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## Hype Cycle for Social Software, 2008

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The Social Software Hype Cycle highlights the most important technologies that support rich social interactions. Use our assessment of their business relevance and maturity to guide your investment decisions.

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### What You Need to Know

Many social software technologies and approaches are at the early stages of their evolution as evidenced by the density of the "dots" climbing up the slope of our Hype Cycle curve toward the Peak of Inflated Expectations. Most of these technologies will reach the mainstream as features in conventional products or in collaboration and social software suites, rather than as specialist products from small vendors. However, given the expanding options available for business as innovative newcomers enter the market and mainstream vendors begin to deliver social software suites, there are already opportunities for early adopters. Despite the relative immaturity of many of the technologies discussed in this report, it is important to assess whether compelling reasons exist for early investments. Even where early investment cannot be justified, it is prudent to use the time until the market matures to establish where social software may fit in your organization and the implications that it might have in terms of business value, culture change and risk management.

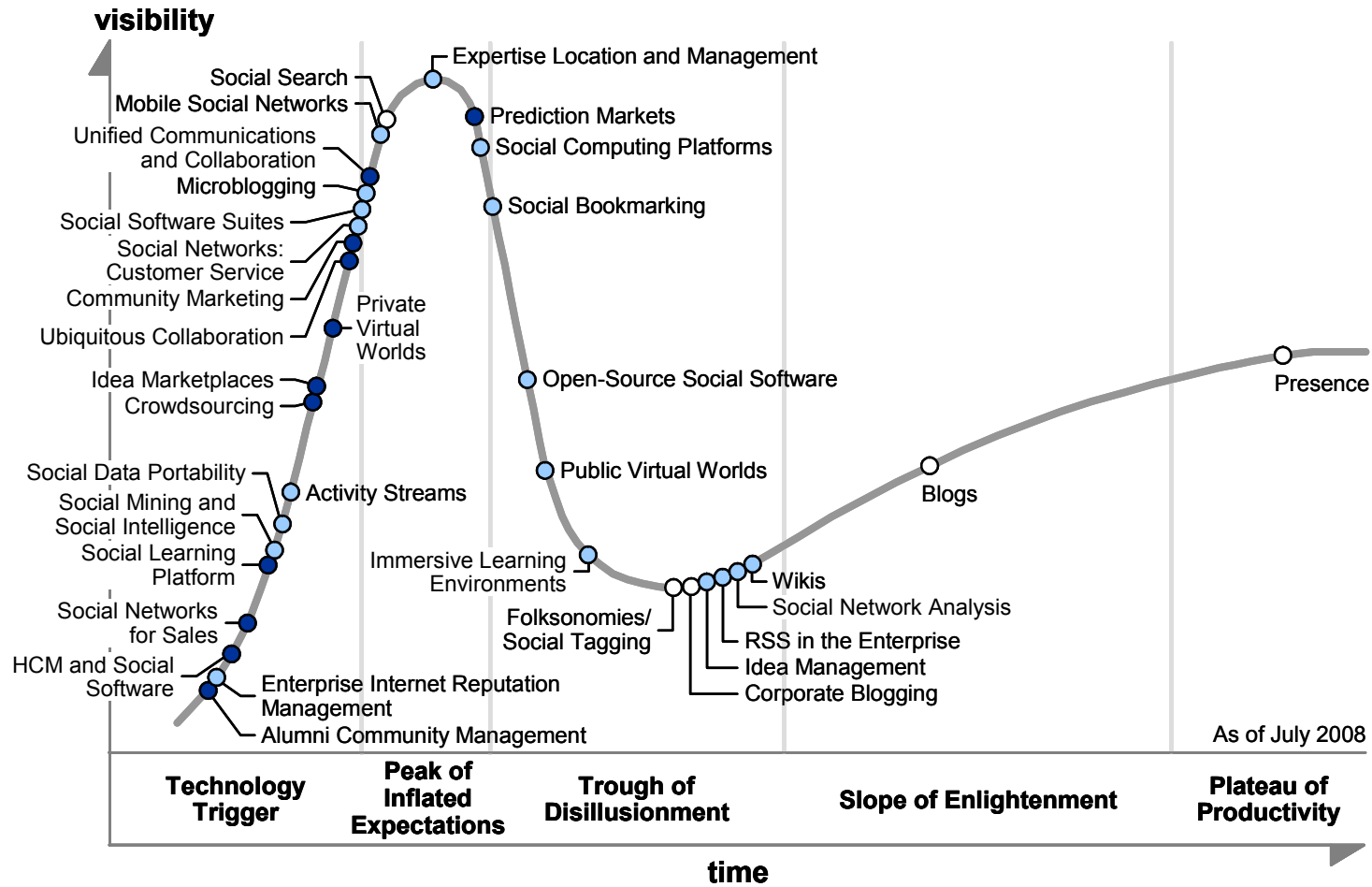
### The Hype Cycle

As this is the first Gartner Social Software Hype Cycle, we had to start by establishing its scope and boundaries — what to include and what to leave out. Our guide in setting boundaries was the degree to which a particular technology, approach or discipline encourages, enriches, captures and even helps to structure formal and informal social interactions.

In particular, we looked at different ways in which communications, conversations or collaborative work can be supported and captured as a by-product of free-form interaction and open participation, especially where large numbers of loosely connected individuals are involved. Many such technologies (for example blogs, wikis, social bookmarks and social tagging) are used widely with consumer services on the public Internet and are already finding their way into business environments (see "Survey Says Social Software Tools Are Seeping Into the Enterprise; Will Learners Benefit?"). There is a range of analysis, filtering and recommendation technologies (for example social network analysis and collaborative filtering) that have been created and successfully developed from the public Internet that make it possible to reveal patterns in the relationships among participants and between the participants and the resources they interact with. The patterns of group activity can promote "findability" through community classification mechanisms, or personalization through collaborative filtering. These analysis, organization and recommendation mechanisms are not yet common in social software products.

Apart from highlighting specific social interaction support and analysis technologies we also look at their packaging into specific product categories and in particular the tentative emergence of the "social software suite." Another trend is that of using social software technologies to add value in adjacent technology categories — for example in mobile social networks or social learning platforms. Finally, we identify some of the most promising areas where use of social software is having an impact — for example community marketing, idea marketplaces, alumni management and social networking for sales.

**Figure 1. Hype Cycle for Social Software, 2008**



Source: Gartner (July 2008)

## The Priority Matrix

The applicability of social software is very broad, both in terms of relevant business processes and in potential participants inside or outside an organization. Some of the technologies likely to have "moderate" impact, such as blogs, wikis, Really Simple Syndication (RSS) feeds, for example, add usability, transparency and persistence to information creation and information sharing activities that already take place, but don't fundamentally change them. However, as the volume of interactions and the volume of resources created and shared using social software rises, we expect to see a growing need for social filtering technologies that help to analyze this information, to reveal patterns and to help users navigate and interact with complex information and social network spaces. Once the fundamental social software technologies are mature enough to support sustainable communities, their application on a large scale to specific business contexts, such as customer service, marketing, learning, idea marketplaces and crowdsourcing, for example, is likely to have a high or transformational impact.

**Figure 2. Priority Matrix for Social Software, 2008**

benefit	years to mainstream adoption			
	less than 2 years	2 to 5 years	5 to 10 years	more than 10 years
transformational	Presence	Public Virtual Worlds Social Networks: Customer Service	Community Marketing Idea Marketplaces Ubiquitous Collaboration Unified Communications and Collaboration	
high		Activity Streams Enterprise Internet Reputation Management Expertise Location and Management Social Bookmarking Social Data Portability Social Mining and Social Intelligence Social Software Suites	Crowdsourcing Private Virtual Worlds Social Learning Platform	
moderate	Blogs Corporate Blogging Folksonomies/Social Tagging Social Search	Idea Management Immersive Learning Environments Microblogging Mobile Social Networks Open-Source Social Software RSS in the Enterprise Social Computing Platforms Social Network Analysis Wikis	Alumni Community Management HCM and Social Software Prediction Markets	
low			Social Networks for Sales	

As of July 2008

Source: Gartner (July 2008)

## On the Rise

### Alumni Community Management

**Analysis By:** Thomas Otter

**Definition:** Alumni community management is the management of online networks of former employees. Increasingly, employees and alumni are using social software to network and connect.

Organizations use these networks for referrals, rehires and business development. This is largely driven by the intensifying talent and skills shortage, and the emergence of social software in the consumer space. Informal networks have existed for decades, but we are now seeing the

emergence of a class of software and services that provide sophisticated solutions to manage alumni networks. This trend began in the professional services industry but has grown beyond that.

**Position and Adoption Speed Justification:** Few organizations outside of "elite" management consultancies or universities have focused significant efforts on managing alumni. Recent advances in technology, such as Web 2.0 capabilities for social software and managing communities, coupled with a stronger organizational focus on looming talent shortages, mean that more organizations are looking to build online communities to tap into alumni. Alumni networks are relatively simple to deploy, and they can provide a good return on investment — for example, by rerecruiting former employees, reducing hiring costs through referrals, and business lead generation through alumni contacts.

**User Advice:** Consider building an alumni network if your organization faces significant aging workforce or diversity challenges or recognizes that the costs and risks of hiring can be reduced by fostering communities of employees and potential candidates that would be harder and more expensive to track by other means. Unless you have significant experience in social software networks, we advise using a vendor that has built a network before. Do not underestimate the politics around "opening up" to former employees. See "Case Study: Dow's Formula for Social Software" for an example of how to effectively use social networks for retirees and for employees on career breaks.

**Business Impact:** Organizations in many industries face significant skilled-talent shortages. As experienced engineers and other experts retire, there simply isn't the pool of candidates to fill the gaps. HR departments will need to be more creative in sourcing candidates. A well-run alumni network can bring qualified referrals, and lead to cost-effective rehires. By keeping in contact with retirees, you maintain a valuable pool of potential contractors and part-timers. By remaining in touch with mothers and fathers on career breaks, you increase the chances that they will return to work with you. The network also has business development benefits, as illustrated by the professional service firm examples.

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Affinity Circles; Conenza; SelectMinds; umantis

## Enterprise Internet Reputation Management

**Analysis By:** Toby Bell; Carol Rozwell

**Definition:** Enterprise Internet reputation management is the proactive process of tracking and responding to threats and opportunities related to an enterprise's online image affected by traditional and social media alike on the Web. Anonymous users, vast amounts of very persistent data, the emergence of more-powerful search engines and algorithms, and the movement of markets toward growing online customer bases make enterprise Internet reputation management a key consideration in strategic planning.

**Position and Adoption Speed Justification:** There are many recent signals that enterprise Internet reputation management is becoming a business imperative. Many tools and services are emerging to help an enterprise manage its online and offline reputation, but effective strategy should precede any focus on technology as a savior.

**User Advice:** Do not rely on traditional methods of remediating reputation on the Web, where users are not held accountable and face little risk of their own reputations being damaged by their falsehoods or distortions. Relish the opportunity to engage malcontents and unsure customers as well. However, recognize that loss of control, the potential for bad participant behavior and even the remote possibility of a community revolt can frighten business and IT leaders, even as they should pursue the opportunity to engage. Have a working group and a plan that comprises iterative policies and procedures that will help ensure that enterprise reaction to the risks of participation does not overwhelm the promise. Clarify employees' responsibilities regarding the posting and maintenance of company-related information on public Web sites. In addition, customer and competitive intelligence officers should establish standard procedures for Internet-resident data validation. Understand how the effect of negative events on others can help determine your relative risk profile as well as define appropriate planning approaches.

**Business Impact:** The emergence of peer networking means that the potential for an online reputation to be tarnished via blogs, media outlets, competitors or employees is increasing. For many enterprises, the influence of Internet social media has resulted in a crisis of confidence in their ability to manage opinions about their brand and business. Those C-level executives with consumer-facing products and messaging most clearly have cause for concern, but government agencies, professional services firms and even technology research companies have a great deal to lose if they do not become more adept at enterprise Internet reputation management.

**Benefit Rating:** High

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Biz360; BuzzLogic; Factiva; MarkMonitor; RatePoint; Reputica; Visible Technologies

**Recommended Reading:**

"Recent Negative Reputation Events and Outcomes"

"Policies and Procedures to Manage Enterprise Internet Reputation"

"Toolkit Best Practices: Managing Enterprise Reputation in the Social Media Chaos"

"Use Care and Caution to Qualify Insights From the Internet"

## **HCM and Social Software**

**Analysis By:** Thomas Otter

**Definition:** Social software covers a range of functionality, from wikis and blogs to social networks and social bookmarking. These technologies are beginning to have a significant effect on human capital management (HCM)-related processes and systems. Social networks such as LinkedIn and Facebook are changing recruitment techniques and strategies, and wikis enable policies and procedures to be developed more collaboratively. Social software features are appearing in HCM applications such as performance management and learning applications. Alumni community management has emerged, driven largely by the availability of social software and the broader social changes due to consumer social networks.

You should understand the impact of social software in two contexts:

- Social software tools and networks such as Facebook being used by employees.

- Social software technologies becoming part of established HCM solutions (for example, wikis for knowledge sharing or collaborative features, such as tagging and voting).

Although these tools will affect how HCM processes are done, the bigger impact of social software and networks is in how the HR function will shape organization policy and practice toward social software and network use by the broader organization. By its very nature, social software is largely the relationship between people. Whether it be blogging policies, collaboration networks or contact management, they all require HCM involvement.

**Position and Adoption Speed Justification:** HR-HCM departments are beginning to understand that social software can improve HCM processes, and HCM vendors are starting to include collaboration features in their applications (see "Case Study: Dow's Formula for Social Software"). Leading HR-HCM departments are making extensive use of blogs internally and externally. Wikis are being used to document and collaborate on policies. IBM's social software guidelines are a pioneering example of wiki-driven policy definition. Social networks have started to alter the recruitment and e-learning landscape.

