

# Peer Production, Social Media, and Web 2.0

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## 1. INTRODUCTION

### LEARNING OBJECTIVES:

After studying this section you should be able to:

1. Recognize the unexpected rise and impact of social media and peer production systems, and how these services differ from prior generation tools.
2. List the major classifications of social media services.

Over the past few years a fundamentally different class of Internet services has attracted users, made headlines, and increasingly garnered breathtaking market valuations. Often referred to under the umbrella term “Web 2.0”, these new services are targeted at harnessing the power of the Internet to empower users to collaborate, create resources, and share information in a distinctly different way than the static websites and transaction focused storefronts that characterized so many failures in the dot com bubble. Blogs, wikis, social networks, photo and video sharing sites, and tagging systems all fall under the Web 2.0 moniker, as do a host of supporting technologies and related efforts.

The term Web 2.0 is a tricky one because like so many popular technology terms, there’s not a precise definition. Coined by publisher and pundit Tim O’Reilly in 2003, techies often joust over the breadth of the Web 2.0 umbrella and over whether Web 2.0 is something new, or simply an extension of technologies that have existed since the creation of the Internet. These arguments aren’t really all that important. What is significant is how quickly the Web 2.0 revolution came about, how unexpected it was, and how deeply impactful these efforts have become.

To underscore the speed with which Web 2.0 arrived on the scene, and the impact of leading Web 2.0 services, consider the following efforts:

- According to a Spring 2008 report by Morgan Stanley, Web 2.0 services ranked as seven of the world’s top ten most heavily trafficked Internet sites (YouTube, Live.com, MySpace, Facebook, Hi5, Wikipedia, and Orkut); only one of these sites (MySpace) was on the list in 2005.
- With only seven full-time employees and an operating budget of less than \$1 million, Wikipedia has become the Internet’s fifth most visited site on the Internet. The site boasts well over 3 million articles in some 250 different languages, all of them contributed, edited, and fact-checked by volunteers.
- Just two years after it was founded, MySpace was bought for \$580 million by Rupert Murdoch’s News Corporation (the media giant that owns the Wall Street Journal and the Fox networks, among other properties). By year-end 2007, the site accounted for some 12% of Internet minutes and has repeatedly ranked as the most-visited website in the U.S.
- At rival Facebook, users in the highly sought after college demographic spend over 30 minutes a day on the site. A Fall 2007 investment from Microsoft pegged the firm’s overall

value at \$15 billion, a number that would make it the fifth most valuable Internet firm, despite annual revenues of only \$150 million.

- Just 20 months after its founding, YouTube was purchased by Google for \$1.65 billion. While Google struggles to figure out how to monetize what is currently a money-losing resource hog (over 11 hours of video are uploaded to YouTube each minute) the site has emerged as the web's leading destination for video, hosting everything from apologies from JetBlue's CEO for service gaffes to questions submitted as part of the 2008 U.S. presidential debates. Fifty percent of YouTube's roughly 300 million users visit the site at least once a week.

<u>Web 1.0</u>		<u>Web 2.0</u>
DoubleClick	-->	Google AdSense
Ofoto	-->	Flickr
Akamai	-->	BitTorrent
mp3.com	-->	Napster
Britannica Online	-->	Wikipedia
personal websites	-->	blogging
evite	-->	upcoming.org and EVDB
domain name speculation	-->	search engine optimization
page views	-->	cost per click
screen scraping	-->	web services
publishing	-->	participation
content management systems	-->	wikis
directories (taxonomy)	-->	tagging ("folksonomy")
stickiness	-->	syndication

### **Tim O'Reilly's Examples Comparing Web 1.0 vs. Web 2.0**

Millions of users, billions of dollars, huge societal impact, and these efforts weren't even on the radar of most business professionals when today's graduating college seniors first enrolled as freshmen. The trend demonstrates that even some of the world's preeminent thought leaders and business publications can be sideswiped by the speed of the Internet.

Consider that when management guru Michael Porter wrote a piece titled "Strategy and the Internet" at the end of the dot-com bubble, he lamented the high cost of building brand online, questioned the power of network effects, and cast a skeptical eye on ad-supported revenue models. Well, it turns out Web 2.0 efforts challenged *all* of these assumptions. Among the efforts above, all built brand on the cheap with little conventional advertising, and each owes their hyper-growth and high valuation to their ability to harness the network effect. In June 2008 BusinessWeek also confessed to having an eye off the ball. In a cover story on social media, the magazine offered a mea culpa, fessing up that while blogging was on their radar, editors were blind to the bigger trends afoot online, and underestimated the rise and influence of social networks, wikis, and other efforts.

While the Web 2.0 moniker is a murky one, we'll add some precision to our discussion of these efforts by focusing on what is perhaps Web 2.0's most powerful feature - *peer production* - where users work, often collaboratively, to create content and provide services online. Web-based efforts that foster peer-production are often referred to as *social media* or *user-generated content* sites. These include blogs, wikis, social networks like Facebook and MySpace, communal bookmarking and tagging sites like Del.icio.us, media sharing sites like YouTube and Flickr, and a host of supporting technologies. And it's not just about media. Peer-produced services like Skype, Joost, and BitTorrent leverage users' computers instead of a central IT resource to forward phone calls and video. This saves their sponsors the substantial cost of servers, storage, and bandwidth. Techniques such as crowd-sourcing, where initially undefined groups of users band together to solve problems, create code, and develop services are also a type of peer-production (see sidebar). These efforts will be expanded on below, along with several examples of their use and impact.

#### KEY TAKEAWAYS:

- A new generation of Internet applications is enabling consumers to participate in creating content and services online. Examples include Web 2.0 efforts such as social networks, blogs, and wikis, as well as efforts such as Skype, BitTorrent, and Joost, which leverage user participation to provide a service.
- These efforts have grown rapidly, most with remarkably little investment in promotion. Nearly all of these new efforts leverage network effects to add value and establish their dominance, and viral marketing to build awareness and attract users.

## 2. BLOGS

#### LEARNING OBJECTIVE:

After studying this section you should:

1. Know what blogs are; and how corporations, executives, individuals, and the media use them.
2. Understand the benefits and risks of blogging.

