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**Tapping into collective intelligence:
how to leverage the wisdom of the
crowd to boost the bottom line.**

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Introduction

In the age of Web 2.0, Internet users are rewriting the rules of social interaction by harnessing a range of new technologies to create and sustain virtual communities forged around common interests. Communications channels such as blogs and online forums, amplified by collaborative technologies like social bookmarking, provide powerful tools for sharing information and sustaining relationships across geographic borders and industry silos. Often referred to as collective intelligence or the wisdom of the crowd, the reservoir of knowledge created by these confederations of self-designated experts and volunteers can often exceed the sum of the parts.

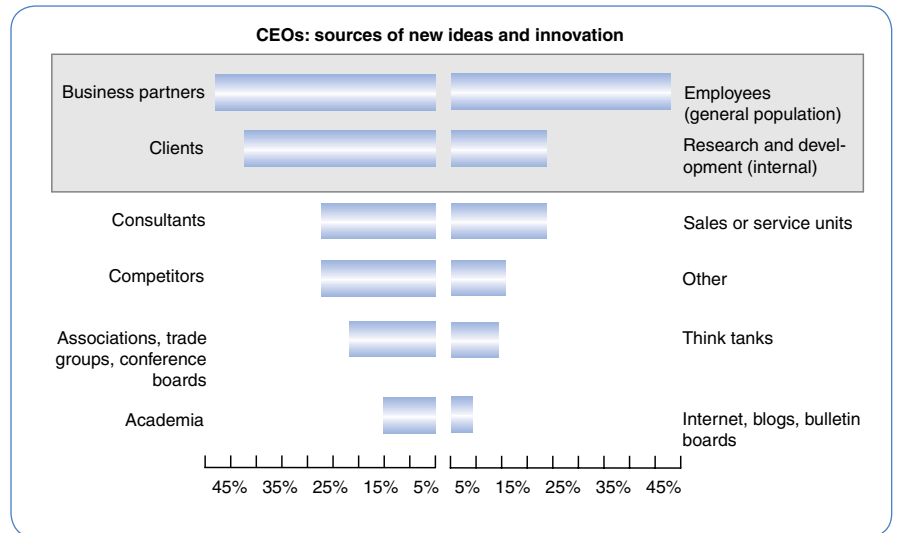
It is the power inherent in this collective intelligence that is causing the corporate world to sit up and take notice. In today's global market environment, it is increasingly difficult to differentiate products via conventional benchmarks like price or even quality. One key to gaining a competitive advantage is being the first to market. This often requires rethinking the enterprise from the ground up, from technologies to processes to people. As part of this business transformation, business leaders are now focused on the human component in their efforts to foster innovation and growth. To truly stand out from the crowd, they are discovering they must harness the power of corporate knowledge. By collecting, maintaining and sharing the discrete bits of knowledge scattered throughout departments and organizational niches, companies can better leverage this collective intelligence within the enterprise.

Social software can be instrumental in achieving this goal. A recent research paper by Gartner concluded, "Enterprise social software will be the biggest new workplace technology success story of this decade. Thirty percent of enterprises will openly sponsor internal...social sharing spaces to help employees find others with similar interest, skills, backgrounds and experiences."²¹

Highlights

Driving innovation through collaboration

In a 2006 study, more than 700 CEOs worldwide told IBM that finding new areas of growth, new products and services, and engineering new in-house processes and business models were ranked as top strategies for staying competitive.² When asked where the ideas that could lead to such innovation would come from, CEO identified employees, partners and clients as the top three groups.



Source: IBM Institute for Business Value, The Global CEO Study 2006, March 2006.

The ability to collaborate is a key competitive factor that separates out-performers from under-performers in terms of their ability to innovate.

In the same study, the ability to collaborate was identified as a key competitive factor that separates out-performers from under-performers in terms of their ability to innovate.

Regardless of the type of innovation undertaken, over 75 percent of CEOs indicated that collaboration is very important to innovation. One CEO described its importance on a scale of one to five as "enormous. I'd give this a six if I could."

Highlights

Business leaders today are looking for ways to create a culture where collaboration is a fundamental part of the corporate structure.

Social software tools can help people locate and link up with an extended network of subject matter experts.

But when it comes to assessing the current situation, CEOs experienced disappointment in fostering a collaborative workplace.

Although collaborative aspirations were high, actual implementation was dramatically lower. Only half of the CEOs we spoke with believed their organizations were collaborating beyond a moderate level.

Business leaders today are looking for ways to create a culture where collaboration across corporate boundaries is a fundamental part of the corporate structure. They recognize the need to create a collegial environment within the organization where teaming efforts are valued. Additionally, business leaders know that innovative ideas can also germinate through collaborative relationships with customers and business partners.