HR is also under pressure to define guidelines for broader social software use in the organization. What practices should be encouraged? What should be prohibited? Questions arise in how to reward for contribution and collaboration. Privacy remains a poorly understood challenge and risk. There is a lot of hype, but examples of fundamental transformations driven by social networking in the enterprise remain illusive.

**User Advice:** Develop awareness about social software and social networking.

Look for quick wins in HR, such as alumni management.

HR leaders need to focus on building policies and procedures that enable the broader organization to benefit from social software and networks. Work with employees, managers and the legal department to build policies and procedures that enable employees to use these tools responsibly. IBM's social computing guidelines are an excellent example — the policy was built through extensive employee input via a wiki.

Build privacy and security into your policy and solution design from the beginning.

HR executives should use social software tools in HCM processes such as recruitment, performance management, succession planning and compensation.

Include social software features in HCM solution evaluation criteria.

**Business Impact:** HCM solutions are including social software features into their applications, but the bigger business impact of social software in the HR context will be on the organization culture.

Social software can alter the organizational fabric and organization culture, creating a more open and collaborative work environment. This, in turn, creates demands for new policies and pay, succession, learning and recruitment strategies. HR departments will be strongly affected by these changes. The long-term success and failure of social software in organizations will depend significantly on how well HR adapts to it. Today, we rate the benefit of social software solutions as moderate, but we expect their significance to grow rapidly.

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Conenza; Cornerstone OnDemand; Oracle; Plateau; SelectMinds; SuccessFactors; Taleo; Umantis

**Recommended Reading:**

"Findings: What's Learning Got To Do With It?"

"Key Issues for Creating a Networked Learning Environment, 2008"

## **Social Networks for Sales**

**Analysis By:** Michael Dunne

**Definition:** Social networks represent Web environments where individual information concerning personal and professional backgrounds is aggregated, presented and shared. Typically, applications are provided to document and filter connections between individuals, present content on profiles, support various multimedia, and facilitate communications between people. Ideally, a social network site will attract a critical mass of subscribers to provide healthy communities and opportunities for people connected by events, products or demographics to develop contacts based on personal, professional and educational backgrounds or interests.

Within a sales context, the rise of social networks in the consumer Internet marketplace has stimulated ideas on exploiting such capabilities for gathering intelligence on prospective companies and existing accounts. In particular, sales organizations are interested in acquiring more-comprehensive information on the positions and backgrounds of potentially influential people to help lead sourcing and account management. In addition, companies have also viewed social networks as a new medium for soliciting and exploring candidates for hiring. There are three broad categories of social networks currently attracting interest:

- Independently hosted networks (such as LinkedIn) that have gained disproportionate attention due to rapid adoption by consumers.
- Company-hosted communities that are mainly employed to provide customer service and support, or to facilitate customer-to-customer support. However, opportunities may exist for applying similar capabilities in support of sales constituencies.
- Internal social networks focused on exploiting external data sources. This approach draws on crawling technologies to identify "who knows who," based on information gathered from e-mail, instant messages and various applications (such as sales force automation and billing).

**Position and Adoption Speed Justification:** Efforts to exploit social networks as a formal strategy remain limited and in the preliminary stages within a few interested sales organizations due to concerns about how best to integrate social-network applications with sales practices and enterprise systems. To date, most usage of these sites represents individual initiatives by salespeople seeking to source leads and additional information on accounts, or by sales managers seeking job applicants. From now on, adoption will be hindered by sales management's perceived liabilities associated with this technology, including the possibility of confidential information being revealed; that networks may help salespeople search for jobs elsewhere; alienating potential contacts with inappropriate sales soliciting; and that the utility and quality of information eventually accessed may prove less than acceptable to justify efforts.

**User Advice:** Companies seeking to aggressively adopt innovation should explore techniques and applications found on consumer social networks for implementation within "closed" internal sales team sites, where the company is hosting the technology. Specifically, companies should

focus on gathering territory and account intelligence, and establishing connections of known influencers for sales teams to engage.

In general, sales organizations should consider limited pilots at this point, with trusted sales resources to evaluate the applicability of social-network technologies for aiding individual efforts in sourcing leads and acquiring intelligence on accounts. For companies expanding sales forces, sales managers — with guidance from human resources — should explore using social networks to help hiring efforts.

**Business Impact:** Social networks may provide additional, useful tools for organizations where the sales team spends significant amounts of nonselling time sourcing leads on its own. This could prove especially compelling in organizations where more than 20% of a work week is invested in individual lead-sourcing efforts. In addition, for organizations struggling to hire salespeople, social networks could help sales management with accelerating efforts to gather job candidates.

**Benefit Rating:** Low

**Market Penetration:** Less than 1% of target audience

**Maturity:** Embryonic

**Sample Vendors:** Comcast; Jigsaw; LinkedIn; Spoke Software; Thomson West Contact Networks; Visible Path; Xing; ZoomInfo

## Social Learning Platform

**Analysis By:** Carol Rozwell; Marti Harris

**Definition:** A social learning platform is an extension of traditional systems for learning management and learning content management that incorporates social software features to support informal as well as formal learning activities.

**Position and Adoption Speed Justification:** As awareness of informal social settings and their impact on learning grows, employees are demanding Web 2.0 features to support collaborative learning environments. Vendors are adopting product development strategies that are social learner-centric, while learning organizations are exploring new social software options. A social learning platform is emerging as companies and educational institutions want to tap into the collective knowledge of their employees or students and increase the organization's capacity to learn.

**User Advice:** Organizations that currently have applications installed for learning and content management should engage with their current vendors to understand the product development road map for enhancing systems with Web 2.0 features. If their current vendors do not have plans for adding Web 2.0 features or the time frame for development is too long, look for solutions that can be easily integrated into the learning architecture. Solutions already in place are preferred over solutions procured specifically for learning purposes. Organizations that do not currently have systems for learning and content management, or which are looking to consolidate multiple learning applications, should add support for a social learning platform as an important evaluation criteria.

**Business Impact:** The social learning platform gives learners the ability to: establish a presence, or social profile, that reflects their expertise and interest; create, discuss, share and capture learning content as learning objects; organize and find learning objects from a variety of sources, such as search or peer ratings; interact with peers in their social network and be able to reach

beyond their network to other trusted sources of information; and engage in experience-based, learning exercises.

**Benefit Rating:** High

**Market Penetration:** Less than 1% of target audience

**Maturity:** Emerging

**Sample Vendors:** Mzinga; OutStart; Saba; SumTotal

**Recommended Reading:**

"How to Overcome the Challenges of Using Social Software Tools With Corporate Learning Systems"

"Survey Says Social Software Tools Are Seeping Into the Enterprise; Will Learners Benefit?"

## **Social Mining and Social Intelligence**

**Analysis By:** Kathy Harris; Ray Valdes

**Definition:** Social mining and social intelligence (SM/SI) are processes for developing and applying analytics to social content. These technologies will enable organizations to discover and make sense of the knowledge, behaviors, affiliations and tendencies of Web communities, societies and environments. These technologies will be used by organizations to understand and exploit the underlying dynamics of Web societies. These technologies are critical to vertical industry scenarios in which social data mining, semantic discovery and relationship analytics are used in areas such as counter-terrorism, targeted advertising, fraud prevention and specific applications such as compliance with Nevada state gaming regulations.

### **Background**

Organizations are building Web-based social environments with the expectation that complex communities will form, function and evolve. This evolution is expected to yield useful, high-value content and critical insight into the wants, needs, tendencies and ideas of these societies. Organizations create these Web environments by establishing an infrastructure, inviting participation (by employees, customers, partners, experts or diverse combinations thereof) and providing support for specific activities. Once the environment is in place and active, the participants will typically expand their activities to include additional informal and, often, unforeseen behaviors and output.

Organizations also have secondary sources of social Web content. These are external environments that the organizations neither own nor manage. These Web sites offer public or licensed access to private sites and content.

Organizations need to mine and make sense of these environments and the content they generate in ways that go beyond basic analytics, such as extracting facts, names or places — thus, the terms "social mining" and "social intelligence" distinguish this analysis from traditional data mining and business intelligence. The goal is to make visible implicit connections because knowledge of those connections will have direct or derived business value. A subset of this work is called "discovery of non-obvious relationships."

**Position and Adoption Speed Justification:** In 2008, social mining and analytics are emerging to observe and decipher the activities of Web communities. Most current mining uses traditional approaches such as tracking topics, participants, frequency of engagement, trends, and patterns of growth or decline in use. Social network mapping is also emerging to track activity levels,

connections, volumes and other patterns of participation by individuals and network nodes. Finally, human analysis and social sciences are used to observe and evaluate online activities to discern new behaviors and social changes that are unique to the Web or more feasible because of the Web environment. It is this human analysis and social science — extended and enhanced by sophisticated technology — that is the aim of social mining and social intelligence.

Social mining and intelligence must go deeper into the workings of complex Web communities and societies by analyzing conversational content and semantics to discern meanings, attitudes, intent, and individual or collective preferences of participants. With such insight, organizations can begin to predict the direction of a particular Web community or society, and its response to a particular stimulus or action. With this deeper understanding and predictive capabilities, organizations can engineer the infrastructure, processes and interactions (often in real time) to meet specific objectives, instill specific ideas or drive specific behavior.

This engineering approach includes directing information toward individual participants (to acknowledge their actions and contributions, thus providing further incentives for participation) and toward a full community (to increase the participation or the sustainability of the community or society).

**User Advice: Web-native or Web-focused organizations:** Look for early solutions now and begin using them. Seek out emerging vendors. Identify and use experts in behavioral analysis to manage your Web communities. Partner with other organizations to double up your investments and speed progress.

**Traditional organizations with significant Web channel strategies:** Use current solutions and monitor progress in SM/SI to maintain state-of-the-art practices.

**Traditional organizations with traditional Web channels:** Fast follow leaders in using SM/SI. If your Web channel strategy becomes more aggressive, then take more state-of-the-art positions in SM/SI.

**Vertical industry organizations with mature knowledge bases:** Look to social mining for the semantic discovery of non-obvious relationships.

**Business Impact:**

- Ability to predict behaviors and direction of Web communities and societies.
- Ability to better-engineer products, services and actions to achieve business objectives.
- R&D-like abilities to introduce ideas and see them develop.
- Earlier warning of decline in interest and interaction in your Web channel.
- Higher return on investment in Web channel.
- Fulfill high-value vertical industry scenarios.

**Benefit Rating:** High

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** IBM Entity Analytics; KnowNow; Lotus Connections Atlas; Telligent

**Recommended Reading:** "Social Mining and Social Intelligence: Making Sense of Web Societies"

## Social Data Portability

**Analysis By:** Brian Prentice

**Definition:** There is a growing view that the data emanating from and flowing through social networking applications should not be bound to proprietary social graphs — that is, the data models (or representational maps of the relationships between people in a specific context) implicit in social platforms and social networking applications such as Facebook, MySpace and LinkedIn. Social data portability is an emerging set of standards to achieve that objective. Examples include OpenID (which is a framework for representing user-centric digital identification), Attention Profiling Markup Language (APML — which is used to consolidate and aggregate individual users' ranked interests), and Outline Processor Markup Language (OPML — which is used for the exchange of reading lists between RSS and Atom news readers). Social data portability should not be confused with social network interoperability.

The objective of interoperability is to create shared functional capabilities and data transfer between social networking sites and applications. Interoperability is of particular importance to those developing applications that need to operate within and across the boundaries of specific social network applications. Social data portability, on the other hand, is essentially a discussion of data ownership. It is of importance in establishing control mechanisms that allow individuals or organizations to exert control over where their personal information is stored and how it is used. Ultimately, social data portability involves data formats that should act as a key enabler of more-effective interoperability. But, critically, these control mechanisms must also evolve to support privacy (which will have global variances because of differing legal and cultural requirements). Individuals and organizations should be allowed to revoke access to a piece of data at anytime past the point it has been transferred. So social data portability isn't just an issue of whether these standards are supported, but whether the service-level agreements of social networking sites support the broader spirit and objective of having it in the first place.

**Position and Adoption Speed Justification:** The issue of social data portability has taken a much higher profile following Facebook's successful launch of the Facebook Platform in mid-2007. That decision altered the social networking balance of power significantly in Facebook's favor. As users gravitated to Facebook, Google brought two key technologies to market — OpenSocial (which is a set of application programming interfaces [APIs] that any site could implement to create a common set of functional capabilities) and then Friend Connect (which is essentially a way to uniformly present and provide access to the repositories of social data). However, Facebook has yet to implement OpenSocial or grant access through Friend Connect. Facebook's reasons were that it was not invited to participate (as in the case of OpenSocial) and that doing so would make it impossible for users to revoke disclosure of information by Google once it had left the site (as in the case of Friend Connect). It has become clear that Google's efforts are largely a response to a very real competitive threat it faces to its Internet advertising business: Facebook's growing hegemony over the social graph represented a "walled garden" that it could exploit outside of Google's all-encompassing reach over the Internet.

On the other hand, regardless of Facebook's pleadings, the fact is that it isn't implementing OpenSocial, Friend Connect or any other technology to provide open access to its social graph — the ownership of which is paramount to its ability to realize the market capitalization potential that its recent agreement with Microsoft has set in place.

So, what looked like a straightforward approach to improve social networking interoperability has, in fact, exposed the machinations of the budding social networking industry to the IT community as a whole. The stakes of the game became apparent when the perception of the benign nature of owning the social graph was upset by Facebook's misstep with its Facebook Ads and Beacon advertising strategy. Although modified because of significant user and advertiser concerns about

privacy, it did highlight the risks associated with proprietary control of an ever-increasing social graph. The result is that there is a greater discussion of how to scale social networking without creating longer-term dependencies on third parties for access to the underlying data.

**User Advice:** Although driven by advocacy groups such as the DataPortability Project ([www.dataportability.org](http://www.dataportability.org)), an interest in or understanding of social data portability from enterprise IT is far behind that of the vendor and developer communities. Many enterprise IT organizations have been focusing on questions such as:

- Should we allow users to have access to external social networking sites such as Facebook, MySpace or Bebo?
- Will social networking be a drag on productivity?
- Should we consider social networking solutions from enterprise technology providers such as IBM, Microsoft or BEA Systems?

