kit [Brynjolfsson and McAfee 2007]? Each of these approaches will have "regenerative, innovative and destructive potential for today's IT" [Young and Gomolski 2007]. A focus group manager pointed out that this is a normal position for IT to be in. "IT is constantly changing. Most IT jobs in our organizations didn't exist a decade ago," he stated. "Right now, we need to get a better handle on how social computing will change IT and what skills and capabilities we will need to support it, and this requires some thoughtful visioning."

The three key questions companies are asking about social computing are: What is the value of these tools? How can we pick the right ones? What is the management playbook for using them effectively? [Fontana 2007] At present, there are no right answers, so organizations are going to have to find out for themselves through experimentation, practice and visioning.

VII. CONCLUSION

Social computing may be "inevitable," according to the focus group but its use in organizations and its impact on how they use technology to deliver value is still far from clear. The predominant sentiment is probably one of "watchful confusion" as both business and IT managers try to grasp how to adopt and utilize technologies that continue to mutate rapidly and are integral to how a growing segment of our society wants to live and work. Social computing is definitely a powerful set of technologies, tools, and behaviors, but whether or not that power will eventually be perceived as a "good" thing is yet to be seen. What we *do* know is that, more than ever before, the impact of social computing will result from the deep and close connections that are created by the interaction of humans and technology. It would therefore behoove IT managers and other leaders to expand their horizons to include a greater understanding of social psychology. IT managers have been saying for some time now that "it is people, not technology that are our biggest challenge." Yet, somehow technology is always preeminent. Maybe the advent of social computing will be the catalyst of a more person-centric approach to technology, one where technology use will eventually become "like wearing eyeglasses; the rims are always visible but the wearer forgets she has them on — even though they're the only things making the world clear." [Roush 2005].

REFERENCES

EDITOR'S NOTE: The following reference list contains the address of World Wide Web pages. Readers, who have the ability to access the Web directly from their computer or are reading the paper on the Web, can gain direct access to these references. Readers are warned, however, that:

1. These links existed as of the date of publication but are not guaranteed to be working thereafter.
2. The contents of Web pages may change over time. Where version information is provided in the References, different versions may not contain the information or the conclusions referenced.
3. The authors of the Web pages, not CAIS, are responsible for the accuracy of their content.
4. The author of this article, not CAIS, is responsible for the accuracy of the URL and version information.

Anderson, C. (2006). *The Long Tail*, New York: Hyperion.

Austin, T., D. Cearley, J. Mann, G. Phifer, D. Sholler, K. Harris, T. Bell, R. Knox, M. Cain, and M. Silver. (2006). "Predicts 2007: Big Changes Ahead in the High Performance Workplace," *Gartner Research* #G00144476, December 5.

Bradley, A. (2007). "Key Issues in the Enterprise Application of Web 2.0 Practices, Technologies, Products and Services 2007," *Gartner Research* #G00148544, June 14.

Bray, D. and B. Konsynski. (unpublished). "Virtual Worlds: Multidisciplinary Research Opportunities," paper available from david_bray@bus.emory.edu.

Brown, J. and P. Duguid. (2000). *The Social Life of Information*, Harvard Business School Press, Boston.

Brynjolfsson, E. and A. McAfee. (2007). "Beyond Enterprise 2.0," *MIT Sloan Management Review*, Vol. 48, No. 3, Spring, pp. 50-64.

Fontana, J. (2007). "Social Networks Find Corporate Friends," *Network World*, Vol. 24, Non. 44, November 12, p. 22.

Friedman, T. (2005). *The World is Flat: a Brief History of the 21st Century*, New York: Farr, Straus and Giroux.

Hinchcliffe, D. (2008). "The Shift to Social Computing," *Enterprise Web 2.0*, <http://blogs.zdnet.com/Hinchcliffe/wo-trackback.php?p=21>, March 12, 2006, downloaded January 8.

Kharif, O. (2008). "Big Media Gets a Second Life," *BusinessWeek.com*, October 17, http://www.businessweek.com/technology/content/oct2006/tc20061017_127435.htm, downloaded January 28.

Knights, M. (2006). "Harness the Power of Collaboration," *Computer Weekly*, August 15, pp. 22-24.

Konsynski, B. (2007). "Business and Virtual Worlds," unpublished presentation to the Society for Information Management's Advanced Practices Council, Chicago, September.