As senior executives, CIOs have an important role to play in helping make collaboration an integral part of the company's business strategy and in enabling collaboration for both people and systems. Emerging collaborative technologies can enable companies to bring skill and scale together at unprecedented levels. CIOs can lead the implementation of these collaborative technologies, both within the IT organization and across the enterprise, working with business leaders to remove organizational inhibitors to collaboration.

Social software: taking collaboration to the next level

While traditional collaborative software has facilitated group projects and teamwork for many years, the new generation of social networking tools can amplify these existing capabilities significantly. Knowledge workers are finding business value in discovering and drawing upon relationships beyond their immediate teams. Social software tools can help people locate and link up with an extended network of subject matter experts—providing a fresh, innovative approach toward solving problems and meeting new challenges in the marketplace.

Highlights

What is social software?

Social software consists of collaborative tools that are used to build and maintain personal and professional networks. These tools, built using Web 2.0 design principles, enable participants to actively share knowledge and build relationships across their network. In this way, social software can make broadly visible information and relationships previously hidden or tacit within an organization.

Robert Reich, former secretary of labor and now a professor at University of California Berkeley, was recently asked where he sees information technology (IT) most improving productivity in the next three years. “Mostly in the area that I call ‘relational capital’: the relationships inside a company between managers, executives, engineers and people who have certain specialized domains of knowledge,” Reich said.

“Relational capital is one of the most important and yet most neglected areas of capital formation. Companies need to utilize IT so that everyone in an organization can take maximum advantage of everybody else. It used to be called knowledge management. It’s more complicated than that, as we’ve all discovered. But because all other entry barriers are dropping so fast, we need IT systems that rapidly connect the right people to each other so that there are real synergies.”³ To build the IT systems that can tap into this relational capital and increase the visibility of relevant tacit knowledge held in pockets across the enterprise, innovative CIOs are stepping outside of their comfort zones to embrace new collaborative tools that are moving into the mainstream.

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Highlights

In a business environment, blogs can help foster a culture of sharing expertise and knowledge rather than hoarding.

Collaborative project tools are another important component of social software solutions.

Internal IT systems that provide blogging capability, for instance, support a one-to-many type of communication that allows an individual to “push” ideas in a nondisruptive way to a broad audience. Blog (short for weblog) software makes it easy for individuals or groups to self-publish journal-style Web pages where entries are displayed in reverse chronological order and can include text, images, links to other Web pages and the like. In a business environment, blogs can help foster a culture of sharing expertise and knowledge rather than hoarding, while rewarding an individual with better visibility and potential recognition for contributions to the business beyond an immediate workgroup.

In contrast, a “pull” example demonstrating the power of community knowledge sharing is social bookmarking. Pioneered by sites such as del.icio.us, social bookmarking tools allow users to tag, store and share links to their favorite online content in an online service (rather than within a specific browser application). Users select their own descriptors, called tags, to label material so it’s easy to find again and share with others. In the workplace, this categorization by tagging enables a colleague to search on these tags, locate experts and “look over their shoulders” at the industry articles, research or blogs those experts found useful – without interrupting them with an e-mail or instant message.

Collaborative project tools are another important component of social software solutions for the enterprise. Once people find others with a required expertise or skill, they often want to form a team with fluid and open membership to accomplish a task or meet a goal related to a particular business initiative. For

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Knowledge workers find themselves performing the role of information aggregator, having to remember where specific documents and correspondence are stored.

Elements of social software are already finding their way into a growing number of companies.

example, a team of experts might use a wiki to coauthor product documentation or strategy papers. Characterized by speed, simplicity and ease of use, a wiki is a collaboration tool that allows anyone to create, edit, remove, add or change content using a Web browser.

Activity-centric computing represents a powerful type of execution-focused social software. Individual and team tasks today typically span several types of communications tools, document formats and desktop applications, including e-mails, faxes, instant message chats, spreadsheets and presentations. This means knowledge workers find themselves performing the role of information aggregator, having to remember where specific documents and correspondence are stored. Research in workplace collaboration at IBM has shown that people need simple tools to structure work that spans these different document formats. Activity-centric social software provides a way to organize and link to the different types of documents or communications collected over the course of a project. The integration of these capabilities in existing office productivity or messaging tools, using toolbar widgets or applets, can help make organizing and sharing these items even less disruptive by allowing the end user to add the document to a project without leaving the desktop application.⁴

Putting social software to work

Elements of social software are already finding their way into a growing number of companies. Human resource departments have found that providing these tools is necessary to attract young and Internet-savvy talent that has come to count on social networking to maintain personal and professional relationships. As technology market research firm IDC related to *Business Week* magazine, social computing software is “moving to the center fast because it’s about how

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the next generation of employees communicate, and create and share ideas.”⁵ But across the organization, regardless of employee demographics, these tools are being used to uncover and tap into individual workers’ expertise and make collective intelligence more visible.