These questions expose a common shortcoming of enterprise IT organizations — a penchant to focus on specific products and vendors rather than the opportunities and risks associated with disruptive technologies. In the case of social computing, the asset — and hence the control point — is not the application or the site, but the social map that sits behind it. Products, therefore, are far less important than the data. As enterprise IT organizations begin seeing social networking more as a set of collaboration patterns to exploit rather than as just a set of products to manage, they will need to focus their attention on ensuring its integration into broader enterprise information management strategies. The ability to freely move social networking data around will be critical to realizing those efforts.

**Business Impact:** Social data portability will enable organizations to explore the potential of new social-oriented solutions without having to be overly prescriptive about which sites are allowable for end users. This will be important because organizations will most likely have to embrace the use of external social networking sites and applications by their employees. Additionally, should there be the need to build intercompany or interorganization social graphs, enterprise IT organizations would be able to avoid problems emanating from the efforts of walling off their social graphs.

**Benefit Rating:** High

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Emerging

**Recommended Reading:** "Three Potential Pitfalls of Corporate Social Networking"

## Activity Streams

**Analysis By:** Nikos Drakos; Ray Valdes

**Definition:** An activity stream is a notification mechanism that provides frequent updates to subscribers about the activities or events that relate to another individual. It can be a feature of social networking environments that enables users to keep track of the activities of others or a separate service that aggregates activities across multiple sites. For example, the scope of the activities covered may be limited to those undertaken within a particular environment (such as profile changes, new connections between users and message posts) or it could be much broader and include activities in other environments into which the activity stream has access (such as Twitter posts, general blog posts, uploads of pictures in Flickr and creation of new

bookmarks in deli.icio.us). There is a potential synergy with enterprise systems that support presence, but this is not uniformly exploited.

**Position and Adoption Speed Justification:** Activity streams are available and popular in social networking sites such as Facebook (News Feed and Mini-Feed), in blogging engines such as Wordpress (Actionstream) as well as in products such as Drupal (Activity Stream). Some consumer services such as FriendFeed, Spokeo and Plaxo Pulse focus specifically on user activity aggregation and can retrieve relevant information about a user from dozens of different Web sites. Additionally, it is usually possible for each user to control how much of their activity stream is available to which other users. Although several enterprise social software products support notifications via Really Simple Syndication (RSS), which can help to track changes to a page, a profile or a tag, they are not as sophisticated in terms of the diversity of the sources of activity information they can draw from, or in terms of how users can manage or consume this information. Some enterprise products are beginning to incorporate such functionality (such as Jive's Clearspace), but this is still rare.

**User Advice:** Tools that help individuals to expand their "peripheral vision" with little effort can be very useful. Being able to choose to be notified about new ideas, comments or the activities of others on the basis of who they are or your relationship to them is a powerful mechanism for managing information from an end user's perspective. Unlike e-mail, where the sender may miss interested recipients or overload uninterested ones, publish and subscribe notification mechanisms such as activity streams allow recipients to fine-tune and better-manage the information they receive. Given the lack of general availability of enterprise equivalents, it is advisable to spend some time understanding the consumer activity aggregation services to assess the relevance of these techniques in a business context.

It is also important to examine the plans of the collaboration or social software vendors with whom you are already working. One aspect of enterprise implementations that will require particular caution is the richness and flexibility of privacy controls that enable users to manage who sees what information about their activities.

**Business Impact:** There is an obvious application of activity streams when managing dispersed teams or when overseeing multiparty projects. Regular updates of status changes that are collected automatically as individuals interact with various systems can keep those responsible up to date, as well as keep different participants aware of the activities of their peers. Activity streams can help a newcomer to a team, or help an activity understand who does what and, in general, how things are done. More generally, activity streams, over time, can also help to create dynamic and rich profiles that can be used for expertise location or for improving "connectedness."

**Benefit Rating:** High

**Market Penetration:** Less than 1% of target audience

**Maturity:** Emerging

**Sample Vendors:** Drupal; Facebook; FriendFeed; IBM; Jive Software; Plaxo; Spokeo; Tomoye; WordPress

## Crowdsourcing

**Analysis By:** Jackie Fenn

**Definition:** "Crowdsourcing" is a term used to describe outsourcing a task to a broad, distributed set of contributors over the Web. In some crowdsourcing environments, contributors are volunteers (such as NASA clickworkers), in others they receive payment (such as Amazon's

Mechanical Turk), and in some they are prescreened for level of knowledge or skill. Crowdsourcing requires a way to specify the task, notify potential contributors, manage any payments and ensure some level of quality control on the contributions (particularly if payment is involved). In its broadest sense, crowdsourcing could be viewed as synonymous with collective intelligence (that is, Web-mediated mass collaboration such as Wikipedia or open source), but it is more often used to refer to a focused effort by a company or organization to achieve a specific task by drawing on contributors outside the immediate control of its management or contractual structures.

**Position and Adoption Speed Justification:** Crowdsourcing has been applied in a range of areas, from the U.S. Patent Office's pilot for reviewing patents to emerging peer-to-peer lending marketplaces such as Prosper and Zopa (where the marketplace owner can be viewed as having crowdsourced one of the core competencies of a lending organization — managing the risk). Marketing activities where customers create and rank ideas or design marketing campaigns have been a popular area, but consist mostly of generating input to be selected by an organization's employees, rather than an ongoing contribution to the organization's core processes.

There is a large untapped potential in applying crowdsourcing to a much broader range of tasks and goals, but also still little experience in where it is most effective compared with more-managed approaches. The tools to establish a crowdsourcing environment, particularly those involving micropayments, are still at an early stage as well.

**User Advice:** Tasks that can be broken down into small chunk sizes and attacked in parallel, such as classifying images, are the best candidates for crowdsourcing. Look, in particular, for opportunities to crowdsource tasks to which volunteers would be prepared to contribute, because you may be able to tackle new tasks in resource-constrained areas. Government organizations are often in a good position to take advantage of the willingness of citizens to help out in areas that affect their local environment or special interests.

**Business Impact:** There is the potential to dramatically increase available human resources to apply to a task. There is also the potential for new business opportunities by crowdsourcing core business competencies and changing the associated cost structure.

**Benefit Rating:** High

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Amazon.com; HumanGrid; Kluster

**Recommended Reading:** "Amazon Commercializes Microservices for Human Support of Automated Tasks"

## Idea Marketplaces

**Analysis By:** Kathy Harris; Carol Rozwell

**Definition:** Idea marketplaces facilitate the exchange of ideas and talent between owners and acquirers. Owners can make their ideas and talents visible and available. Acquirers can discover and gain access (via purchasing, licensing, open sharing or other arrangements) to the ideas and talent they need.

Note that idea marketplaces are business organizations that are users of Web technologies to support their processes. Examples of idea marketplaces are:

- NineSigma <http://www.ninesigma.com>

- Yet2.com <http://www.yet2.com>
- Innocentive <http://www.innocentive.com>
- YourEncore <http://www.yourencore.com>
- TechEx <http://www.techex.com>

**Position and Adoption Speed Justification:** In 2008, the majority of organizations use idea marketplaces to find ideas, experts and innovators. Because many marketplaces are focused on specific disciplines, industries or expertise, the volume of traffic and use is relatively low.

In the future, organizations will leverage idea marketplaces as a provider and acquirer of ideas alike. Such higher leverage will materialize as innovation and idea-generation processes mature in a significant number of organizations. Expect innovation maturity to proceed at a moderate pace between 2008 and 2012. At the same time, expect that global competition and participation will accelerate development of best practices in using idea marketplaces.

**User Advice:** If your organization or industry is R&D-intensive, and discoveries are the aim of innovation (for example, pharmaceuticals, semiconductors, motor vehicles or aerospace industries), then use idea markets to acquire ideas or talent to shorten time to market, to access needed critical or complementary expertise, and to lower overall investment in discoveries and products. Also, access these marketplaces to sell ideas or talent as a source of revenue.

If your organization or industry's innovation efforts are aimed at intangibles such as services or research, the risk of replication of ideas by others is high and relatively easy. Avoid idea marketplaces in these risky scenarios — the benefits may not be worth the risk.

If your organization aims to develop specific technologies or components (that is, the technology or component is not the final product but is potentially a key element of many of your own or others' products), then use idea marketplaces with caution. Using idea marketplaces to sell or license your ideas or expertise offers revenue potential; however, marketplaces where others participate in your same fields of research may present high risk of loss of ideas or intellectual property.

**Business Impact:** For owners of ideas, or for experts and innovators:

- Access to broader markets for your ideas or expertise.
- Lower cost of sales for owners — online marketplaces are typically at low entry costs, and access to acquirers is highly scalable.
- Expanded visibility for ideas, brand and achievements.
- Increased opportunity for partnering.
- Attract like-minded collaborators and innovators.

For acquirers of ideas, experts and innovators:

- Shorter time to market.
- Lower overall investment and potentially avoid failures.
- Stimulate your own creativity through access to new ideas and ways of thinking.
- Potential for enhancing or extending your own ideas.

- Learn the selling or licensing business.
- Discover ideas in one domain that may have application in another.
- Find like-minded innovators and collaborators.

**Benefit Rating:** Transformational

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Adolescent

**Recommended Reading:** "Idea Marketplaces: Access to a World of Innovation"

## Private Virtual Worlds

**Analysis By:** Steve Prentice

**Definition:** A private virtual world (or "intraverse") is an online networked virtual environment — but hosted on corporate infrastructure behind the enterprise firewall (or on secure service provider facilities) with restricted access — in which participants are immersed in a 3-D representation of a virtual space.

**Position and Adoption Speed Justification:** The growth in the use of private virtual worlds by enterprises (that is, behind the firewall and accessible by employees only) is being driven by justifiable concerns over security, availability and the lack of stability and control inherent in public virtual worlds, together with a growing recognition that the highly immersive nature of these environments provides a powerful learning environment and a collaboration tool for distributed enterprises and can reduce the requirement for extensive travel to meetings. Because enterprises are increasingly globalized and virtualized, employee interaction, collaboration and communications are challenging, and any tool that supports a more interactive and engaging environment with a richer range of communication options will prove attractive, especially if issues of security, access and availability are resolved.

The last 12 months have seen the release of open-source toolkits, products and services that have made the creation of virtual worlds much easier. The ability to import 3-D objects via standard data files introduces the ability to more easily create "mirror worlds" that mimic the real world, or to bring real-world objects into the virtual environment for display or analysis. Service companies, which sprang up to meet the expected demand for builds in public virtual worlds, have refocused their attention toward intraverse solutions, eliminating more barriers to entry.

However, inhibitors remain, including ongoing issues with complex and nonintuitive user interfaces and lingering concerns from business leaders and IT management over the value of virtual environments, as compared with tools such as WebEx and videoconferencing.

**User Advice:** The early development environments that originally were targeted at the online gaming sector are being supplemented by tools targeted more directly at enterprises and focusing on online education, scenario/role playing and collaboration. Many of these environments are open-source, with active online support communities, and offer an easy route for enterprises to evaluate and experiment in this area. Companies wishing to use a service provider will find a growing interest in private-virtual-worlds projects from established design/build houses in the virtual-worlds space.

Enterprises should prioritize intraverse projects ahead of public-virtual-worlds projects, because the direct benefits in improved collaboration, enhanced training and reduced travel time are more directly measurable and can be used to build a sound business case around a well-planned and carefully implemented project. Avoid nonfocused projects, where the expected benefits are

neither clearly defined nor measurable. Small "sandbox" or project-based deployments offer the best route toward producing demonstrable results.

**Business Impact:** The more immersive environment that is supported by virtual worlds can lead to improvements in levels of internal collaboration within the enterprise, especially across geographically and culturally diverse, technology-aware workforces. Corporate training, evaluation and scenario planning are possible application areas.

**Benefit Rating:** High

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Croquet Consortium; Forterra; GarageGames; ProtonMedia; Qwaq; Rivers Run Red; Sun Microsystems

## Ubiquitous Collaboration

**Analysis By:** Jeffrey Mann

**Definition:** Ubiquitous collaboration describes the use of collaboration services as an inherent part of all work. With ubiquitous collaboration, it will be possible to collaborate with anyone, at any place, at any time. Collaboration support technology would be available seamlessly for intracompany and intercompany collaboration through devices, portals, business applications or other specialized clients. Ubiquitous collaboration will make the current distinctions between asynchronous and real-time collaboration and different modes of collaboration increasingly irrelevant. Progress from mobile collaboration and integrated collaboration will contribute toward making ubiquitous collaboration possible. No single vendor is addressing all of its possible forms; however, many vendors contribute parts.

**Position and Adoption Speed Justification:** Collaboration is already available in many devices, applications and systems. As it becomes more integrated, the services that are available from one computer will be available seamlessly for intracompany and intercompany collaboration, as well as through personal digital assistants (PDAs), in-car screens and phones. With ubiquitous collaboration, real-time and asynchronous collaboration will be fully integrated.

**User Advice:** Achieving ubiquitous collaboration is more likely to be a result of several other successful initiatives than a specific objective. Users will know that they have achieved ubiquitous collaboration when collaboration becomes an attribute of other activities and job functions, rather than a discrete technology or task. Users should concentrate on more-achievable goals (such as contextual collaboration, mobile collaboration or integrated collaboration) and training programs to encourage the cultural change this requires.

**Business Impact:** The business impact will be felt in situations with cross-organizational and industry boundaries. Early adopters will include consulting services, manufacturers, pharmaceutical companies, financial services and media.

**Benefit Rating:** Transformational

**Market Penetration:** Less than 1% of target audience

**Maturity:** Emerging

**Sample Vendors:** Cisco Systems; Google; IBM; Microsoft; Nokia

## Community Marketing

**Analysis By:** Adam Sarner

**Definition:** Community marketing is the harnessing of community input and the cultivation of customer advocates within a community. It includes moderated message boards, blogs, podcasts, list server applications, rating and reputation systems, customer review entries and other word-of-mouth techniques. Community marketing can use company-sponsored public communities (anyone can join) or private communities (invited or registered users only). Marketers also participate in communities created and maintained by communities themselves.