Blogs (short for Web Logs) first emerged almost a decade ago as a medium for posting online diaries. (In a perhaps apocryphal story, Wired Magazine claimed the term "Web Log" was coined by Jorn Barger, a sometimes homeless, yet profoundly prolific, Internet poster). From humble beginnings, the blogging phenomenon has grown to a point where the number of public blogs tracked by Technorati (the popular blog index) has surpassed 100 million. This is clearly a *long-tail* phenomenon, loaded with niche content that remains 'discoverable' through search engines and blog indexes. *Trackbacks* (third-party links back to original blog post), and *blog rolls* (a list of a blogger's favorite sites - a sort of shout-out to blogging peers) also help distinguish and reinforce the reputation of widely read blogs.

The most popular blogs offer cutting-edge news and commentary, with postings running the gamut from professional publications to personal diaries. While this cacophony of content was once dismissed, blogging is now a respected and influential medium. Consider that the political blog *The Huffington Post* is now more popular than all but eight newspaper sites. Keep in mind that this is a site without the sports, local news, weather, and other content offered by most

papers. Ratings like this are hard to achieve – most bloggers can't make a living off their musings. But among the elite ranks, killer subscriber numbers are a magnet for advertisers. Top blogs operating on shoestring budgets can snare several hundred thousand dollars a month in ad revenue. Most start with ad networks like Google AdSense, but the most elite engage advertisers directly for high-value deals and extended sponsorships.

It's no wonder that top blogs have begun to attract well-known journalists away from print media. The popular blog *TechCrunch* hired Erick Schonfeld away from Time Warner's business publishing empire, while Schonfeld's co-hort Om Malik founded another highly-ranked tech industry blog, *GigaOM*. Sometimes this works the other way. Robert Scoble, a blogger who made his reputation as the informal online voice for Microsoft, has since been hired to run social media at *FastCompany* magazine.

Senior executives from many industries have also begun to weigh in with online ruminations, going directly to the people without a journalist filtering their comments. Sun Microsystem's Jonathan Schwartz, GM's Bob Lutz, and Paul Levy (CEO of healthcare quality leader Beth Israel Deaconess Medical Center) use their blogs for purposes that include a combination of marketing, sharing ideas, gathering feedback, press response, and image shaping. Blogs have the luxury of being more topically focused than traditional media, with no limits on page size, word count, or publication deadline. Some of the best examples engage new developments in topic domains much more quickly and deeply than traditional media. For example, it's not uncommon for blogs focused on the law or politics to provide a detailed dissection of a Supreme Court opinion within hours of its release--offering analysis well ahead of, and with greater depth than what bloggers call the *MSM* (mainstream media). As such, it's not surprising that most mainstream news outlets have begun supplementing their content with blogs that can offer greater depth, more detail, and deadline-free timeliness.

## **Blogs**

While the feature set of a particular blog depends on the underlying platform and the preferences of the blogger, several key features are common to most blogs, including:

- *Ease of use*: creating a new post usually involves clicking a single button
- *Reverse chronology*: posts are listed in reverse order of creation, making it easy to see the most recent content
- *Comment threads*: readers can offer comments on posts
- *Persistence*: posts are maintained indefinitely at locations accessible by permanent links
- *Searchability*: current and archived posts are easily searchable
- *Tags*: posts are often classified under an organized tagging scheme
- *Trackbacks*: allows an author to acknowledge the source of an item in their post, which allows bloggers to follow the popularity of their posts among other bloggers

The voice of the blogosphere can wield significant influence. Examples include leading the charge for Dan Rather's resignation, and prompting the design of a new insulin pump. In an example of what can happen when a firm ignores social media, consider the flare-up Ingersoll Rand faced when the online community exposed a design flaw in its Kryptonite bike lock.

Online posts showed the thick metal lock could be broken with a simple ball-point pen. A video showing the hack was posted online. When Ingersoll Rand failed to react quickly, the blogosphere erupted with criticism. Just days after online reports appeared, the mainstream media picked up the story. The *New York Times* ran a story titled "The Pen Is Mightier Than the Lock" that included a series of photos demonstrating the ballpoint Kryptonite lock pick. The event tarnished the once-strong brand and eventually resulted in a loss of over \$10 million.

Concern over managing a firm's online reputation by monitoring blog posts and other social-media commentary has led to the rise of an industry known as *online reputation monitoring*. Firms specializing in this field will track a client firm's name, brand, executive names, or other keywords and report online activity and whether it is positive or negative. TechCrunch founder, influential blogger Michael Arrington, demonstrated how Comcast monitors and responds to online comments. Arrington unexpectedly lost his Comcast connection and was told by customer service that it would be up in 30 minutes. When several hours went by without a resumption of service, Arrington railed against Comcast in Twitter (a *microblogging* service that offers posts of no more than 140 characters, most of which are made via mobile phones). Twitter is a relatively small service by usage numbers, but is favored by the hyper-connected elite of the blogging world, who regularly trawl for tweets (Twitter posts) on the latest happenings to use as blog fodder. Other bloggers picked up on Arrington's Comcast tweet, and within 20 minutes of his first Twitter post, he received a call from a Comcast executive asking how the firm could help. For Comcast, a disastrous outage turned into a PR event demonstrating the attentiveness, tech-savvy, and fast-response of management.

Like any web page, blogs can be public, tucked behind a corporate firewall, or password protected. Most blogs offer a two-way dialog, allowing users to comment on posts (sort of instant "letters to the editor," posted online and delivered directly to the author). The running dialog can read like an electronic bulletin board, and can be an effective way to gather opinion when vetting ideas. Just as important, user comments help keep a blogger honest. Just as the "wisdom of crowds" keeps Wikipedia accurate, a vigorous community of commenters will quickly expose a blogger's errors of fact or logic.

Despite this increased popularity, blogging has its downside. Blog comments can be a hothouse for spam and the disgruntled. Ham-handed corporate efforts (such as poor response to public criticism or bogus 'praise posts') have been ridiculed. Employee blogging can be difficult to control and public postings can 'live' forever in the bowels of an Internet search engine or as content pasted on other websites. Many firms have employee blogging and broader Internet posting policies to guide online conduct that may be linked to the firm. Bloggers beware, there are dozens of examples of workers who have been fired for what employers viewed as inappropriate posts.

Blogs can be hosted via third-party services (Google Blogger, WordPress.com, TypePad, Windows Live Spaces), with most offering a combination of free and premium features. Blogging features have also been incorporated into social networks such as Facebook, MySpace, and Ning, as well as wiki tools such as SocialText. Blogging software can also be run on third-party servers, allowing the developer more control in areas such as security and formatting. The

most popular platform for users choosing to host their own blog server is the open-source Word Press system (based on PHP and MySQL).