One early adopter of social software is a global professional services company that in recent years has expanded and now operates across 80 countries. Having implemented an integrated suite of social software components, the firm is using them to help identify in-house expertise and more quickly assemble the best-qualified teams to address consulting opportunities. Blogs and social bookmarking capabilities assist their analysts in locating information and the professionals who are researching and writing about a particular industry. Links from shared bookmark lists or from blog entries lead to more detailed business information about that individual, such as contact and position information, work location, and areas of expertise. By including such dynamic professional information as blog entries and shared bookmarks, the system provides a perpetually updated resumé of sorts, enabling managers and others to keep abreast of employees’ latest client engagements and evolving expertise and specialties.

Externally deployed, social software offers new ways to ramp up customer relationship management efforts.

Externally deployed, social software offers new ways to ramp up customer relationship management efforts, providing a platform for viral marketing and brand awareness. In one example, a United States automobile manufacturer maintains a blog where executives write regular entries, reaching out to their customer base, putting a human face on their corporate persona and reinforcing brand loyalty.

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“Product Development 2.0” is an informal term for using social software channels to solicit customers’ opinions in making key product decisions.

Despite the tremendous promise of social software applications, CIOs often face several obstacles to the adoption of these new forms of collaboration.

Extranet applications can also facilitate solution development across business ecosystems. “Product Development 2.0” is an informal term for leveraging mass user contributions by providing social software channels to solicit customers’ opinions in making key product decisions. This approach can help a company give customers what they want more quickly. Organizations that figure out how to apply this fundamental shift in business models can potentially gain a significant advantage over their more staid competition.

One early adopter is a telecommunications company that wanted to incorporate strategic partners and customers into its research and development processes and accelerate the pace of product development. Studying this same challenge in its technology labs, IBM and the telecom provider collaborated in using social networking technologies to overcome barriers to innovation. The resulting solution employs blogs, wikis, social tagging, surveys and polls. Now the company can post ideas for new products – along with supporting documentation – and quickly assemble communities of individuals who have relevant interests and expertise. These groups, drawn from within and outside of the company, provide feedback that helps accelerate product refinement. With this new model of product development, the company is working toward increasing its offerings from dozens to hundreds, and reducing go-to-market time from years to months.⁶

Overcoming obstacles to adoption

Despite the tremendous promise of social software applications, CIOs often face several obstacles to the adoption of these new forms of collaboration. Some hesitation echoes corporate experiences with now well-established collaboration tools. For example, instant messaging was watched cautiously but not adopted by corporate IT departments for reasons related to security

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CIOs must be confident that intellectual capital is protected and that critical internal collaborative information can be easily searched.

The demographics of the workforce today also present an obstacle to widespread adoption.

and perceived lack of business value. But there exists a tipping point for some technologies where the business value eventually outweighs the risks. Robert Reich puts it this way: “Creativity, new insights about emerging problems and solutions, is more important than security because that is where the value is generated.”⁷⁷ In the case of instant messaging, it took recognizing that the potential for increased productivity can outweigh the risks of improper use or the costs of regulatory compliance.

At the same time, to be adopted by businesses, these new social software solutions must be truly ready for corporate deployment – which means meeting enterprise requirements in areas such as scalability, security and ease of administration. CIOs must be confident that intellectual capital is protected and that critical internal collaborative information can be easily searched, archived and restored according to data recovery and regulatory requirements. The software must also be scalable and based on open standards so it can integrate with the existing corporate IT infrastructure and tools like office collaborative and productivity suites. For the IT organization, Web 2.0 collaboration tools delivered as an integrated software suite can go a long way toward addressing concerns about ease of administration.

The demographics of the workforce today also present an obstacle to widespread adoption. Many IT leaders are concerned that employees, particularly older employees, will not easily adapt to using social software to share their intellectual capital. Careful deployment planning with broad stakeholder representation can go a long way toward ameliorating some of the perceived risks in rolling out a social software platform as part of a corporation’s collaborative IT plan. Governance models that incorporate both executive champions and

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Usage spreads virally across the organization, attracting participants as opposed to mandating participation.

end-user representatives from across the company can foster broader adoption and active participation. Establishing clear usage policies covering participants' professional and corporate responsibilities in community participation also helps to promote a valuable sharing and vetting of ideas.