**Position and Adoption Speed Justification:** Web 2.0 (which includes concepts and technology surrounding community input) is raising visibility regarding the power of communities and how marketers can start tapping into it to get a fuller understanding of customers' wants and needs. Ownership and maintenance of community-enabling technology, such as podcasts or message boards, are still forming, because technology can be "operated" by companies or other communities. In addition, other collaboration and community marketing methods are still emerging. Data collection for segmentation, reputation and even influence scoring capabilities are developing in mainstream markets such as Web analytics and multichannel campaign management.

**User Advice:** Consider an online community as a pipeline for customer feedback. Marketers can participate in and collect data from communities to define, create and improve marketing campaigns and promotions, as well as future product and service planning. Feedback isn't always positive, and harnessing a group and establishing trust means relinquishing a large amount of control to the community. If a company is hosting a community, then some ground rules can be set, such as conduct, but companies must be prepared to accept the bad with the good. Accepting the negative feedback with the positive will show that the company is truly interested in receiving contributions. If a company isn't willing to address any of the negative comments, then it shouldn't host a community.

**Business Impact:** Community marketing can keep people engaged with a company. It promotes follow-up for more information and creates customer advocates, which can be powerful influencers of purchasing decisions. Customer suggestions, feedback, desires and so on can be collected from community sites and used for branding, campaign management, loyalty, segmentation data or group/individual satisfaction measurement, as well as for sales conversion.

**Benefit Rating:** Transformational

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Communispace; Digg; Lithium Technologies; salesforce.com; vBulletin; Yahoo

### **Recommended Reading:**

"Five Best Practices for Establishing an Online Community for Marketing Benefits"

"How 'Generation V' Will Change Your Business"

"Four Online CRM Technologies Will Increase Conversion Rates in 2007"

"E-Marketing Improves the Customer's Buying Process"

"World-Class Building Blocks for Multichannel Campaign Management"

## Social Networks: Customer Service

**Analysis By:** Michael Maoz

**Definition:** Engaging and managing an online community of "by invitation only" customers in multiyear discussions and interactions is a way to move beyond marketing messages and toward better methods of engaging customers during service interactions. It also includes enabling end users to populate a business's self-service knowledge database, with all the overhead this involves.

**Position and Adoption Speed Justification:** In 2007, more than 90% of online community activity was directed at marketing. During the next 24 months, leading companies will extend the goals of their community activities to the design of enhanced service processes.

**User Advice:** Organizations already using online community management should begin discussing current successes with the customer service organization. Together, they should identify the types of service interactions that might be improved through dialogue with the community. Make plans to integrate questions and activities that the community can undertake to solve the problems of poor service.

**Business Impact:** Because advanced computer techniques and analytics tools are essential to detect trends in customer service needs, the business impact is high. These needs are more easily captured more rapidly and in greater detail through the direct interaction of customers.

**Benefit Rating:** Transformational

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Communispace

## Social Software Suites

**Analysis By:** Nikos Drakos; Anthony Bradley

**Definition:** Social software refers to the tools that encourage, capture and organize open and free-form interaction between employees, customers and partners. It is a "socializing" technology — sometimes also referred to as Enterprise 2.0 — that enables a grassroots approach to creating and exploiting collective knowledge. It supplements and strengthens pre-existing connections, behaviors and norms (for example, degree of connectedness, social signals, peer recognition and perceptions of impact on others). We see social software as spanning a spectrum. At one end, it includes social extensions to conventional collaboration support environments that can provide the means for interaction and information sharing. At the other, it includes strong social software environments that also allow social patterns to emerge and evolve among larger numbers of loosely connected individuals.

It is already evident that functional boundaries in different products are constantly shifting and there are very few "pure" products. Most offer a "blend" of different capabilities and we expect that successful products will continue to assimilate new functionality. More and more products are claiming a broad set of capabilities, but there is little consensus on what constitutes a "complete" social software suite. Instead, different products offer different sets of social software capabilities, such as user profiles, shared work spaces, document sharing, discussion forums, wikis, blogs, social tags, social bookmarks, social network analysis, social network visualization, content feeds, people search (expertise location), content rating, reputation management and alerting. Some are more focused on internal users, with an emphasis on integration with existing

infrastructure, business applications and other enterprise requirements (such as "auditability" and compliance). Others place more emphasis on extranets with support for secure information transfer between organizations. And some target "closed" or "open" external customers or user communities with good support for large-scale deployments, consumer engagement and management of untrusted content (such as moderation and spam filtering).

**Position and Adoption Speed Justification:** Awareness of socializing technology is high because of the popularity of related consumer social software and Web 2.0 services. Within businesses, there is strong and rapidly growing evidence of experimentation and early production deployments. We see pent-up demand from workers who use it on the consumer Internet and enthusiasm from business managers who expect these tools to help them boost the connectedness and performance of their workers. But we also see some apprehension and fear from those responsible for security, compliance, enterprise architecture and risk management in general. On the supply side, options available for business use are expanding rapidly as innovative newcomers enter the market and mainstream vendors begin to deliver social software suites. The movement from point tools to integrated suites has brought relief but also high expectations. We are beginning to see some disillusionment with the realization that, even with a suite, much work must be done to build an effective social software deployment. Accordingly, industry is starting to move from general-purpose suites to more targeted products concentrating on "horizontal" social business challenges, such as idea engines, prediction markets and answer marketplaces.

**User Advice:** IT managers should resist the demand from users to simply install social software tools without thinking through how they will be used. Early implementations should not only evaluate the maturity and usability of the technology but, even more important, they should be set up to answer questions about business value and relevance to specific business contexts. Given the very broad range of use cases and activities that can be supported with social software suites, it is important to prioritize them when it comes to actual deployment. Many early deployments have failed, been ignored or slowly withered because they lacked a clearly defined and appropriate purpose. Deployments should incorporate several elements, including: ease of use, identifying the right context, exposing connections, appealing to self-interest and gaining management recognition. Before investing in social software, IT managers should understand where it fits in the context of existing workplace applications and practices — for example, in creating documentation, classifying information, improving search relevancy, exploring ideas and making decisions.

**Business Impact:** Enterprise social software adds persistence, and reflects and reveals structure in otherwise transient informal interactions between workers in an organization. Valuable business information is created, shared and refined through self-selection, social incentives and decentralized control, rather than by top-down resource allocation and mandates. We expect that social software will be relevant in connecting individuals to communities of interest and practice, or in stimulating multidisciplinary collaboration that involves exploration, innovation, creativity, discovery, knowledge capture and training. However, evidence of successful social software deployments is still limited. The risk of organizational culture clashes, privacy concerns and questions about worker productivity and content quality highlight the need for caution.

**Benefit Rating:** High

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Emerging

**Sample Vendors:** Atlassian; Awareness; blueKiwi Software; HiveLive; IBM; Jive Software; Leverage Software; Near-Time; Ning; Novell; SelectMinds; Socialtext; Tomoye

### **Recommended Reading:**

"Key Issues for Enterprise Social Software, 2007"

"Enterprise Social Software to Boost Efficacy of Non-Routine Work"

"Tutorial: Social Context, Not Technology, Defines Social Software"

"Seven Ways to Succeed With Wikis and Social Software"

"Roundup of Social Software Research, 1H08"

## **At the Peak**

### **Microblogging**

**Analysis By:** Ray Valdes

**Definition:** "Microblogging" is the term given to a narrow-scope mode of social communication that was pioneered by the social network site Twitter and followed by similar services from Pownce, Plurk, Jaiku (acquired by Google) and iRovr. The concept is surprisingly simple: users publish a one-line status message to their contacts, who are whoever cares to follow their activities on the service. In turn, users can see the collected statuses of the people they choose to track. Twitter initially used "friend" to label this connection but later switched to the more-neutral terms "follower" and "followee." The content of status messages (often called "tweets" on Twitter) range from mundanely trivial ("I am eating eggs") to a random insight ("I think blogging is our online biography in prose, and Twitter is the punctuation") to reaction to an event ("The speaker at this conference just made an awesome statement").

Twitter-style messaging is often called "twittering" but is also now referred to as microblogging by those who want to broaden the focus from a single vendor, as well as to point out how this style of communication has partially replaced blogging. In the legacy world of blogging, there are different types of blog posts, some of which are long, rigorous theses, but many are trivial and quotidian. Rather than write a one-paragraph blog post about your cat's meal, it is easier for writer and reader alike to do it via Twitter or a related service. Microblogging improves the quality of blogs by improving their signal-to-noise ratio — that is, the noise gets shifted to Twitter.

Twitter was founded by Evan Williams, one of the early pioneers of blogging. He sold his earlier venture, Blogger, to Google in 2003. Twitter has attracted industry attention because many of the prominent thinkers and participants in technology and social media circles shifted their mode of communication, from WordPress-style blogging and Facebook-style social networking to Twitter-style microblogging. The current user population on Twitter is approximately 1 million users.

The system intentionally constrains messages to 140 characters, which is what can be sent via a Short Message Service (SMS) message on a mobile phone. This simple constraint enhances the user experience of those who consume this information, because tweets are small tidbits of information, easily digested and just as easily ignored, as the moment dictates. Other constraints are intentional and intended to provide a high-impact user experience through minimalist design: no categories, no groups, no attachments and rudimentary search. These constraints are a matter of some debate among users, and have led to some third-party remediation tools for search (Summize, Tweet Scan, Quotably), as well as competitors with more full-featured alternatives (Plurk, FriendFeed, Swurl) or open-source approaches (such as Identi.ca).

One key factor behind Twitter's success over its competitors has been its early offering of an application programming interface (API) to third-party developers. This has led to dozens of packages that enable users to access the Twitter service and post content, either through a

mobile device or through a more full-featured desktop client. Examples include TWhirl, Twitterific and PocketTweet. These third-party packages can provide offline capability as well as features that fill in the gaps of Twitter's online offering.

Consumer-oriented companies have started to adopt microblogging, analogous to how they adopted corporate blogging. The companies best-known for use of Twitter are Zappos and JetBlue, but other companies active on Twitter include Southwest Airlines, Apple and Dell. Political campaigns are starting to get into this medium as well. The Barack Obama campaign has added it to its social media repertoire that includes Facebook, MySpace, YouTube and a personalized portal.

Microblogging has gained some prominence in the press due to its ability to rapidly disseminate news from primary sources, such as occurred with recent earthquakes in China.

**Position and Adoption Speed Justification:** Microblogging is at the evolutionary stage, where blogging was in 2005, having penetrated the early-adopter segment of the market, and is poised for mass adoption. Unlike blogging, which was a broad-based phenomenon not tied to a particular vendor or technology, microblogging has aspects that make some observers wonder whether it will ever "cross the chasm" to mass-market adoption. First, most of the activity has occurred on one vendor's system — a service that suffers regular outages and brownouts that continue seemingly unabated. Second, the constraints that were intentionally placed in the original version of Twitter are being loosened in some newer competitors' applications. For example, Plurk adds a visual timeline and verb structure to messages. Kwippy adds threaded discussions and integration with GTalk and Yahoo Messenger. These innovations have yet to resonate with the market, perhaps because they dilute the simplicity of the original concept — analogous to adding buttons and knobs to an Apple iPod.

**User Advice:** As the Web continues to evolve and amplify the social dimension, track microblogging as one potentially important social media channel. Do not use it in isolation from other social media channels such as blogging and video-sharing, but as a complementary mode of communication.

Adopt social media sooner rather than later, because the greatest risk lies in failure to engage, and thereby being left mute in a dialogue where your voice must be heard.

Before using social media to communicate, first listen to the channel, learn the language and become familiar with the social norms. Only then, begin speaking. As with any other language, good results arrive with regular, consistent practice rather than spotty participation.

View microblogging and social media as a two-way conversation rather than a one-way monologue or broadcast. Use third-party services such as Tweet Scan and Summize to track how your brand or organization is being discussed.

Use microblogging to enhance the experience and informational content associated with real-time in-person events such as conferences.

**Business Impact:** Used in isolation by a company or a brand, microblogging will have minimal business impact. However, the real-time, conversational aspects of this communication medium can provide strong reinforcement of core messages projected through other social media channels.

**Benefit Rating:** Moderate

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Emerging

**Sample Vendors:** Chirp; FriendFeed; Identi.ca; Jaiku; Kwippy; Plurk; Pownce; Quotably; Summize; Swurl; Tweet Scan; Twitter

**Recommended Reading:**

"Best Practices in Corporate Blogging"

"Analyze the Risks in Corporate Blogging"

"How to Select Technology for Corporate Blogging"

## **Unified Communications and Collaboration**

**Analysis By:** Jeffrey Mann; Matthew Cain

**Definition:** Traditional boundaries between collaboration and communications technologies are not blurring — they have been obliterated. From a single client, users can (and do) send instant messages, share applications, work on a whiteboard together, partake in videoconferences, transfer files, talk and view the working status of colleagues. And this is just the tip of the unified communications and collaboration (UCC) iceberg. Mashups, consoles, application programming interfaces (APIs) and packaged clients will enable other collaboration services to be blended into a mix that includes e-mail, Really Simple Syndication (RSS) feeds, calendars, blogs, tasks, wikis, personal pages and discussion threads.

These communication modalities will be consumed directly and be woven into applications where they will be contextually used. Contributions to the rapid ascent of UCC services come from the ubiquitous free access to the Internet — with excellent reliability and performance — and, increasingly, from traditional in-house IT groups. While the functionality is pulling together, we still rank UCC very early in the Hype Cycle because it is cobbled together from a variety of vendors with all the surrounding infrastructure, management, security, compliance and hygiene services being handled piecemeal. UCC only reaches maturity when it is deployed and managed as a common entity, thereby delivering operational efficiencies and common control.