Blogs have become a fire hose of rapidly-delivered information as tool providers have made it easier for would-be bloggers to capture and post content. For example, the Google Toolbar has a "BlogThis!" feature that allows anyone with a Google Blogger account to post links directly to their blogs. Apple ships blog hosting tools with its server products, and Microsoft offers the free LiveWriter blog editing tool and the MSN Spaces blogging service. Blogger and many social networking sites also offer easy features for posting content and photos from a mobile phone or devices like the iPod Touch.

In the end, the value of any particular blog derives from a combination of technical and social features. The technical features make it easy for a blogger and his/her community to engage in an ongoing conversation on some topic of shared interest. But it is the social norms and patterns of use that emerge over time in each blog that determines whether technology features will be harnessed for good or ill. Some blogs develop norms of fairness, accuracy, proper attribution, quality writing, and good faith argumentation, and attract readers that find these norms attractive. Others mix it up with hotly contested debate, one-sided partisanship, or deliberately provocative posts, attracting a decidedly different type of discourse.

#### KEY TAKEAWAYS:

- Blogs provide a rapid way to distribute ideas and information from one writer to many readers.
- Ranking engines, trackbacks, and comments allow a blogger's community of readers to spread the word on interesting posts and participate in the conversation.
- Well known blogs can be powerfully influential, acting as flashpoints on public opinion.
- Firms ignore influential bloggers at their peril, but organizations should also be cautious about how they use and engage blogs, and avoid flagrantly promotional or biased efforts.

### 3. WIKIS

#### LEARNING OBJECTIVE:

After studying this section you should:

1. Know what wikis are, and how they are used by corporations and the public at large.
2. Understand the technical and social features that drive effective and useful wikis.
3. Be able to suggest opportunities where wikis would be useful, and consider under what circumstances their use may present risks.
4. Recognize how social media such as wikis and blogs can influence a firm's customers and brand.

A wiki is a website anyone can edit directly within a web browser (provided the site grants the user edit access). Wikis derive their name from the Hawaiian word for 'quick'. Ward Cunningham, the 'wiki father' christened this new class of software with the moniker in honor of the wiki-wiki shuttle bus at the Honolulu airport. Wikis can indeed be one of the speediest ways

to collaboratively create content online. Many popular online wikis serve as a shared knowledge repository in some domain.

The largest and most popular wiki is Wikipedia, but there are hundreds of publicly accessible wikis that anyone can participate in. Each attempts to chronicle a world of knowledge within a particular domain, with examples ranging from Wine Wiki for oenophiles to Wookieepedia, the Star Wars wiki. But wikis can be used for any collaborative effort – from meeting planning to project management. And in addition to the hundreds of public wikis, there are many thousand more that are hidden away behind firewalls, used as proprietary internal tools for organizational collaboration.

Like blogs, the value of a wiki derives from both technical and social features. The *technology* makes it easy to create, edit and refine content; learn when content has been changed, how and by whom; and to change content back to a prior state. But it is the *social motivations of individuals* (to make a contribution, to share knowledge) that allows these features to be harnessed. The larger and more active a wiki community, the more likely it is that content will be up-to-date, and that errors will be quickly corrected. Several studies have shown that large community wiki entries are as or more accurate than professional publication counterparts.

Want to add to or edit a wiki entry? On most sites you just click the Edit link. Wikis support *WYSIWYG* (what you see is what you get) editing that, while not as robust as traditional word processors, is still easy enough for most users to grasp without training or knowledge of arcane code or markup language. Users can make changes to existing content and can easily create new pages or articles and link them to other pages in the wiki. Wikis also provide a version history. Click the ‘history’ link on Wikipedia, for example, and you can see when edits were made, and by whom. This allows the community to ‘roll back’ a wiki to a prior page, in the event that someone accidentally deletes key info, or intentionally defaces a page.

Vandalism is a problem on Wikipedia, but it’s more of a nuisance than a crisis. A Wired article chronicled how Wikipedia’s entry for former U.S. President Jimmy Carter was regularly replaced by a photo of a “scruffy, random unshaven man with his left index finger shoved firmly up his nose”. Nasty and inappropriate, to be sure, but the Wikipedia editorial community is now so large and so vigilant that most vandalism is caught and corrected within seconds. Watch-lists for the most active targets (say the web pages of political figures or controversial topics) tip off the community when changes are made. The accounts of vandals can be suspended, and while mischief-makers can log in under another name, most vandals simply become discouraged and move on. It’s as if an army of do-gooders follows a graffiti tagger and immediately re-paints any defacement.

### **Wikis**

As with blogs, a wiki’s features set varies depending on the specific wiki tool chosen, as well as administrator design, but most wikis support the following key features:

- All changes are *attributed*, so others can see who made a given edit

- A complete *revision history* is maintained so changes can be compared against prior versions and rolled back as needed
- Automatic *notification* and *monitoring* of updates; users subscribe to wiki content and can receive updates via email or RSS feed when pages have been changed or new content has been added
- *Searchability* – all the pages in a wiki are searchable
- *Tags* – specific wiki pages can be classified under an organized tagging scheme

Wikis are available both as software (commercial as well as open-source varieties) that firms can install on their own computers or as online services (both subscription or ad-supported) where content is hosted off-site by third-parties. Since wikis can be started without the oversight or involvement of a firm's IT department, their appearance in organizations often comes from grassroots user initiative. Many wiki services offer additional tools such as blogs, message boards, or spreadsheets as part of their feature set, making most wikis really more full-featured platforms for social computing.

### 3.1 Examples of Wiki Use

Wikis can be vital tools to collect and leverage knowledge that would otherwise be scattered throughout an organization, reducing geographic distance, removing boundaries between functional areas, and flattening pre-existing hierarchies. Companies have used wikis in a number of ways:

- At Pixar, all product meetings have an associated wiki to improve productivity. The online agenda ensures that all attendees can arrive knowing the topics and issues to be covered. Anyone attending the meeting (and even those who can't make it) can update the agenda, post supporting materials, and make comments to streamline and focus in-person efforts.
- At European investment bank Dresdner Kleinwort Wasserstein, employees use wikis for everything from setting meeting agendas to building multimedia training for new hires. Six months after launch, wiki use had surpassed activity on the firm's established intranet. Wikis are also credited with helping to reduce Dresdner e-mail traffic by 75%.
- Sony's PlayStation team uses wikis to regularly maintain one-page overviews on the status of various projects. In this way, legal, marketing, and finance staff can get quick, up-to-date status reports on relevant projects, including the latest projected deadlines, action items, and benchmark progress. Strong security measures are enforced that limit access to only those who must be in-the-know, since the overviews often discuss products that have not been released.
- Employees at investment-advisory firm Manning and Napier use a wiki to collaboratively track news in areas of critical interest. Providing central repositories for employees to share articles and update evolving summaries on topics such as universal health care legislation, enables the firm to collect and focus what would otherwise be fragmented findings and insight. Now all employees can refer to central pages that each serve as a lightning rod attracting the latest and most relevant findings.