Successful corporate deployments have shown that small informal rollouts of social software tools among an audience that has adopted new technologies quickly in the past can create an initial critical mass of relevant information in the system. This draws in others who find a valuable piece of information and decide to contribute in kind. In this way, usage spreads virally across the organization, attracting participants as opposed to mandating participation. This adoption pattern has been evident at IBM where, for instance, the practice of internal blogging has shown rapid growth. IBM's BlogCentral now hosts more than 30,000 registered users and 31,000 weblogs—of which more than 4,000 are active—with more than 74,000 entries and 71,000 comments.

Active participation of employees in the form of regularly posting blogs or consistently sharing bookmarks can also be just the tip of the iceberg in demonstrating the business value of these tools. At IBM today, only one percent of the population is participating in social bookmarking. However, virtually every IBM intranet user can potentially benefit because bookmarked pages are included in all intranet search results. These 240,000-plus shared bookmarks, saved and tagged with end user-entered keywords, often prove to be a better match than the search engine results found by simply crawling the page metadata and content.

Highlights

It is important to start with an internal intranet deployment before creating an extranet site accessible by strategic partners and customers.

Getting started with social computing

When considering how to begin supporting online communities with social software, it is important to start with an internal intranet deployment before creating an extranet site accessible by strategic partners and customers. This will provide employees with the chance to use the software and develop the discipline necessary to maintain the momentum. Participating in these communities requires a shift in the daily work patterns of consistent participants. For example, participants should consider setting aside regularly scheduled time in their calendars to add to a blog. Likewise, the organizational culture needs to endorse this investment of employee time. But the payoff in being able to easily access valuable information will provide a return on this time and energy investment many times over as individuals, teams and the organization overall execute more quickly and more effectively.

Can your business profit from social software?

Start by asking yourself if your organization faces any of these challenges:

- *Do you need a more efficient, yet informal way for small groups and teams within your organization and supply chain to collaborate and problem solve (outside of e-mail)?*
- *Do you spend too much time trying to track down the current experts on certain topics within your organization?*
- *Do you want to do more to promote creativity and the sharing of knowledge and key information resources within your organization?*
- *Do you have a sense for the critical pockets of knowledge and expertise within your organization?*

- *Is there much opportunity for people to communicate and connect across organizational boundaries, such as departments or locations, to solve problems in an interdisciplinary way?*
- *Are you worried about losing critical expertise and tacit knowledge as key staff retires or move on to other opportunities?*
- *Are you looking for way to attract and retain younger talent?*

Next steps

If you answered “yes” to any of the above questions, here are some ways that you can get started exploring how social software can help address productivity challenges.

Looking internally:

- *Find fertile ground for a social software pilot.*
- *Search for departments or small teams that might be using social networking software already, perhaps through a hosted service model.*
- *Locate potential early adoption groups within the organization that would be visible and credible champions to drive viral adoption in an organization-wide rollout.*
- *Identify collaborative projects that are unstructured and don't have existing work plans or workflows established.*

Looking externally:

- *Scan the Internet for examples of corporations with external blogs and investigate how they are using them to communicate with customers.*

Highlights

A key factor in fostering innovation is creating a culture and associated infrastructure to support collaboration across organizational boundaries. CIOs can take a leadership role in making this happen.

- *Locate a recognized industry expert in one of your areas of interest who has an active blog. Does she or he also have a set of social bookmarks at a site such as de.lici.ous? Could these blogs and bookmarks be valuable to you in your professional development? Could they be valuable to a larger team working on a related project?*
- *Investigate the policies and guidelines other companies have put in place on the appropriate use of their social software applications.*
- *Check in with industry analysts and researchers on how business is using and will use social software in the future.*
- *Investigate available product offerings, such as IBM Lotus® Connections software.*

Conclusion

Executive leadership today is looking to business innovation for new avenues of growth. One of the key factors in fostering innovation within an organization is creating a culture and associated infrastructure to support collaboration and knowledge sharing across organizational boundaries. CIOs can take a leadership role in making this happen. Paving the way are new collaborative software components designed to support one-to-many communication patterns as well as many-to-many virtual communities organized around key business topics. To meet business requirements, social software must integrate with existing tools such as corporate directories, messaging software and portals. By building a more community-based collaborative infrastructure for today's knowledge worker, IT and business leaders will help foster more sharing of knowledge and best practices and will encourage the innovation necessary to gain a competitive edge for tomorrow.

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For more information

IBM can help companies of all sizes explore the alternatives and realize the collaboration solution that is right for the organization's goals and needs. IBM offers a comprehensive set of services and software to help our clients plan and deploy internal and external online social networks and communities. To learn more about IBM social software services and solutions contact your IBM sales representative or visit:

ibm.com/cio/empower

ibm.com/lotus/connections



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