UCC is a superset of unified communications, because it includes numerous collaboration services such as teamspace, calendars and blogs, in addition to the core collection of largely real-time communications services such as presence and voice over Internet Protocol (VoIP) that make up a unified communications suite. Because it is a much broader superset, current maturity levels and time to maturity are behind where pure unified communications would have been ranked.

**Position and Adoption Speed Justification:** UCC presents a significant challenge from a number of operational perspectives. Currently, many communications/collaboration components are bought and managed individually, bringing with them separate directories, management tools and user credentials. Organizations must focus on creating efficiencies across all aspects of UCC ownership, including:

**Hygiene:** Creating comprehensive hygiene services for virus/spam protection, content filtering and denial-of-service prevention is a challenge across communication modalities. Common filtering engines, quarantines and policies must be developed that allow for communication-specific idiosyncrasies.

**Compliance:** Creating standard policies for addressing internal records management needs and external regulatory compliance will be difficult. Different channels will require different archival services. Enterprises must focus on creating common routing engines, repositories and business rules.

**Integration:** Common interfaces, development tools and middleware, as well as an eventual adherence to service-oriented architectures, are needed to realize the goal of contextual collaboration services.

**Security and Identity:** Creating single sign-on mechanisms, developing common onboarding processes, using encryption services and securing endpoints are just some of the areas deserving scrutiny with UCC investments.

**Management:** Given the unified nature of UCC, common facilities for day-to-day configuration, maintenance, monitoring and alerting are necessary for maximizing uptime and minimizing operational duties.

Given these significant challenges in broadly deploying UCC, we think maturity will be at least five years away. In the meantime, organizations will deploy piece-parts of UCC, and perform some piecemeal integration. Vendor suites will become increasingly common, but it will be a number of years before suites include the whole gamut of UCC capabilities.

**User Advice:** Participation of a cross-section of relevant IT personnel in the planning process is crucial to a comprehensive and actionable UCC strategic plan. Because the issue is of critical importance to the evolution of the business, we suggest creating a UCC center of excellence with a C-level sponsor to heighten visibility and ensure proper participation. We prefer a dedicated resource — a project manager — to be responsible for all aspects of the plan, thereby ensuring timely deliverables and consistent attention. Each organization will have a different personnel make-up of their center of excellence, but, because the e-mail and voice infrastructures are critical components, we believe participation from those groups will be mandatory. Because security is of paramount importance — given the need for external access — active participation from that group is also essential.

Enterprises with concerns about regulatory compliance/records management should encourage relevant personnel to participate. In addition, because UCC services are significant consumers of directory, network and desktop resources, representatives from those disciplines should be core members of the center of excellence. Finally, organizations should create a category of adjunct members to supply subject-matter expertise as needed.

**Business Impact:** The importance of the shift to UCC services should not be underestimated. By the end of the decade, users will routinely employ an integrated set of collaboration tools, escalating to the highest value combination of interaction services — both inside and outside the firewall, and including fixed and wireless networks — for the business task at hand. Presence services will be a vital unifying tool, enabling users to right-click on a name and invoke a variety of collaboration mechanisms. Shared team spaces will provide temporary and persistent repositories for interactions.

The value to organizations will be realized in several ways. First will be the simplified and more-effective use of the increasingly broad range of collaboration options. Second will be the improved ability of individuals and groups to accelerate reactions to market events. Third will be the efficiency gains via the contextual embedding of communication services into applications at points where, for example, process disconnections occur and human intervention is necessary.

Identifying the value of UCC is easy. What organizations will struggle with is quantifying the benefits and calculating return on investments (ROIs). Companies may need to eschew traditional ROI mechanisms and look for alternative, less-quantifiable means to justify UCC investments, such as process cycle acceleration, faster problem remediation, increased information awareness, and inclusion of more internal and external resources in planning processes.

**Benefit Rating:** Transformational

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Adolescent

**Sample Vendors:** Alcatel-Lucent; Cisco Systems; IBM (Lotus); Microsoft; Nortel; Siemens Enterprise Communications

**Recommended Reading:**

"Key Issues for Unified Communications and Collaboration, 2008"

"The New Market for Unified Communications and Collaboration"

## **Mobile Social Networks**

**Analysis By:** Monica Basso

**Definition:** Mobile social networks are social networking environments that enable members of a community (real or virtual) to share personal information (such as preferences, interests and opinions), presence information (such as location and mood) and personal created content through mobile phones. Leading Internet social networks, such as Facebook and MySpace, have extended their services to mobile, but mobile social networks are defined by a range of pure-play providers that focus predominantly on the mobile channel, using technologies such as Short Message Server (SMS), Wireless Application Protocol (WAP), Java, Binary Runtime Environment for Wireless (BREW) and i-mode.

One category of companies partners with mobile carriers to give access to their mobile communities to the carrier's subscribers through a link in the default page on mobile phone browsers (for example, Jumbuck and AirG). Another category of companies works independently of carriers (for example, MocoSpace, Twitter and Gypsii). Most are federated with Web social networks, such as Facebook and MySpace.

**Position and Adoption Speed Justification:** Many startup companies around the world have launched social networking services for mobile users only. Behind such interest, the business opportunity is about addressing more than 3.3 billion and growing mobile phone users worldwide (a much bigger number than the Web users) with dedicated services that leverage mobile technologies such as location and presence. Mobile phones are also the predominant tool used by people to stay in touch with members of their real communities (through voice calls and SMSs).

Twitter is one of the simplest services. It enables users to micro-blog and send "tweets"— that is, updates on locations or mood — through textual SMS to regional gateway numbers. Tweets are delivered to other members that signed up to receive them and may show up in Web social networks (for example, Facebook).

Mobile social networks strongly using location and context include Gypsii, a service that enables mobile users to:

- Create and geotag personal content, such as picture and video, with their phones.
- Store them as "places" in the cloud and share them with members of their communities.
- Comment on and rate others' places.
- Mesh up with Web social networks, such as Facebook.

- Search the proximity of places and people.

Another example includes Twinkle, an extension of Twitter's client, with automatic geolocations to augment tweets with location and determine the proximity users. Bliin is a mobile social network that lets users update and post locations every 15 seconds, while the trail can be followed as dots on a map.

Other mobile social networks, such as Zyb, are centered on the mobile phone's contact list, which is used to create connections with family members, friends and co-workers. In addition, Zyb offers backup services for mobile phones to keep contacts and other data in the cloud, as well as store, share and comment on personal created content.

Beyond such examples, many companies offer some blend of services in this area (for example, myGamma, MocoSpace, Mobimii, Bluepulse, Funambol, Mobikade, Crush or Flush). Companies that build their business model exclusively around mobile carriers include AirG and Jumbuck. Many Web social networks, such as Facebook, MySpace and Bebo, and communities with social networking elements, such as YouTube and Flickr, have developed a mobile extension already. Specialized business-oriented social networks, such as LinkedIn and Plaxo, have a mobile interface. Finally, megaplayers in the Internet and mobile industry have launched different initiatives to enable social networking experiences on mobile devices. For example, Google bought Jaiku and has ongoing deals with Zingku (pure mobile play) for acquisition, Yahoo offers oneConnect, Microsoft offers Windows Live Spaces and Nokia offers Ovi.

Such a crowded market will go through a lot of competition in the next few months. Startup companies will fight to gain brand recognition and grow subscribers (perhaps through partnerships with bigger players), mostly on a regional or even local base. Someone will be acquired by larger companies, such as Internet portals, handset manufacturers and carriers. Through 2011, the pure-play mobile social networking market will consolidate around five players or less. Social networking companies will target a multichannel audience with context-oriented services. Internet companies will consolidate multichannel social networking services.

Adoption is expected to grow rapidly among mobile users. Different sources (for example, eMarketer) quote the total number of mobile social networking users worldwide to be around 82 million today (less than 3% of the total mobile phone users' base) and is expected to be more than 800 million by 2012 (about 20%).

**User Advice:** The growth of mobile social networking offers opportunities to organizations willing to innovate their communication styles with employees, clients, partners and their markets overall. However, they also introduce new risks (for example, IT security threats, legal liabilities and reputation damages) that must be carefully understood and managed before undertaking any initiative in this area. Specific advice to user organizations include:

**Employees:** Because workers are increasingly mobile (20% of the workforce), enterprises may try to exploit mobile social networking services (alone or integrated with other business applications) to support the mobile workforce more effectively (for example, letting employees collect and create geolocated information about customers to share across the organization).

**End users:** Enterprises facing consumers, specific groups of interests or professionals should consider exploiting mobile social networks to target these end users with personalized services (such as alerts) and advertisements.

**Citizens:** Government and safety organizations should consider how to leverage these networks in services to citizens (for example, alerts, emergency situations and political campaigns).

**Education:** Students, as digital natives, represent a big portion of most mobile social networks' installed bases. Universities and schools, in general, should evaluate how to exploit these new

communication capabilities (for example, to relay information in a timely manner, facilitate collaboration among students and survey students).

**Business Impact:** Mobile social networking is likely to have an impact across many vertical sectors, particularly where organizations deal with large client or user communities (such as education, healthcare and government sectors), or where organizations have larger workforces in sales or other client-facing activities (such as pharmaceutical, transportation and utility sectors).

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Bliin; Funambol; Gypsii; MocoSpace; Twitter; Zyb

## Social Search

**Analysis By:** Whit Andrews

**Definition:** Social search uses elements of user behavior, implicit and explicit, to improve results for searches. It also enables users to more-effectively disambiguate results from their queries. Examples include such steps as saving searches to shared folders, tagging of searches or documents to express what they are about for other users, and the use of implicit indicators of value such as saving documents as shared bookmarks or printing documents for later use.

**Position and Adoption Speed Justification:** Social search is an element of Internet search behaviors and provides significant value to Web users. Consumerist expectations will drive it quickly into the enterprise where it will augment, but not transform, search capabilities. The ability to use social search at Web sites such as Amazon (where tagging and search recommendations are used) will drive users to demand it.

**User Advice:** Include elements of social search in your projects, but do not expect it to dramatically improve results. Disambiguation will benefit from social search use as users scrutinize colleagues' and fellow searchers' results to establish meanings and relationships.

**Business Impact:** Enterprise workers and customers will get better results faster through the use of social search.

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Adolescent

**Sample Vendors:** BEA Systems-Plumtree Software; Digg; Endeca; Furl; Microsoft; Vivisimo; Yahoo

### **Recommended Reading:**

"What Social Search Means to Your Enterprise"

"Injecting Web 2.0 Innovation Into Enterprise Search"

## Expertise Location and Management

**Analysis By:** Michael Maoz

**Definition:** Expertise location and management (ELM) involves the identification of human expertise, determining the status of that resource and integrating that person into the interaction process. It offers ways to maintain representations in-depth of skills and in geographic locations, as well as other parameters relevant to the use of the expertise.

**Position and Adoption Speed Justification:** ELM requirements have changed from the traditional "find the resources with the correct skills" to one in which the resources must be integrated into dynamic customer interaction processes. This occurs in real time, in one of several possible interaction channels. There is increased interest in automatic identification and skills capture, because of new ways of building dynamic user profiles, based on "attention metadata" — that is, by looking at what users are actually doing.

Social networking trends support this advance. E-mail analysis, social bookmarks and tagging, for example, have valuable side effects in capturing information about an individual's current interests or expertise. This information has uses beyond expertise location — for example, in identifying "like minded" individuals — which promotes collaboration in general. Although some of the technology for ELM is mature, new vendors (such as Cisco) with products that tap more deeply and broadly into user activities are creating new expectations and awareness of this technology, which is adding to the "hype."

**User Advice:** ELM is most successful when it targets the solving of business problems that are difficult to articulate or communicate explicitly and involve highly skilled people. In customer service, Web site users may encounter situations in which they need human assistance for a brief part of the overall interaction or in a contact center, a service agent may need the intercession of an expert to supply an answer or the agent may need to transfer the call to an expert.

Dynamic people profiles and searches are increasingly seen as integral components of a support environment that encourages unplanned collaboration and informal interactions as an effective way to solve business problems. ELM increases productivity and organizational success by identifying and locating resources in globally dispersed and increasingly virtual organizations. It's important to identify activities that would benefit from the easy identification of experts or, more generally, the ability to search for people according to their interests or experience — and to consider deploying the relevant technology to do so.

The privacy implications of this technology should be considered carefully. However, in all cases, this technology should be deployed with care. There should be adequate training to prevent misuse and to allay concerns over privacy violations.

**Business Impact:** Expertise location can improve effectiveness in contact centers, Web sites and kiosks for customer problem resolution, as well as relationship and community building.

**Benefit Rating:** High

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Adolescent

**Sample Vendors:** AskMe; Cisco; IBM; SAP; Visible Path; XpertUniverse

## Prediction Markets

**Analysis By:** Matthew Cain; Nikos Drakos

**Definition:** Prediction markets are betting mechanisms established to forecast the outcome of an ongoing issue of contention, such as quarterly sales or product delivery dates. They can also be used to prioritize ideas (users bet on which ideas have the greatest chance of success) or to

assess risk (users bet on which paths carry the least risk). While popular on the Web for predicting election results (among other things), and popular among gamblers (will an EU nation boycott the Olympics, for example), predictive markets are now entering the business world. Users are typically given a finite amount of money (often play money) and they buy shares in the outcome they believe most likely. Outcomes that attract the most money create a forecast based on a consensus opinion which, in many cases, has proven more accurate than traditional means of forecasting.

**Position and Adoption Speed Justification:** While the value of predictive markets are well-codified (used in the proper circumstances), mainstream awareness of the technology is minimal. Larger organizations, mostly technology and pharmaceutical firms, were the first to adopt the technology, but it has been slow to spread to other vertical markets. Predictive markets are positioned on the upper part of the Trough of Disillusionment because early users, who have begun to overestimate their accuracy and overall usefulness, are now somewhat disillusioned with the technology.