When brought outside the firewall, corporate wikis can also be a sort of value-generation greenhouse, allowing organizations to leverage input from their customers and partners:

- Amazon leverages its Amapedia wiki, allowing customers to create user-generated product information and side-by-side review comparisons.
- eBay, a site that has regularly been shaped by user input through bulletin-board forums, now provides a wiki where users can collectively create articles on any topic of interest to the community, including sales strategy, information for collectable enthusiasts, or new user documentation.
- Microsoft leveraged its customer base to supplement documentation for its Visual Studio software development tool. The firm was able to enter the Brazilian market with Visual Studio in part because users had created product documentation in Portuguese.
- ABC and CBS have created public wikis for the television programs Lost, The Amazing Race, Jericho, and CSI, among others, offering an outlet for fans, and a way for new viewers to catch up on character backgrounds and complex plot lines.
- Executive Travel, owned by American Express Publishing, has created a travel wiki for its 130,000 plus readers with the goal of creating what it refers to as "a digital mosaic that in theory is more authoritative, comprehensive, and useful" than comments on a website, and far more up-to-date than any paper-based travel guide. Of course, one challenge in running such a corporate effort is that there may be a competing public effort already in place. Wikitravel.org currently holds the top spot among travel-based wikis, and network effects suggest it will likely grow and remain more current than rival efforts.

Jump-starting a wiki can be a challenge, and an under-used wiki can be a ghost town of orphan, out-of-date, and inaccurate content. Fortunately, once users see the value of wikis, use and effectiveness often snowballs. The unstructured nature of wikis are also both a strength and weakness. Some organizations employ *wikimasters* to "garden" community content; "pruning" excessive posts, "transplanting" commentary to the best location, and "weeding" as necessary. Often communities will quickly develop norms for organizing and maintaining content. Wikipatterns.com offers a guide to the stages of wiki adoption and a collection of community-building and content-building strategies.

### **Don't Underestimate the Power of Wikipedia**

Not only is the nonprofit Wikipedia, with its enthusiastic army of unpaid experts and editors, an immediate threat to the 300-year-old Encyclopedia Britannica, Wikipedia entries can impact nearly all large-sized organizations. Wikipedia is the go-to, first-choice reference site for a generation of netizens, and Wikipedia entries are invariably one of the top links, often the first link, to appear in Internet search results. This means that anyone from top executives to political candidates to any firm large enough to warrant an entry has to contend with the very public commentary offered up in a Wikipedia entry. In the same way that firms monitor their online reputations in blog posts and Twitter tweets, they've also got to keep an eye on wikis. But firms that overreach and try to influence an entry outside of Wikipedia's mandated NPOV (neutral point of view), risk a backlash and public exposure. Version tracking means the wiki sees all. Users on computers at right-leaning Fox News were embarrassingly caught editing the wiki page

of the lefty pundit and politician Al Franken (a nemesis of Fox's Bill O'Reilly), Sony staffers were flagged as editing the entry for the Xbox game Halo 3, and none other than Wikipedia founder Jimmy Wales was criticized for editing his own Wikipedia biography, an act that some consider bad online form at best, and dishonest at worst.

#### KEY TAKEAWAYS:

- Wikis can be powerful tools for many-to-many content collaboration, and can be ideal for creating resources that benefit from the input of many such as encyclopedia entries, meeting agendas, project status documents.
- The greater the number of wiki users, the more likely the information contained in the wiki will be accurate and grow in value.

## 4. ELECTRONIC SOCIAL NETWORKS:

#### LEARNING OBJECTIVE:

After studying this section you should:

1. Know what social networks are, and how they are used by individuals, groups, and corporations.
2. Understand the difference between major social networks MySpace, Facebook, and LinkedIn.
3. Recognize the benefits and risks of using social networks.
4. Be aware of trends that may influence the evolution of social networks.

Social Networks have garnered increasing attention as established networks grow and innovate, new networks emerge, and value is demonstrated. MySpace signed a billion dollar deal to carry ads from Google's AdSense network. Meanwhile, privately held Facebook has moved beyond its college roots, and opened its network to third-party application developers. LinkedIn, which rounds out the Big Three U.S. public social networks, also grew dramatically in 2007, rolling out new services for messaging, information sharing, and even integrating with the *BusinessWeek* website.

Media reports often mention MySpace, Facebook and LinkedIn in the same sentence. However, while these networks share some common features, they serve very different purposes. MySpace pages are largely for public consumption. The site was originally started by musicians as a tool to help users discover new music and engage with bands. Today, MySpace members leverage the service to discover people with similar tastes or experiences (say fans of a comic, or sufferers of a condition). Facebook, by contrast, is more oriented towards reinforcing existing social ties between people who already know each other. This leads to different usage patterns. Since Facebook is perceived by users as relatively secure, with only invited "friends" seeing your profile, over a third of Facebook users post their mobile phone numbers on their profile pages. LinkedIn was conceived from the start as a social network for business users. The site's profiles act as a sort of digital Rolodex that users update as they move or change jobs. Users can pose questions to members of their network, engage in group discussions, ask for introductions through mutual contacts, and comment on one-another's profiles (e.g., recommending a member). Active members find the site invaluable for maintain professional contacts, seeking

peer advice, networking, and even recruiting. Carmen Hudson, Starbucks manager of enterprise staffing, states LinkedIn is “one of the best things for finding mid-level executives”.

While these networks dominate in the United States, the network effect and cultural differences work to create islands where other social networks are favored by a particular culture or region. The first site to gain traction in a given market is usually the winner. Google’s Orkut, Bebo (now owned by AOL), and Cyworld have small U.S. followings, but are among the largest sites in Brazil, Europe, and South Korea. Research by Ipsos Insight also suggests that users in many global markets, including Brazil, South Korea, and China, are more active social networkers than their U.S. counterparts.