Lombardi, R. (2008). "Web 2.0: Here and Now," *CIO Government Review*, Vol. 10, No. 1, January, pp. 12-16.

Mayfield, A. (2008). "A Bluffers Guide to Social Media," *www.spannerworks.com*, 2008, downloaded January 8.

McAfee, A. (2006). "Enterprise 2.0: The Dawn of Emergent Collaboration," *MIT Sloan Management Review*, Vol 47, No. 3, Spring, pp. 20-28.

O'Driscoll, T. (2006). "Serious Gaming," unpublished presentation to the Society for Information Management's Advanced Practices Council, Chicago.

Raskino, M. (2007). "In 2008, Enterprise Web 2.0 Goes Mainstream," *Gartner Research* #G00153218, December 17.

Rizova, P. (2006). "Are You Networked for Successful Innovation?" *MIT Sloan Management Review*, vol. 47, No. 3, Spring, pp.49-55.

Roush, W. (2005). "Social Machines: Computing Means Connecting," *MIT Technology Review*, August.

Smith, D. (2006). "Advanced Web Services Lead to the Next Generation of Enterprise-Class Computing," *Gartner Research* #G00144830, November 28.

Smith, H., J. McKeen, and C. Street. (2004). "Linking IT to Business Metrics," *Journal of Information Science and Technology*.

Smith H. and J. McKeen. (2006). "Developments in Practice XXIV: Information Management—the Nexus of Business and IT," *CAIS*, Vol. 18, No. 33, December.

- Smith, H. and J. McKeen. (2007a). "Serious Gaming," *The CIO Brief*, Vol. 13, No. 4, Queen's University School of Business, Kingston, ON K7L 3N6.
- Smith, H. and J. McKeen. (2007b). "Social Networks: KM's "Killer App?" *Communications of the Association of Information Systems*, Volume 19 of CAIS as Article 27.
- Smith, H. and B. Konsynski. (2004). "Grid Computing," *MIT-Sloan Management Review*, Vol. 46, No. 1.
- Spanbauer, S. (2006). "Knowledge Management 2.0," *CIO*, Vol. 20, No. 5, December 1.
- Tapscott, D. and A. Williams. (2006). *Wikinomics: How Mass Collaboration Changes Everything*, London: Penguin Books.
- Trebutt, D. (2006). "The IT Manager's Guide to Social Computing," *The Register*, July 21, <http://www.the-register.co.uk/2006/07/21>, downloaded January 8.
- Weill, N. (2007). "How Wal-Mart Lost its IT Mojo," *CIO*, Vol. 21, No. 3, November 1.
- Wikipedia. (2008). "Social Computing," http://en.wikipedia.org/wiki/social_computing, downloaded January 8, 2008.
- Young, C. and B. Gomolski. (2007). "Alternative Delivery Models: Implications for the IT Organization," *Gartner Research #G00152131*, October 3.

ABOUT THE AUTHORS

Heather A. Smith (hsmith@business.queensu.ca) has been named North America's most published researcher on IT and knowledge management issues. A senior research associate with Queen's University School of Business at Kingston, Canada, she is the co-author of four books: *IT Strategy in Action*; *Management Challenges in IS: Successful Strategies and Appropriate Action*; *Making IT Happen: Critical Issues in IT Management*; and *Information Technology and Organizational Transformation: Solving the Management Puzzle*. A former senior IT manager, she is currently co-director of the IT Management Forum and the CIO Brief, which facilitate interorganizational learning among senior IT executives. She is also a senior research associate with the Society for Information Management's Advanced Practices Council. In addition, she consults, presents, and collaborates with organizations worldwide, including British Petroleum, TD Bank, Canada Post, Ecole des Hautes Etudes Commerciales, the OPP, and Boston University. Her research is published in a variety of journals and books including *MIT Sloan Management Review*, *Communications of the Association of Information Systems*, *Knowledge Management Research and Practice*, *Journal of Information Systems and Technology*, *Journal of Information Technology Management*, *Information and Management*, *Database*, *CIO Canada*, and the *CIO Governments Review*. She is also a member of the editorial board of MISQ-E.