**User Advice:** Organizations looking to improve forecasting of contentious issues where multiple users have valid insight into the issue are likely to benefit from investments in predictive markets. A learning curve will be in effect as organizations determine which circumstances and participants are most likely to result in accurate forecasts. Organizations will also strive to find the most appropriate incentives to yield the most accurate forecasts: one theory, for example, holds that use of fake money results in inferior results compared to real money. Besides numerous premises-based commercial (and open-source) vendors, there are multiple suppliers that offer hosted predictive markets, enabling exposure to the technology for minimal investment.

**Business Impact:** Predictive markets can help more-accurately model outcomes for sales efforts, product delivery dates, product uptake rates, manufacturing capacity needs, product ideas, marketing campaigns and competitive actions, for example. It is unlikely to be of help when the number of knowledgeable betters is limited, when outcomes have a high degree of predictability, or when the outcome can arbitrarily be determined by a small number of people. Prediction markets are most valuable when they are used to rationalize a large number of disparate viewpoints. Potential users should start with pilot programs so they can compare the results with traditional forecasting mechanisms.

**Benefit Rating:** Moderate

**Market Penetration:** Less than 1% of target audience

**Maturity:** Emerging

**Sample Vendors:** ConsensusPoint; Gexid; IdeaFutures; Inkling; Nosco; Pro:kons; Xpree

## Social Computing Platforms

**Analysis By:** Ray Valdes

**Definition:** A social computing platform, sometimes called social operating system, social application server or simply social platform, enables developers to build a range of social applications. A social platform is distinguished from a social application in that a social application serves one set of cohesive needs for one set of related markets, while a platform is more open-ended and allows solutions to be built that the platform's creators never envisioned. In the evolving world of the Web, many sites and destinations are becoming social sites, and most social sites are evolving into social platforms.

Examples of social platforms include all the major social networking sites that support an application programming interface (API), such as Facebook, MySpace, Orkut, LinkedIn, Bebo and

Hi5. These platforms provide APIs that enable external developers to extend the capabilities of the base platform and add new components of business logic, new connections to data sources, new gestures in the social vocabulary and new aspects to the base relationships between entities (that is, people, connections, events, groups, shared items and messages). These social destinations are only one type of social platform.

Another type of social platform is sometimes called "white label" or "do-it-yourself" social networking platforms that, in effect, are empty containers for customizable social sites. Enterprises fill these containers with their branding and their users to get fully functional, populated social sites. Representative examples of these social platforms are Affinity Circles, Awareness, BDG, Crowd Factory, Elgg Spaces, Flux, Grouply, Grou.ps, HiveLive, Jive Software, KickApps, Leverage, Me.com, Mzinga, Ning, Soceo, Telligent, Web Crossing, Wetpaint and Userplane. Indicative of a certain level of maturity in the market is the emerging trend of open-source social platforms, pioneered by Ringside Networks, and now followed by Facebook's fbOpen.

**Position and Adoption Speed Justification:** The Facebook platform was launched in May 2007. Since that time, it has attracted 400,000 developers, who have built 24,000 applications that have been installed more than 1 billion times by the Facebook user population of 80 million active users. Other platforms — such as those conforming to the Google-led Open Social specification (for example, MySpace, LinkedIn, Bebo and Hi5) — are still attracting developers and users to those embedded applications. This means that the phenomenon is no longer emerging; it is adolescent.

In the white-label social networking category, Ning claims more than 230,000 social networks created, with a total population of about 4 million unique visitors. Ning recently raised \$60 million in venture funding at a \$500 million valuation.

However, it will take several years for the social platform concept to evolve. White-label social network sites reach a small number of users per site, on average. On the destination sites, such as Facebook, that have millions of users, the applications are quite modest. Almost all custom applications built on the platform are narrow-scope "social widgets," rather than more-substantial embodiments of business logic. The APIs have limitations with regard to dynamic updates of components, intermodule communications, fine-grained control over information disclosure and interoperability with other sources of social data.

**User Advice:** Consider how adding a social dimension to your application will enhance its value to users and to your organization.

Consider an existing social platform, such as Facebook, or one conforming to the Open Social specification. Alternatively, consider a make-it-yourself white-label social platform, such as Ning.

Consider solutions that leverage existing social data models, especially those that support fluid social interactions spanning multiple organizational boundaries.

**Business Impact:** Social platforms can enable organizations to cultivate and leverage communities of stakeholders: users, purchasers, partners developers and influencers. Depending on the industry sector, this can be a source of sustainable competitive advantage.

**Benefit Rating:** Moderate

**Market Penetration:** 20% to 50% of target audience

**Maturity:** Adolescent

**Sample Vendors:** Bebo; Facebook; Google Orkut; Hi5; LinkedIn; MySpace; Ning; Ringside Networks; salesforce.com

**Recommended Reading:** "Facebook and the Emerging Social Platform Wars"

## Sliding Into the Trough

### Social Bookmarking

**Analysis By:** Nikos Drakos

**Definition:** The term "social bookmarking" describes a mechanism for aggregating users' collections of links to Web or intranet resources. These collections are usually labeled with "tags" chosen freely by each user. A social bookmarking service allows users to share each other's bookmark collections. It can also help them identify popular Web resources and tags, and determine the degree of connectedness between information resources and users, and between users.

**Position and Adoption Speed Justification:** Social bookmarking services for consumers are popular on the Internet — examples are del.icio.us, Furl, StumbleUpon, Google Bookmarks, Simpy, Diigo and BlinkList. But the use of similar services in business environments is less common. This is partly because social bookmarking technology for private use has not been available long, partly because of a lack of understanding of its relevance and value in a business context, and partly because of the state of enterprise intranets and portals. Gartner expects this situation to change as the benefits of internal bookmarking and tagging are better understood and as obstacles to their use are removed.

**User Advice:** On balance, most organizations will benefit from careful deployments of social bookmarking technology, even on a small scale. However, some benefits will materialize only once "critical mass" has been reached — in common with other mechanisms that benefit from network effects in which the quality of information improves as usage increases. We have five recommendations for business managers:

- Understand what social bookmarking (and tagging) is, and how it works, by experimenting with one of the consumer services. Although there are security and confidentiality risks, they are relatively slight, and there could be immediate benefits for your business.
- Identify business activities that could benefit from social bookmarking's ability to connect people and to organize information.
- Assess the degree to which cultural issues, privacy concerns, the state of your intranet or portal, and any other constraints might inhibit successful deployment.
- Find out about the plans of your strategic workplace technology vendors to offer social bookmarking capabilities.
- Start with small-scale deployments with a focus on the benefits of keeping in touch with other people, but recognize that the benefits of "findability" and collaborative filtering can only be achieved with widespread participation.

**Business Impact:** Social bookmarking can help to create and organize a single "information space" from resources in heterogeneous repositories, to promote information discovery, support communities and social networks, and make it easier to locate expertise. It is particularly useful for activities in which individuals have to deal with a mass of poorly organized information (inside or outside their organization), and where unplanned contact and collaboration could aid decision-

making and problem-solving. These activities include research and development, innovation, post-merger team-building and networking, and expertise location for service delivery.

**Benefit Rating:** High

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Emerging

**Sample Vendors:** Cogenz; Connectbeam; IBM; Oracle (BEA)

**Recommended Reading:**

"Top Benefits and Drawbacks of Enterprise Social Bookmarking and Tagging"

"Case Study: Using Social Bookmarks to Improve Collaboration"

## Open-Source Social Software

**Analysis By:** Nikos Drakos

**Definition:** Open-source social software is about the tools that encourage, capture and organize open and freeform interaction among employees, customers and partners — which are available with an open-source license.

**Position and Adoption Speed Justification:** Some of the more mature open-source social software products are finding their way into enterprises as part of pilot implementations, user-initiated deployments or early stage tactical deployments. Best-of-breed open-source products that offer specific functionality tend to be at least as mature as their proprietary equivalents; and at least some of them are very visible on the public Internet where they power high traffic sites. Other, generally applicable open-source benefits such as flexibility and low acquisition costs add to the attraction of open-source social software products.

Although several open-source products enjoy some attention from early adopters, there are important barriers to their broader use and acceptance in mainstream organizations. Misunderstandings about open-source software in general and, in particular, interpretation of the conditions of different licenses; the lack of an accountable and dependable provider; and the extra responsibility for evaluation, deployment, support and general change management, are all potential barriers to some degree. In the case of open-source social software there is another, perhaps more significant, factor that may limit the relevance of many best-of-breed but stand-alone products. Demand for products with more comprehensive functionality is likely to increase, making best-of-breed products less relevant.

Some of the most prominent examples we have seen being used within an organization include wiki-centric products such as MediaWiki, Socialtext, Twiki and Mindtouch, as well as blog-centric products such as Wordpress, Movable Type, Apache Roller and Serendipity. In most cases these products defy clean categorization and are expanding into adjacent areas either through plug-ins and extensions or by enhancements to the core product. Moving toward the same goal, just from a different direction, are a number of open-source content management products, portals, community support platforms or Web application frameworks that have been layering social software functionality on top of the core product. Such functionality includes blogs, wikis, profile and membership management, social tagging, friend lists and so on. Drupal, Joomla, Plone, Liferay and Alfresco exemplify this trend.

**User Advice:** Open-source social software products offer an opportunity for early and low-cost experimentation, or for non-mission-critical deployments to test the business value of support for social interactions and to understand its impact and relevance for different business activities.

Systematic deployments of open-source social software are only appropriate for organizations with a strong technical capability that includes skills and change management processes that deal with evaluation, ongoing support, maintenance and direct engagement with the developer communities. Treat community-supported applications with no commercial support as middle options between build and buy. The critical factors to consider when making decisions about enterprise use of open-source social software in the next three years are likely to be internal technical capability, commercial support, and the availability of suites that combine broader capabilities.

**Business Impact:** Interest in open-source social software is driven by the same objectives as those behind social software in general — that is improving connectedness, promoting unplanned collaboration or capturing informal knowledge. One difference, however, is that the low acquisition costs and the "instant gratification" properties of open source are accelerating experimentation and early deployments.

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Adolescent

**Sample Vendors:** Acquia; Automattic; Barnraiser; MediaWiki; MindTouch; Plone; Ringside Networks; Serendipity; Six Apart; Socialtext; Twiki.net

**Recommended Reading:** "Open Source in Social Computing, 2008"

## Public Virtual Worlds

**Analysis By:** Steve Prentice

**Definition:** A public virtual world is an online (and hosted on a publicly accessible infrastructure) networked virtual environment in which participants are immersed in a 3-D representation of a virtual space and interact with other participants through an avatar — a representation of themselves in the virtual world.

**Position and Adoption Speed Justification:** The growth of publicly accessible virtual worlds — such as Second Life (from Linden Lab), There (built by Makena Technologies), Cyworld, Habbo (owned and operated by Sulake) and many others — has been rapid, with initial sign-ups increasing exponentially, although there is a steep dropout rate. Media attention is high, and significant numbers of enterprises are building a presence to take advantage of a potentially significant new channel and market. Second Life remains the primary target for mainstream corporate activity, but availability and security issues remain, and resident behavior remains somewhat negative toward enterprises. Considerable skepticism still exists among business and IT leaders as to the value of the consumer-led phenomenon of publicly accessible virtual worlds, which will further accelerate the move into the Trough of Disillusionment.

In contrast, public virtual worlds launched as direct media-related tie-ins, such as Virtual Hills and similar worlds operated on behalf of MTV, were developed to support physical products (especially toys) such as those from Mattel. Barbie Girls and virtual worlds targeted generally at subteens (Disney's Club Penguin, for example) are growing rapidly, with new offerings launched every week. The success of these tightly focused environments contrasts starkly with the slow growth and stagnation of virtual worlds targeted at older audiences or at a more general (that is, less focused) "social networking" function.

**User Advice:** The value of virtual worlds for enterprises lies primarily in their ability to deliver a rich and immersive collaborative environment. However, security and reliability concerns make

public worlds less desirable for use inside enterprises, where sensitive discussions may occur. Enterprises should investigate the possible use of private worlds in this context, but they should continue to investigate and experiment with public worlds as valuable learning environments and to better understand the dynamics and values of these rapidly evolving and emergent environments. In the longer term, virtual worlds will emerge as important media channels and community access mechanisms for enterprises seeking to tap into the broader community and to engage the community actively in their business models.

Currently, effective business models and a critical mass of committed users still are emerging, although some virtual worlds targeted at specific and well-defined niche audiences are becoming well-established. Enterprises should avoid heavy investments and should rely on in-house expertise on an as-needed basis or on smaller subcontractors.

Enterprises looking to support broadcast media or physical products (especially those targeted at preteen and early teen markets) may find virtual worlds a more immediately useful media channel and should closely evaluate the demographics of virtual worlds and the economics of hosting their own virtual environment as a valuable component of a multichannel media strategy.

**Business Impact:** In the short term, enterprises should use public virtual worlds as "sandbox environments" and for community building. In the long term, public virtual worlds represent important media channels to support and build broader communities of interest.

**Benefit Rating:** Transformational

**Market Penetration:** One % to 5 % of target audience

**Maturity:** Emerging

**Sample Vendors:** Croquet Consortium; Linden Lab; Makena Technologies; Sulake; There

**Recommended Reading:**

"The Five Laws of Virtual Worlds"

"How to Justify Enterprise Investment in Virtual Worlds"

"Tactical Guideline: Six Essential Tips for Getting Started With Virtual Environments"

"Three Challenges That Enterprises Face in Using Second Life"

## Immersive Learning Environments

**Analysis By:** Carol Rozwell

**Definition:** Immersive learning environments (ILEs) are learning situations that are constructed using a variety of techniques and software tools including game-based learning, simulation-based learning and virtual worlds. ILEs are distinguished from other learning methods by the ability to simulate realistic scenarios and environments that give learners the opportunity to practice skills and interact with other learners.

**Position and Adoption Speed Justification:** The factors that have, in the past, inhibited the adoption of ILEs such as cost, complexity and dearth of vendors have largely been addressed. Early adopters of ILEs, such as the military and universities, have contributed their knowledge which simplifies the creation of realistic models. Meanwhile, more vendors have entered the market which reduces set-up and implementation costs. The growth of open virtual environments such as Second Life has exposed large numbers of people to the ILE concept and lessened user intimidation.