Perhaps the most powerful (and controversial) feature of most social networks is the feed. Pioneered by Facebook but now adopted by most services, feeds provide a timely update on the activities of people or topics that an individual has an association with. Facebook feeds can give you a heads up when someone makes a friend, joins a group, posts a photo, breaks up with someone they were dating, or installs an application. Feeds are inherently viral. By seeing what others are doing on a social network, feeds can rapidly mobilize populations and dramatically spread the adoption of applications. Leveraging feeds, it took just ten days for the Facebook group Support the Monks' Protest in Burma to amass over 160,000 Facebook members. Feeds also helped music app iLike garner 3 million Facebook users just two weeks after its launch. Its previous web-based effort took eight months to reach those numbers. But feeds are also controversial. Many users react negatively to this sort of public broadcast of their online activity, and feed mismanagement can create public relations snafus, user discontent, and potentially open up a site to legal action. Facebook initially dealt with a massive user outcry at the launch of feeds, and faced a subsequent backlash when its Beacon service broadcast user purchases without first explicitly asking their permission (see the Facebook case study for more details).

## Social Networks

The foundation of a social network is the user profile, but utility goes beyond the sort of listing found in a corporate information directory. Typical features include support for:

- Detailed *personal profiles*
- Affiliations with *groups*, such as alumni, employers, hobbies, fans, health conditions)
- Affiliations with *individuals* (e.g. specific 'friends')
- Private *messaging* and public *discussions*
- Media *sharing* (text, photos, video)
- "*Feeds*" of recent activity among members (e.g. status changes, new postings, photos, applications installed)
- The ability to install and use third-party applications tailored to the service (games, media viewers, survey tools, etc.), many of which are also social and allow others to interact.

### 4.1 Corporate Use of Social Networks

The use of public social networks within private organizations is becoming widespread. Many employees have organized groups using publicly available social networking sites because

similar tools are not offered by their firms. The October 2007 issue of Workforce Management reported that MySpace had over 40,000 groups devoted to companies or co-workers, while Facebook had over 8,000. Assuming a large fraction of these groups are focused on internal projects, this demonstrates a clear pent up demand for corporate-centric social networks.

Many firms are choosing to meet this demand by implementing internal social network platforms that are secure and tailored to firm needs. At the most basic level, these networks have supplanted the traditional employee directory. Social network listings are easy to update and expand. Employees are encouraged to add their own photos, interests, and expertise to create a living digital identity.

Firms such as Deloitte, Dow Chemical, and Goldman Sachs have created social networks for “alumni” who have left the firm or retired. These networks can be useful in maintaining contacts for future business leads, rehiring former employees (20% of Deloitte's experienced hires are so called “boomerangs”, or returning employees), or recruiting retired staff to serve as contractors when labor is tight. Maintaining such networks will be critical in industries like IT and health care that are likely to be plagued by worker shortages for years to come. Social networking can also be important for organizations like IBM, where some 42% of employees regularly work from home or client locations. IBM's social network makes it easier to locate employee expertise within the firm, organize virtual work groups, and communicate across large distances. As a dialogue catalyst, a social network transforms the public directory into a font of knowledge sharing, promoting organization-flattening, value-adding expertise sharing. As another example of corporate social networks, Reuters has rolled out Reuters Space, a private online community for financial professionals. Profile pages can also contain a personal blog and news feeds (from Reuters or external services). Every profile page is accessible to the entire Reuters Space community, but members can choose which personal details are available to whom. While IBM and Reuters have developed their own social network platforms, firms are increasingly turning to third-party vendors like SelectMinds (adopted by Deloitte, Dow Chemical, and Goldman Sachs) and LiveWorld (adopted by Intuit, eBay, the NBA, and Scientific American).

## **4.2 Concerns**

As with any type of social media, content flows in social networks are difficult to control. Embarrassing public disclosures can emerge from public systems or insecure internal networks. Employees embracing a culture of digital sharing may err and release confidential or proprietary information. Networks could serve as a focal point for the disgruntled (imagine the activity on a corporate social network after a painful layoff). Publicly declared affiliations, excessive contact, declined participation, and other factors might lead to awkward or strained employee relationships. Users may not want to add a coworker as a friend on a public network if it means they'll expose their activities, lives, persona, photos, sense of humor, and friends as they exist outside of work. And many firms fear time-wasting as employees surf the musings and photos of their peers.

Job seekers should also be cautious. Employers are trawling the Internet, mining Facebook, and scouring YouTube for any tip-off that a would-be hire should be passed over. A word to the wise: those Facebook party pics, YouTube videos of open mic performances, or blog postings

from a particularly militant period might not age well, and may haunt you forever in a Google search. Think twice before clicking the upload button!

### 4.3 Success Factors

Despite these concerns, trying to micromanage a firm's social network is probably not the answer. At IBM, rules for online behavior are surprisingly open. The firm's code of conduct reminds employees to remember privacy, respect, and confidentiality in all electronic communications. Anonymity is not permitted on IBM's systems, making everyone accountable for their actions. As for external postings, the firm insists that employees don't disparage competitors or reveal customers names without permission, and asks that employee posts from IBM accounts or that mention the firm also include disclosures indicating that opinions and thoughts shared publicly are the individual's and not Big Blue's.

### 4.4 Trends to Watch

The valued connections among users are often referred to as the social graph, a phrase Facebook founder Mark Zuckerberg regularly uses in conversations about the firm's strategy. One challenge for organizations or individuals developing a social network is to populate their social graph in whatever system they join. New efforts by Yahoo and Google rely on email communication as a natural and efficient way to add contacts to a social network. Third-party software from firms such as Contact Networks, Spoke Software, and Zero Degrees provide software that can mine contacts from email, calendar entries, and instant messaging systems.

GPS (global positioning system) and location-based services in devices are appearing in social software that allows colleagues and friends to find one another when nearby, ushering in a host of productivity and privacy issues along with them. At the launch of Apple's iPhone 3G, Loopt CEO Sam Altman showed how the firm's touch app for iPhones and iPods could display a map with dots representing anyone on his or her contact list who elected to broadcast their whereabouts to him. Claims Altman, "You never have to eat lunch alone again."

Other efforts seek to increase information exchange and potentially lower switching costs between platforms. *OpenSocial*, sponsored by Google and embraced by MySpace, LinkedIn, and many others, is a platform allowing third-party programmers to build widgets that take advantage of personal data and profile connections across social-networking sites. Similarly, *DataPortability.org*, is an effort, supported by all major public social network platforms, to allow users to migrate data from one site for reuse elsewhere. The initiative should also allow vendors to foster additional innovation and utility through safe, cross-site data exchange.