James D. McKeen is a professor of IT Strategy and Distinguished Faculty Fellow in MIS at the School of Business, Queen's University at Kingston, Canada. Jim received his Ph.D. in Business Administration from the University of Minnesota. He has been working in the IT field for many years as a practitioner, researcher, and consultant and is a frequent speaker at business and academic conferences. Dr. McKeen co-facilitates the networking of senior executives in the IT sector through two well-known industry forums: the IT Management Forum and the CIO Brief. He also has extensive international experience, having taught at universities in the U.K., France, Germany, and the U.S. His research has been widely published in various journals including the *MIS Quarterly*, *Knowledge Management Research and Practice*, the *Journal of Information Technology Management*, the *Communications of the Association of Information Systems*, *MIS Quarterly Executive*, the *Journal of Systems and Software*, the *International Journal of Management Reviews*, *Information and Management*, *Communications of the ACM*, *Computers and Education*, *OMEGA*, *Canadian Journal of Administrative Sciences*, *Journal of MIS*, *KM Review*, *Journal of Information Science and Technology* and *Database*. Jim is a co-author of three books on IT management with Heather Smith, the most recent being *IT Strategy in Action* (Pearson Prentice Hall, 2008). He currently serves on a number of editorial boards.

Copyright © 2008 by the Association for Information Systems. Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and full citation on the first page. Copyright for components of this work owned by others than the Association for Information Systems must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers, or to redistribute to lists requires prior specific permission and/or fee. Request permission to publish from: AIS Administrative Office, P.O. Box 2712 Atlanta, GA, 30301-2712 Attn: Reprints or via e-mail from ais@aisnet.org



EDITOR-IN-CHIEF
 Joey F. George
 Florida State University

AIS SENIOR EDITORIAL BOARD

Guy Fitzgerald Vice President Publications Brunel University	Joey F. George Editor, CAIS Florida State University	Kalle Lyytinen Editor, JAIS Case Western Reserve University
Edward A. Stohr Editor-at-Large Stevens Inst. of Technology	Blake Ives Editor, Electronic Publications University of Houston	Paul Gray Founding Editor, CAIS Claremont Graduate University

CAIS ADVISORY BOARD

Gordon Davis University of Minnesota	Ken Kraemer Univ. of Calif. at Irvine	M. Lynne Markus Bentley College	Richard Mason Southern Methodist Univ.
Jay Nunamaker University of Arizona	Henk Sol University of Groningen	Ralph Sprague University of Hawaii	Hugh J. Watson University of Georgia

CAIS SENIOR EDITORS

Steve Alter U. of San Francisco	Jane Fedorowicz Bentley College	Jerry Luftman Stevens Inst. of Tech.
------------------------------------	------------------------------------	---

CAIS EDITORIAL BOARD

Michel Avital Univ of Amsterdam	Dinesh Batra Florida International U.	Ashley Bush Florida State Univ.	Erran Carmel American University
Fred Davis Uof Arkansas, Fayetteville	Gurpreet Dhillon Virginia Commonwealth U	Evan Duggan Univ of the West Indies	Ali Farhoomand University of Hong Kong
Robert L. Glass Computing Trends	Sy Goodman Ga. Inst. of Technology	Mary Granger George Washington U.	Ake Gronlund University of Umea
Ruth Guthrie California State Univ.	Juhani Iivari Univ. of Oulu	K.D. Joshi Washington St Univ.	Chuck Kacmar University of Alabama
Michel Kalika U. of Paris Dauphine	Claudia Loebbecke University of Cologne	Paul Benjamin Lowry Brigham Young Univ.	Sal March Vanderbilt University
Don McCubbrey University of Denver	Fred Niederman St. Louis University	Shan Ling Pan Natl. U. of Singapore	Kelly Rainer Auburn University
Paul Tallon Loyola College in Maryland	Thompson Teo Natl. U. of Singapore	Craig Tyran W Washington Univ.	Chelley Vician Michigan Tech Univ.
Rolf Wigand U. Arkansas, Little Rock	Vance Wilson University of Toledo	Peter Wolcott U. of Nebraska-Omaha	

DEPARTMENTS

Global Diffusion of the Internet. Editors: Peter Wolcott and Sy Goodman	Information Technology and Systems. Editors: Sal March and Dinesh Batra
Papers in French Editor: Michel Kalika	Information Systems and Healthcare Editor: Vance Wilson

ADMINISTRATIVE PERSONNEL

James P. Tinsley AIS Executive Director	Robert Hooker CAIS Managing Editor Florida State Univ.	Copyediting by Carlisle Publishing Services
--	--	--