**User Advice:** Evaluate the enterprise's receptivity to using ILEs before making significant investments in courseware development. Ensure that an ILE is the most appropriate mechanism to deliver the learning content. Monitor the results of using ILEs. Many organizations found that while they initially implemented ILEs to reduce travel costs, the more significant benefits accrued from the ability to let learners test options in a non-threatening environment and interact with peers. Those organizations that do not have experience of creating ILEs should consider outsourcing their first few projects until they gain the expertise to create their own.

**Business Impact:** Enterprises are finding that using ILEs results in a more complete skills transfer and better concept retention because the learning is contextually based. Learners engage in realistic scenarios, can test different options to see which work best, and collaborate with colleagues.

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Adolescent

**Sample Vendors:** Forterra Systems; IBM; Microsoft; ProtonMedia; Qwaq; Second Life

**Recommended Reading:**

"Tactical Guideline: Six Essential Tips for Getting Started With Virtual Environments"

"Three Challenges That Enterprises Face in Using Second Life"

"Microsoft ESP Marks Shift to Richer Simulation Platforms"

## **Folksonomies/Social Tagging**

**Analysis By:** Rita E. Knox; Whit Andrews

**Definition:** "Folksonomies" (the combination of "folks" and "taxonomies") are created with social tagging or user-defined metadata. End users (laypersons) don't explicitly create folksonomies; rather, they result from bottom-up categorization using individually developed or selected keywords. There's rarely a prescribed purpose, but a folksonomy evolves when many users create or store content at a particular site and then identify what they think the content is about. "Tag clouds" pinpoint various identifiers and the frequency of use on a folksonomy site. This type of grass-roots community classification (similar to other social networking approaches, such as blogs and wikis) is subject to vandalism and manipulation; nevertheless, it's a fine example of collective intelligence.

Don't confuse folksonomies with taxonomies. Folksonomies structure content via user tags; taxonomies are classifications defined by methods that don't necessarily include user-generated tags and rarely are viewed as similar.

**Position and Adoption Speed Justification:** Folksonomies are no longer simply consumer applications; rather, they're increasingly being used as corporate communication tools and as locations where users collect their bookmarks. Public folksonomies include Amazon.com (customer recommendation), del.icio.us (bookmark management), doof (social gaming), FaceTag (people search), Furl (Web site management), Flickr (photo management), Technorati (blog search), 43 Things (goal sharing), CiteULike (academic papers), craigslist (online communities), LinkedIn (job networking) and Connotea (reference management). Many knowledge workers are using folksonomies to support their work.

**User Advice:** By definition, folksonomies fall outside formal manipulation or control. They may prove useful in acquiring and sharing corporate knowledge; formally, however, they can't be expected to do so. Setting up examples on a corporate site is one way to explore their usefulness. Folksonomies aren't a commercial technology, but they've been proposed as an approach to acquiring and documenting corporate knowledge. All companies are interested in successful methods of documenting such information, so they should investigate folksonomies as a potentially useful match to their corporate personalities.

**Business Impact:** As a form of personal knowledge management or personal productivity tools, folksonomies may make individuals more productive and may translate into enterprise productivity, but the causal relationship will be difficult to prove and the impact difficult to measure. However, folksonomies *could* feed improved search capabilities or be used as information services to support market intelligence (for example, who tags our products on Amazon.com and how?).

**Benefit Rating:** Moderate

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Adolescent

**Sample Vendors:** Amazon.com; craigslist; CiteULike; Connotea; del.icio.us; doof; Flickr; Furl; LinkedIn; MySpace; Technorati

**Recommended Reading:**

"Use Content Analytics to Extract Meaning"

"Finding and Exploiting Value in Semantic Technologies on the Web"

"What Does Web 2.0 Mean to Government?"

## Corporate Blogging

**Analysis By:** Ray Valdes

**Definition:** Corporate weblogging ("blogging") is the use of online journals by corporate employees, individually or in a group, to further company goals.

**Position and Adoption Speed Justification:** Corporate blogging hype peaked in 2005. Many organizations in the technology sector have been doing corporate blogging for three to five years, sometimes on a large scale. For example, at Microsoft, there are more than 4,000 employee blogs hosted on company servers. IBM, Oracle and SAP have large populations of bloggers. Sun is well-known in the industry for its prolific and candid CEO blogger, Jonathan Schwartz. For any small technology-centric venture that is seeking to gain visibility, having a corporate presence in the blogosphere (the world of blogs) has been a requirement for several years. It is now common practice for Web 2.0 powerhouses such as Google and Facebook to launch major corporate initiatives, not with a press conference or conference-based launch event, but simply with a late-night blog entry.

However, although corporate blogging is now the norm in certain sectors of technology, media, consumer goods and politics, outside of these sectors, it is more the exception than the rule. Industries such as pharmaceuticals, financial services, telecommunications and energy, that are historically aggressive with regard to technology adoption, have been slow to adopt blogging, even though the technology is trivial by comparison to their IT systems. This has to do with differences in organizational culture as well as constraints from operating in heavily regulated

business environments. A May 2008 survey by Fortune magazine shows that only 12% of Fortune 500 firms have corporate blogs.

Disappointments have occurred, primarily dashed expectations that were overoptimistic at the outset, due to a lack of knowledge of how to work this new communication medium. There have been almost no spectacular failures, as some feared (such as a massive release of confidential information that has a negative effect on the company, which would not have occurred otherwise). As with personal blogs, the primary failure mode is a slow fade — that is, as initial enthusiasm fades, the blog content becomes stagnant and whatever readership was assembled dissipates. For the few blogs that enjoy strong growth, a positive feedback loop results, as reader interest spurs the blogger to do more.

**User Advice:** Consider corporate blogs as part of the standard repertoire of corporate communication tools and the emerging portfolio of social media tools. Blogs do not replace other media, but can reinforce or redirect messages in other channels. Blogs enable an organization to mount a rapid public response to fast-changing events and, depending on the circumstances, can provide important "spin" on messages in mass media.

The blog medium has immediacy, has a potentially large reach, is low-cost and offers the opportunity for the bidirectional transfer of information (that is, a conversation with the market). The main risk in corporate blogging is failing to engage in this new medium, in the sense of not knowing what the blogosphere is saying about your organization and not knowing effective ways to communicate a response.

Understand how blogs fit into the repertoire of social media. That includes micro-blogging (Twitter), videoblogging (Seesmic), social networking (Facebook, LinkedIn, Bebo) and social content aggregators (FriendFeed, Chirp).

Organizations that fail to engage in social media can suffer a competitive disadvantage by becoming mute or muffled in an arena where competitors and other opposition forces are loud and clear. Begin your engagement by listening to the blogosphere to understand players, positions, etiquette and styles of interaction. Reduce expectations because, although blogging is easy to get into in terms of initial effort and technical skill requirements, it is hard to execute effectively because it requires long-term commitment, consistency and authenticity — in addition to skill, talent and experience in this new communication medium.

Ease into blogging by using a hosted service, rather than purchasing or installing software on your servers. View blogs not just as external-facing channels for a single senior manager or an anonymous corporate communications function, but also as team blogs clustered around a product or business unit, and internal-facing blogs for supporting company initiatives.

**Business Impact:** Corporate blogging can be invaluable in enabling an organization to reach the broad public and opinion makers, and in enabling management and employees to communicate regarding internal corporate initiatives. Additional impact will be in competitive intelligence, customer support and recruiting.

**Benefit Rating:** Moderate

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Early mainstream

**Sample Vendors:** Awareness (formerly iUpload); Blogtronix; Google; Microsoft; Nucleus CMS; pMachine; Six Apart; Telligent; Textpattern; Traction Software; WordPress; Yahoo

## Idea Management

**Analysis By:** Carol Rozwell; Kathy Harris

**Definition:** Idea management is a structured process of generating, capturing, discussing and developing, organizing, evaluating and prioritizing valuable insight or alternative thinking that would otherwise not have emerged through normal processes. Idea management tools provide community support (to build out promising ideas), administrative support (for capturing, organizing and tracking ideas) and analytical support (for aggregating, refining, prioritizing and measuring) for the leaders and participants of innovation or ideation programs. These tools are typically used for focused innovation campaigns or events, but most also enable continuous idea generation.

**Position and Adoption Speed Justification:** Companies in a wide variety of industries are turning to idea management as a way to bolster innovation that drives the sales of existing products, creates new opportunities to increase revenue, or radically changes process or cost structure. Industries that emphasize new product development were early adopters of idea management tools. In 2008, service industries are increasingly adopting innovation and idea management practices.

**User Advice:** Examples of failed innovation programs outnumber successful ones. Organizations establish innovation programs with great fanfare but then have difficulty sustaining momentum beyond two years. Users should address the organizational and cultural issues of innovation management and should identify the participants and processes envisioned for idea generation programs before attempting to select an idea management application. For those enterprises that plan to use idea management tools as a front end to new product development, they should also ensure those tools can be integrated with product life cycle and project management tools.

**Business Impact:** Idea management tools are used to run events or campaigns implemented under the auspices of innovation programs, or used in individual departments looking for product and process innovations. Idea management tools can also enable organizations to segregate sources of ideas (such as employee versus customer ideas), separate types of ideas (such as product versus process ideas), and even aggregate multiple ideas. The proper handling of ideas is one of the most critical aspects of successful innovation programs. Idea management tools facilitate the process of publicizing campaigns and events so they get a wide range of input, evaluating and building on the ideas submitted, acknowledging the submissions and archiving valuable information.

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Adolescent

**Sample Vendors:** Brainbank; Brightidea; General Ideas; Idea Champions; Imaginatik; MindMatters; Sopheon; Spigit

**Recommended Reading:** "Five Pitfalls of Ideation and Best Practices for Avoiding Them"

## RSS in the Enterprise

**Analysis By:** Ray Valdes

**Definition:** Really Simple Syndication (RSS) is a lightweight data format that enables Web sites and Web applications to distribute content to other systems or people. RSS is used in a range of scenarios in different industry sectors, at various levels of maturity. In the consumer sector, RSS

use is mature and stable in terms of enabling the syndication of news and weblog ("blog") content. For example, there are more than 100 million blogs worldwide, the vast majority of which are available not just as regular Web pages but also as RSS feeds. The RSS capability is an automatic benefit of being hosted on full-strength blogging platforms (such as WordPress, Google Blogspot, Six Apart TypePad, Yahoo 360 and Microsoft Spaces), which offer RSS feeds as a standard feature.

In contrast to the widespread use of RSS in the consumer sector, RSS is evolving more slowly in the enterprise sector. Corporate blogging technology is widely available but less-widely used. Beyond use of RSS to syndicate blog content, there are emerging uses in business applications and custom-built solutions. RSS is an essential feature of corporate blogging platforms, such as Awareness (formerly iUpload), Blogtronix, Jive Software, Leverage, Six Apart and WordPress. The use of RSS for blogging and news syndication is mature, but it is still in the early stage in terms of enabling "poor man's data integration" between corporate information systems, such as document management, enterprise reporting, business applications and data warehouse applications. Most vendors of this class of enterprise systems have added or have announced support for RSS, but adoption among end-user organizations is early.

RSS continues to evolve in terms of use scenarios. In the consumer sector, there is recent growth of RSS as an enabler for Web 2.0 mashups, which combine data from multiple, distinct Web sites. This trend includes consumer-oriented mashup tools and platforms, such as Dapper, Yahoo Pipes and Microsoft Popfly. Following the consumer-oriented offerings, there will be products and services oriented toward the enterprise sector from vendors such as Attensa, KnowNow, Kapow Technologies, NewsGator and RSSBus. These are embryonic uses of an otherwise mature technology.

**Position and Adoption Speed Justification:** RSS in the enterprise has gone from emergent to widespread use. The basic content syndication capability is being deployed, or is on the near-term road map, for most enterprise systems that are involved with creating, distributing or publishing unstructured information (such as enterprise portals, content management systems, collaboration suites and enterprise reporting systems). RSS capabilities are part of the operating system environment (Windows Vista RSS platform) and most Web browsers (such as Internet Explorer, Firefox, Apple Safari and Opera). However, there is a difference between RSS in the enterprise and "enterprise-class RSS." The latter refers to more-intensive use of RSS, such as in mission-critical, transactional or structured information systems. In these areas, RSS is still an emerging technology. Future growth of enterprise-class RSS deployment depends on technologies layered on top of or extending RSS, for secure delivery and receipt of messages, proxying, caching, monitoring and so on.

**User Advice:** Consider using the RSS format to distribute information that is "nice to know," rather than "need to know." RSS is not widely used for scenarios that involve large volumes of data, highly structured data and transactional processes, or scenarios that require the secure and reliable transfer of information to specific authorized segments of users. Extensions to RSS, such as Simple Sharing Extension (SSE) and Simple List Extension (SLE), were proposed in 2005 as mechanisms that could support a broader variety of scenarios, but they are not in wide use. Microsoft, which proposed the SSE and SLE extensions, is moving forward with a more ambitious initiative known as Live Mesh, in which RSS plays a small role out of a much broader scope. Enterprise architects should track the evolution of these platform-oriented data distribution and synchronization systems, but should view these as beta-stage systems in the early phase of their maturity.

**Business Impact:** RSS will enhance the interoperation of content-centric systems and applications because it is simple and easy to add to existing systems. Established information systems will be able to reach a wider range of users in various circumstances, thereby enhancing

the value of content. New content-centric applications and processes will emerge to leverage and add value to these content flows.

**Benefit Rating:** Moderate

**Market Penetration:** 20% to 50% of target audience

**Maturity:** Early mainstream

**Sample Vendors:** Attensa; Dapper; FeedBurner; Google; KnowNow; Microsoft; NewsGator Technologies; RSSBus; Six Apart; Yahoo

**Recommended Reading:** "RSS Is a Case Study in Unintended Consequences"

## Social Network Analysis

**Analysis By:** Carol Rozwell

**Definition:** Social network analysis (SNA) is a technique for analyzing patterns of relationships among people in groups, and the roles that individuals play in an informal network. It involves collecting data from multiple sources, analyzing the data to identify relationships and mining it for new information. Organizational network analysis (ONA) is one form of SNA. ONA is typically used to study the informal social networks of groups working in the same enterprise.