#### KEY TAKEAWAYS

- Electronic social networks help individuals maintain contacts, discover and engage people with common interests, share updates, and organize as groups.
- Modern social networks are major messaging services, supporting private one-to-one notes, public postings, and broadcast updates or 'feeds'.

- Social networks also raise some of the strongest privacy concerns, as status updates past messages, photos, and other content linger, even as a user's online behavior and network of contacts changes.

## 5. Other Key Web 2.0 Terms & Concepts

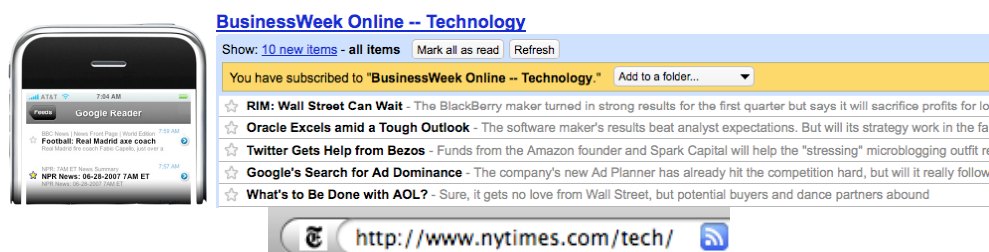
### LEARNING OBJECTIVES:

After studying this section you should:

1. Know key terms related to social media, peer production, and Web 2.0, including RSS, Folksonomies, Mashups, Virtual Worlds, and Rich Media.
2. Be able to provide examples of the effective business use of these terms and technologies.

### 5.1 RSS

RSS (an acronym that stands for both really simple syndication and rich site summary) enables busy users to scan the headlines of newly available content and click on an item's title to view items of interest, thus sparing them from having to continually visit sites to find out what's new. Users begin by subscribing to an RSS feed for a website, blog, podcast, or other data source. The title or headline of any new content will then show up in an RSS reader. Subscribe to the New York Times Technology news feed, for example, and you will regularly receive headlines of tech news from the Times. Viewing an article of interest is as easy as clicking the title you like. Subscribing is often as easy as clicking on the RSS icon appearing on the home page of a website of interest. Many firms use RSS feeds as a way to manage information overload, opting to distribute content via feed rather than email. Some even distribute corporate reports via RSS. RSS readers are offered by third-party websites such as Google and Yahoo, and they have been incorporated into all popular browsers and most email programs. Most blogging platforms provide a mechanism for bloggers to automatically publish a feed when each new post becomes available. Google's FeedBurner is the largest publisher of RSS blog feeds, and offers features to distribute content via email as well.



**RSS Readers like Google Reader (shown above on iPhone and browser versions) can be an easy way to scan blog headlines & click through to follow interesting stories. Websites that support RSS feeds will have an icon  in the address bar. Click it to subscribe.**

### 5.2 Folksonomies

*Folksonomies* (sometimes referred to as social tagging) are keyword-based classification systems created by user communities as they generate and review content. (The label is a combination of "folks" and "sonomy," meaning a people-powered taxonomy). Bookmarking site Del.icio.us and

photo-sharing site Flickr (both owned by Yahoo) make heavy use of folksonomies. With this approach, classification schemes emerge from the people most likely to understand them the users. By leveraging the collective power of the community to identify and classify content, objects on the Internet become easier to locate, and content carries a degree of recommendation and endorsement. Flickr cofounder Stewart Butterfield describes the spirit of folksonomies, saying "the job of tags isn't to organize all the world's information into tidy categories, it's to add value to the giant piles of data that are already out there." The Guggenheim Museum in New York City and the San Francisco Museum of Modern Art, among other museums, are taking a folksonomic approach to their online collections, allowing user-generated categories to supplement the specialized lexicon of curators. Amazon.com has introduced a system that allows readers to classify books.

### 5.3 MashUp

*Mashups* are combinations of two or more technologies or data feeds into a single, integrated tool. Some of the best known mashups leverage Google's mapping tools. HousingMaps.com combines Craigslist.org listings with Google Maps for a map-based display for apartment hunters. IBM linked together job feeds and Google Maps to create a job-seeker service for victims of Hurricane Katrina. SimplyHired links job listings with Google Maps, LinkedIn listings, and salary data from PayScale.com. And Salesforce.com has tools that allow its CRM data to be combined with data feeds and maps from third parties. Mashups are made easy by a tagging system called XML (for extensible markup language). Site owners publish the parameters of XML data feeds that a service can accept or offer (e.g., an address, price, product descriptions, images). Other developers are free to leverage these public feeds using *APIs* (application programming interfaces), published instructions on how to make programs call one another, to share data, or to perform tasks. Using APIs and *XLM*, mashup authors smooch together seemingly unrelated data sources and services in new and novel ways. Lightweight, browser friendly software technologies like Ajax can often make a website interface as rich as a desktop application, and rapid deployment frameworks like Ruby on Rails will enable and speed up mashup creation and deployment

### 5.4 Virtual Worlds

In *virtual worlds*, users appear in a computer-generated environment in the form of an *avatar*, or animated character. Users can customize the look of their avatar, interact with others by typing or voice chat, and can travel about the virtual world by flying, teleporting, or more conventional means. The most popular virtual world by far is Second Life by Linden Labs, although many others exist. Most are free, although game-oriented worlds, such as World of Warcraft (with 10 million active subscribers) charge a fee. Many corporations and organizations have established virtual outposts by purchasing "land" in the world of Second Life, while still others have contracted with networks to create their own, independent virtual worlds. Most organizations have struggled to commercialize these Second Life forays, but activity has been wide-ranging in its experimentation. Reuters "stationed" a reporter in Second Life, presidential candidates have made appearances in the virtual world, organizations ranging from Sun Microsystems to Armani have set up virtual storefronts, and there's a significant amount of virtual mayhem. Second Life

"terrorists" have "bombed" virtual outposts run by several organizations, including ABC News, American Apparel, and Reebok.

## 5.5 YouTube, Podcasting, and Rich Media

Blogs, wikis, and social networks not only enable sharing text and photos, they also allow for the creation and distribution of audio and video. *Podcasts* are digital audio files provided as a series of programs; you can think of them as audio blogs. While the term podcast derives from Apple's wildly successful iPod, podcasts can be recorded in audio formats such as MP3 that can be played on most portable media players. (In perhaps the ultimate concession to the market leader, even the iPod rival Microsoft Zune refers to serialized audio files as podcasts on its navigation menu). There are many podcast directories, but Apple's iTunes is by far the largest. Anyone who wants to make a podcast available on iTunes can do so for free. A podcast publisher simply records an audio file, uploads the file to a blog or other hosting server, then sends the RSS feed to Apple (copyrighted material cannot be used without permission, with violators risking banishment from iTunes). Files are discovered in the search feature of the iTunes music store, and listings seamlessly connect the user with the server hosting the podcast. This creates the illusion that Apple serves the file even though it resides on a publisher's servers. While blogs have made stars of some unknowns, the most popular podcasts are from mainstream media outlets. A recent visit to the podcasting section of iTunes showed that eight of the top ten most popular podcasts were high-quality productions of mainstream media programs, including offerings from CBS, Comedy Central, NPR, and PBS.

In contrast to iTunes, YouTube actually hosts video on its own servers, so all you need to do is shoot a video and upload it to the site. YouTube is also a bastion of amateur video, with the "most viewed clips" shot and uploaded by nonprofessionals. Much of this *rich media* content can be distributed or streamed within another website, blog, or social network profile.

### KEY TAKEAWAYS

- RSS fosters the rapid sharing and scanning of information, including updates from Web 2.0 services such as blogs, wikis, and social networks.
- Folksonomies allow users to collaboratively tag and curate online media, making it easy for others to find useful content.
- Mashups promote the useful combination of different web services, such as maps and other information feeds.
- Virtual Worlds allow users to interact with and within a computer-generated alternate reality.
- Internet media is increasingly becoming 'richer', leveraging audio, video, and animation. Organizations and users are creating and distributing rich media online, with interesting content spreading virally.

### The Wisdom of Crowds and Prediction Markets

Many social software efforts leverage what has become to be known as the *wisdom of crowds*. In this concept, a group of individuals (the crowd often untrained amateurs), collectively has more insight than a single or small group of trained professionals. Made popular by author James Surowiecki (whose best-selling 2004 book carried the same name), the idea of crowd wisdom is

at the heart of wikis, folksonomy tagging systems, and many other online efforts. An article in the December 15, 2005, issue of *Nature* positively comparing Wikipedia to Encyclopedia Britannica lent credence to social software's use in harnessing and distilling crowd wisdom.

The crowd isn't always right, but in many cases where topics are complex, problems are large, and outcomes are uncertain, a large, diverse group may bring collective insight to problem solving that one smart guy or a professional committee lacks. One technique for leveraging the wisdom of the crowds is *prediction markets*, where a diverse crowd is polled and opinions aggregated to form a forecast of an eventual outcome. The concept is not new. The stock market is arguably a prediction market, with a stock price representing collective assessment of the discounted value of a firm's future earnings. But Internet technologies are allowing companies to set up predictive markets for exploring all sorts of problems.

Consider Best Buy, where employees are encouraged to make forecasts, and are offered small gifts as incentives for participation. The idea behind this is simple the "blue shirts" (Best Buy employees) are closest to customers. They see traffic patterns and buying cycles, can witness customer reactions firsthand, and often have a degree of field insight not available to senior managers at the company's Minneapolis headquarters. Harness this collective input and you've got a group brain where, as "Wisdom of the Crowds" proponents often put it, "the we is greater than the me." When Best Buy asked its employees to predict gift card sales, the "crowd's" collective average answer was 99.5% accurate; experts paid to make the prediction were off by 5%. Another experiment predicting holiday sales was off by only 1/10 of 1%. The experts? Off by 7%!

In an article in *The McKinsey Quarterly*, Surowiecki outlined several criteria necessary for a crowd to be "smart". The crowd must:

- be *diverse*, so that participants are bringing different pieces of information to the table
- be *decentralized*, so that no one at the top is dictating the crowd's answer
- *summarize* people's opinions into one collective verdict
- And the people in the crowd need to be *independent*, so that each focuses on information rather than the opinions of others

Google, which runs several predictive markets, underscored these principles when it found that predictions were less accurate when users were geographically proximate, meaning folks in the same work group who sat near one another typically thought too much alike. Poorer predictive outcomes likely resulted because these relatively homogeneous clusters of users brought the same information to the table (yet another reason why organizations should hire and cultivate diverse teams).

Many firms run predictive markets to aid in key forecasts, and with the potential for real financial payoff. But University of Chicago law professor Todd Henderson warns predictive markets may also hold legal and ethical challenges. The Securities and Exchange Commission may look askance at an employee who gets a heads-up in a predictive market that says a certain drug is going to be approved or fail clinical trials. If she trades on this information is she an insider, subject to prosecution for exploiting proprietary data? Disclosure issues are unclear.

Gambling laws are also murky, with Henderson uncertain as to whether certain predictive markets will be viewed as an unregulated form of betting.

Publicly accessible prediction markets are diverse in their focus. The Iowa Electronic Market attempts to guess the outcome of political campaigns, with mixed results. Farecast.live.com claims a 75% accuracy rate for forecasting the future price of airline tickets. The Hollywood Stock Exchange allows participants to buy and sell prediction shares of movies, actors, directors, and film related options. The exchange, now owned by investment firm Cantor Fitzgerald, has picked Oscar winners with 90% accuracy. And at HedgeStreet.com, participants can make microbets, wagering as little as \$10 on the outcome of economic events, including predictions on the prices of homes, gold, foreign currencies, oil, and even the economic impact of hurricanes and tropical storms. HedgeStreet is considered a market and is subject to oversight by the Commodity Futures Trading Commission.

#### KEY TAKEAWAYS:

- Many web 2.0 efforts allow firms to tap the wisdom of the crowds, identifying collective intelligence.
- Prediction markets tap crowd opinion with results that are often more accurate than the most accurate expert forecasts and estimates.
- Prediction market are most accurate when tapping the wisdom of a diverse and variously skilled and experienced group, and are least accurate when participates are highly similar.

### **Crowd Sourcing**

The power of Web 2.0 also offers several examples of the democratization of production and innovation. Need a problem solved? Offer it up to the crowd and see if any of their wisdom offers a decent result. This phenomenon, known as *crowdsourcing*, has been defined by Jeff Howe, founder of the blog crowdsourcing.com and an associate editor at Wired, as “the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call.”