**Position and Adoption Speed Justification:** SNA is used to analyze organizations and other explicitly collaborative environments (for example, R&D sources, organization charts and collaboration processes). It will increasingly be used to mine data from communities of interest (for example, MySpace, Flickr or del.icio.us) — that is, usually well-known "folksonomy" sources in which users' social tagging content (via "age," "gender" or "blurb") provides the metadata for analysis, which identifies relationships. Such sites create social network content, but they aren't SNA applications. The sites serve as models for creating content in the business world, accelerating the development of social network information, and spurring the development of tools that can mine such data. In addition, it can be used to establish perspectives on user behavior in enterprises where linkage is explicit in communications, such as e-mail or instant messaging. Products are now commercially available that simplify the creation of network diagrams. Tools that provide this type of analysis on relationships, interactions and the behavior of networks can be instrumental in diagnosing a variety of workplace issues. Adoption of ONA has been hampered by the perspective that it is highly conceptual and that the information collected is difficult to translate into pragmatic actions.

**User Advice:** Traditional users of SNA in enterprises are groups that need to collaborate. When the hidden patterns of information sharing and interaction can be made explicit, the patterns can be studied to make improvements. Additionally, SNA can be used to target key opinion leaders and to enable a more-effective dissemination of product information. However, users should be mindful of privacy laws and the concerns of employees who may feel threatened.

**Business Impact:** SNA can be used by organizations to understand the flow of information and knowledge, to identify the key knowledge brokers and to highlight opportunities for increased knowledge flow to improve performance. Companies use organizational network maps to help them manage change, to facilitate mergers and reorganizations, to enhance innovation, to spot talent and to plan for succession. SNA can be used in the consumer space to identify target markets, create successful project teams and serendipitously identify unvoiced conclusions. It can also be used to detect inexplicit connections.

**Benefit Rating:** Moderate

**Market Penetration:** 1% to 5% of target audience

**Maturity:** Adolescent

**Sample Vendors:** Analytic Technologies; IBM; Orgnet.com; Trampoline Systems; Visible Path

**Recommended Reading:**

"Findings: Social Network Analysis Is Coming Into the Limelight"

"Cool Vendors in Collaboration and Social Software, 2008"

## Wikis

**Analysis By:** Nikos Drakos; Whit Andrews; Rita E. Knox

**Definition:** A wiki is a simple collaborative system for creating and maintaining hyperlinked collections of Web pages. A wiki usually enables users to add or change pages "in context" without having to worry about where and how the content is physically stored. A wiki is, by design, an information synthesis tool that simplifies the modification and reorganization of existing information and encourages what is often referred to as "wiki gardening." This is the process of incrementally editing a wiki space to preserve continuity, make additional connections and links, and generally to clean it up. Key enabling functions are:

- User-friendly "click to edit" features for any wiki page that invites users to create, link, edit or reorganize the information they see on the screen, without having to understand the physical file organization.
- The ability to track changes, to compare different versions and to revert to a previous version makes it easier to make changes in the knowledge that any mistakes can be reversed easily.
- Static Web addresses to any wiki page or even to any component of a wiki page (such as a paragraph). This means it's easier to organize related ideas using Web links, not only inside a wiki but also between a wiki and other, Web-addressable sources of information (for example, other wikis, the intranet or the public Internet).

**Position and Adoption Speed Justification:** Wikis are now available from commercial vendors, in addition to many open-source products, and are becoming available from established enterprise vendors. Wikipedia is the best-known publicly available wiki, and it has raised awareness to the point where users often demand wiki-style collaboration support from their IT departments. Although the wiki functionality is still at the core of many products, it is beginning to defy clean categorization as it expands into adjacent areas either through plug-ins and extensions or by enhancements to the core product that typically includes blogs, discussions, user profiles and tagging.

**User Advice:** Understand that there are advantages to using a wiki over a conventional repository-style collaboration system, and be receptive to users who will argue that a wiki will improve team collaboration. Now is the time to move from pilots to more systematic deployments, as appropriate, and to evaluate the suitability of wikis in different collaboration scenarios, if this hasn't been done already.

**Business Impact:** Wiki-style information creation and sharing has significant advantages over traditional collaboration environments in terms of improved transparency, usability and information reuse. Like the public Web, it encourages the creation of a "web of interrelated information," where it is just as easy to create internal cross-references as it is to reference external resources. Within businesses, wikis are used as informal repositories for maintaining

technical documentation, client communication, issue tracking, e-learning and training, general information sharing and knowledge management. They are also used to support communities of practice or communities of interest, product development and idea exploration.

**Benefit Rating:** Moderate

**Market Penetration:** 5% to 20% of target audience

**Maturity:** Early mainstream

**Sample Vendors:** Atlassian; GroveSite; IBM; Jive Software; MediaWiki; Microsoft; MindTouch; Socialtext; TWiki

**Recommended Reading:** "A Blend of Wikis, Blogs and Discussion Forums Can Support Collaborative Business Activities"

## Climbing the Slope

### Blogs

**Analysis By:** Michael McGuire

**Definition:** A blog, which derives from the term "weblog," is a Web site designed to make it easy for users to create entries in chronological order. The entries are then displayed in reverse chronological order (most recent first) and are generally archived on a periodic basis. Blogs are mostly used to express opinions on topical events such as sports, music, fashion or politics. They may be maintained by an individual, group or organization.

**Position and Adoption Speed Justification:** Blogs are pervasive. Google, Yahoo, Six Apart and MSN, among others, have blogging platforms, and publishers have begun to monetize blogs. While some press reports have characterized the blogging trend as having peaked, this perspective ignores the number of new users coming on the Web every day, more than a few of which will be utilizing blogs. It is now commonplace for CEOs and company executives to post regularly to their blogs; companies such as Yahoo or Google frequently announce new product betas on their blogs. Those who promulgate the "blogs-have-peaked" position also ignore the real trend toward extending the blogging phenomenon to mobile devices, with companies such as Nokia spearheading this effort.

**User Advice:** Blogs have grown from a novelty to a mainstream platform for content distribution. Therefore, it is time to align IT and business forces to develop a blogging strategy for corporate and public-facing opportunities. Enterprises must define clear strategic objectives for blogging, and support them with policies to encourage executives and employees to maintain regular entries and to identify and discourage harmful blogging practices. It's generally a best practice to involve the company's public relations group in the review of an enterprise's blog and, if a public company, to involve investor relations. Companies should fully disclose the provenance of its blogs, and eschew temptations to create false or deceptive "fan" blogs, often called "flogs," which almost invariably backfire into public relations disasters.

**Business Impact:** Print content companies — from magazines to newspapers — are affected. Increasingly, any public-facing media company or enterprise must have a blogging strategy. A need for better blogging tools will continue to drive developer and hosting business opportunities.

Liberal citation and quotation of other sources — not always clearly or appropriately referenced — are the current norm for blogs, which makes monitoring them important, to protect syndication policies in the case of media companies, and brand integrity in the case of marketers. Several

tools support the monitoring of brand mentions in blogs, and at least one tool — Attributor — can identify specific instances of copyrighted text in blogs.

**Benefit Rating:** Moderate

**Market Penetration:** 20% to 50% of target audience

**Maturity:** Mature mainstream

**Sample Vendors:** Blogger; Bloglines; Movable Type

## Entering the Plateau

### Presence

**Analysis By:** David Mario Smith

**Definition:** Presence is a foundation technology that provides an application, such as instant messaging (IM), conferencing, e-mail, a mobile device or other applications, with indication of the availability and "connectedness" of contacts. It shows if users' devices are online, and some description of their status, such as "available" or "on the phone." Presence engines can derive the user status automatically in a few cases (if PowerPoint is in presentation mode, the user is "busy," for example), but more commonly users must set their status manually. From that point onward, users can communicate directly with other people. Presence can sense things such as the users' geographic location (via a global positioning system or network information), the types of devices they are using, the applications or documents they have open on their systems, the applications in use (for example, the "focus" in Windows) and the activity taking place (for example, "the user is typing").

**Position and Adoption Speed Justification:** The key capability that makes an application real-time is the presence engine that enables users to make real-time communication decisions by seeing who is available and online. Communications capabilities are enhanced based on the information the presence engine can display about a contact or colleague. Presence has extended beyond IM to line-of-business applications, social networks and other virtual environments, while at the same time being able to show multiple dimensions of information about a person. Presence in e-mail and IM is well adopted, but not so in other business applications across the board. Also, presence engines from different vendors cannot interoperate natively due to proprietary protocols and extensions. This creates application silos which need to be overcome to accomplish presence aggregation across systems that can be tied to directory services.

**User Advice:** Make presence a business capability that extends beyond the enterprise IM system and can be embedded in business applications, social and business networks, portals and devices as a way to connect users regardless of geographic location.

**Business Impact:** Integrating presence across a wider range of applications and devices can bring immediacy and efficiency to core business processes. Presence integration will allow users on different platforms or applications to communicate and enable content sharing from multiple systems. Although the basic benefits of presence are known, it's emerging applications like social software in the enterprise which will add another dimension in displaying a stream of information about users, such as activities and where a person has been. Presence tied to enterprise directory services in social networking applications like Lotus Connections from IBM and the My Sites feature in SharePoint from Microsoft, will extend the persona of individuals and be key to tracking employee contributions and subject matter expertise, and managing reputations. Also, as the enterprise IM client has evolved to be a complete communications client, presence enables

click-to-call and click-to-conference functionalities to launch Web audio/videoconferencing between users. As the value of a network increases with the increased involvement of the people, enterprise IM vendors have created federated access via gateways to public service IM networks such as AOL and Yahoo, which are still the most predominantly used in enterprises.

**Benefit Rating:** Transformational

**Market Penetration:** 20% to 50% of target audience

**Maturity:** Early mainstream

**Sample Vendors:** AOL; IBM; Jabber; Microsoft

**Recommended Reading:**

"Use Presence Information to Enable Real-Time Efficiencies"

"Presence in Social Networks and Online Communities"

## Hype Cycle Phases, Benefit Ratings and Maturity Levels

**Table 1. Hype Cycle Phases**

Phase	Definition
<i>Technology Trigger</i>	A breakthrough, public demonstration, product launch or other event generates significant press and industry interest.
<i>Peak of Inflated Expectations</i>	During this phase of overenthusiasm and unrealistic projections, a flurry of well-publicized activity by technology leaders results in some successes, but more failures, as the technology is pushed to its limits. The only enterprises making money are conference organizers and magazine publishers.
<i>Trough of Disillusionment</i>	Because the technology does not live up to its overinflated expectations, it rapidly becomes unfashionable. Media interest wanes, except for a few cautionary tales.
<i>Slope of Enlightenment</i>	Focused experimentation and solid hard work by an increasingly diverse range of organizations lead to a true understanding of the technology's applicability, risks and benefits. Commercial off-the-shelf methodologies and tools ease the development process.
<i>Plateau of Productivity</i>	The real-world benefits of the technology are demonstrated and accepted. Tools and methodologies are increasingly stable as they enter their second and third generations. Growing numbers of organizations feel comfortable with the reduced level of risk; the rapid growth phase of adoption begins. Approximately 20% of the technology's target audience has adopted or is adopting the technology as it enters this phase.
<i>Years to Mainstream Adoption</i>	The time required for the technology to reach the Plateau of Productivity.

Source: Gartner (July 2008)

**Table 2. Benefit Ratings**

<b>Benefit Rating</b>	<b>Definition</b>
<i>Transformational</i>	Enables new ways of doing business across industries that will result in major shifts in industry dynamics
<i>High</i>	Enables new ways of performing horizontal or vertical processes that will result in significantly increased revenue or cost savings for an enterprise
<i>Moderate</i>	Provides incremental improvements to established processes that will result in increased revenue or cost savings for an enterprise
<i>Low</i>	Slightly improves processes (for example, improved user experience) that will be difficult to translate into increased revenue or cost savings

Source: Gartner (July 2008)

**Table 3. Maturity Levels**

<b>Maturity Level</b>	<b>Status</b>	<b>Products/Vendors</b>
<i>Embryonic</i>	<ul style="list-style-type: none"> <li>• In labs</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<i>Emerging</i>	<ul style="list-style-type: none"> <li>• Commercialization by vendors</li> <li>• Pilots and deployments by industry leaders</li> </ul>	<ul style="list-style-type: none"> <li>• First generation</li> <li>• High price</li> <li>• Much customization</li> </ul>
<i>Adolescent</i>	<ul style="list-style-type: none"> <li>• Maturing technology capabilities and process understanding</li> <li>• Uptake beyond early adopters</li> </ul>	<ul style="list-style-type: none"> <li>• Second generation</li> <li>• Less customization</li> </ul>
<i>Early mainstream</i>	<ul style="list-style-type: none"> <li>• Proven technology</li> <li>• Vendors, technology and adoption rapidly evolving</li> </ul>	<ul style="list-style-type: none"> <li>• Third generation</li> <li>• More out of box</li> <li>• Methodologies</li> </ul>
<i>Mature mainstream</i>	<ul style="list-style-type: none"> <li>• Robust technology</li> <li>• Not much evolution in vendors or technology</li> </ul>	<ul style="list-style-type: none"> <li>• Several dominant vendors</li> </ul>
<i>Legacy</i>	<ul style="list-style-type: none"> <li>• Not appropriate for new developments</li> <li>• Cost of migration constrains replacement</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance revenue focus</li> </ul>
<i>Obsolete</i>	<ul style="list-style-type: none"> <li>• Rarely used</li> </ul>	<ul style="list-style-type: none"> <li>• Used/resale market only</li> </ul>

Source: Gartner (July 2008)

## RECOMMENDED READING

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"Understanding Gartner's Hype Cycles, 2008"

"Roundup of Social Software Research, 1H08"

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