Can the crowd really do better than experts inside a firm? At least one company has literally struck gold using crowdsourcing. As told by Don Tapscott and Anthony Williams in their book *Wikinomics*, mining firm Goldcorp was struggling to gain a return from its 55,000-acre Canadian property holdings. Executives were convinced there was gold in them tar hills, but despite years of efforts, the firm struggled to strike any new pay dirt. CEO Rob McEwen, a former mutual fund manager without geology experience who unexpectedly ended up running Goldcorp after a takeover battle, then made what seemed a Hail Mary pass--he offered up all the firm’s data (some 400 megabytes), on the company’s website. Along with the data, McEwen ponied up \$575,000 from the firm as prize money for the Goldcorp Challenge to anyone who came up with the best methods and estimates for reaping golden riches. Releasing data was seen as sacrilege in the intensely secretive mining industry, but it brought in ideas the firm had never considered. Taking the challenge was a wildly diverse group of “graduate students, consultants, mathematicians, and military officers.” Eighty percent of the new targets identified by entrants

yielded “substantial quantities of gold.” The financial payoff? In just a few years a \$100 million firm grew into a \$9 billion titan. For Goldcorp, the crowd coughed up serious coin.

Netflix followed Goldcorp’s lead, offering anonymized data to any takers, along with a \$1 million prize to the first team that could improve the accuracy of movie recommendations by 10%. A little over a year after the program’s launch, top performers within striking distance of the prize include a team from AT&T Labs, researchers from the University of Toronto, a team of Princeton undergrads, and the proverbial “guy in a garage” (and yes, that’s his user name). Other crowdsourcers include Threadless.com, which produces limited run T-shirts with designs users submit and vote on. Marketocracy runs stock market games and has created a mutual fund based on picks from the 100 top-performing portfolios. Just under seven years into the effort, the firm’s m100 Index reports a 75% return versus 35% for the S&P 500. The St. Louis Cardinals baseball team is even crowdsourcing. The club’s One for the Birds contest calls for the fans to submit scouting reports on promising players, as the team hopes to broaden its recruiting radar beyond its classic recruiting pool of Division I colleges.

There are several public markets for leveraging crowdsourcing for innovation, or as an alternative to standard means of production. Waltham, Massachusetts based InnoCentive allows “seekers” to offer cash prizes ranging from \$10,000 to \$100,000 for “challenge prizes.” Over 120,000 “solvers” have registered to seek solutions for tasks put forward by solvers that include Dow Chemical, Eli Lilly, and Procter & Gamble. Among the findings offered by the InnoCentive crowd are a biomarker that measures progression of ALS. Amazon.com has even created an online marketplace for crowdsourcing called Mechanical Turk. Anyone with a task to be completed or problem to be solved can put it up for Amazon, setting their price for completion or solution. For its role, Amazon takes a small cut of the transaction.

Not all crowdsourcers are financially motivated. Some benefit by helping to create a better service. Facebook leveraged crowd wisdom to develop versions of its site localized in various languages. Facebook engineers designated each of the site’s English words or phrases as a separate translatable object. Members were then invited to translate the English into other languages, and rated the translations to determine which was best. Using this form of crowdsourcing, 1,500 volunteers cranked out Spanish Facebook in a month. It took two weeks for 2,000 German speakers to draft Deutsch Facebook. How does the Facebook “poking” concept translate? The majority of users decided on “dar un toque” in Spanish, “anklopfen” in German, and “envoyer un poke” in French. Vive le crowd!

#### KEY TAKEAWAYS:

- Crowdsourcing tackles challenges through an open call for to a broader community of potential problem solvers. Examples include Gold Corp’s discovering of optimal mining locations in land it already held, Facebook’s leverage of its users to create translations of the site for various international markets, and Netflix solicitation of improvements to its movie recommendation software.

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## **About the Author:**

John Gallagher is a member of the Dept. of Information Systems in Boston College's Carroll School of Management. Prof. Gallagher teaches courses and conducts research at the intersection of technology and strategy, and has published several papers on the phenomenon of network effects . He leads the School's TechTrek programs, co-leads the Asian field study program, and has consulted to and taught executive seminars for several organizations including Accenture, Alcoa, Brattle Group, ING Group, Patni Computer Systems, Staples, State Street, and the U.S. Information Agency. Writings, podcasts, course wiki, blog (The Week in Geek), and research by Prof. Gallagher can be found online at [www.gallaughner.com](http://www.gallaughner.com).

A special thanks to my Boston College colleagues Rob Fichman and Jerry Kane for their assistance and feedback on this chapter. Any errors or other weirdness are entirely my own fault.

This reading is available to faculty for non-commercial use. Enjoy! If you do use it, please send an e-mail to [john.gallaughner@bc.edu](mailto:john.gallaughner@bc.edu). More chapters and cases will follow in Professor Gallagher's forthcoming book "Information Systems: A Manager's Guide to Harnessing Technology", to published (in both free online and low-cost print version) by Flat World Knowledge ([FlatWorldKnowledge.com](http://FlatWorldKnowledge.com)). Thanks!

**TABLE: MAJOR WEB 2.0 TOOLS**

	<b>Description</b>	<b>Features</b>	<b>Technology Providers</b>	<b>Use Case Examples</b>
Blogs	<p>Short for "weblog" - an online diary that keeps a running chronology of entries. Readers can comment on posts. Can connect to other blogs through blogrolls or trackbacks.</p> <p><b>Key uses:</b> Share ideas, obtain feedback, mobilize a community.</p>	<ul style="list-style-type: none"> <li>• Ease of use</li> <li>• Reverse chronology</li> <li>• Comment threads</li> <li>• Persistence</li> <li>• Searchability</li> <li>• Tags</li> <li>• Trackbacks</li> </ul>	<ul style="list-style-type: none"> <li>• Blogger (Google)</li> <li>• WordPress</li> <li>• SixApart (TypePad and Movable Type)</li> </ul>	<p><b>Corporate Users:</b> News outlets Sun Microsoft GM</p>
Wikis	<p>A website that anyone can edit directly from within the browser.</p> <p><b>Key uses:</b> Collaborate on common tasks or to create a common knowledge base.</p>	<ul style="list-style-type: none"> <li>• All changes are attributed</li> <li>• A complete revision history is maintained</li> <li>• Automatic notification of updates</li> <li>• Searchability</li> <li>• Tags</li> <li>• Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• MediaWiki</li> <li>• SocialText</li> <li>• Confluence</li> <li>• JotSpot (Google)</li> <li>• WetPaint</li> <li>• Microsoft SharePoint</li> </ul>	<p><b>Corporate Users:</b> Wikipedia.com Intuit Amapedia eBayWiki</p>
Electronic Social Network	<p>Online community that allows users to establish a personal profile, link to other profiles (i.e. friends), and browse the connections of other, and communicate with members via messaging, posts, etc.</p> <p><b>Key Uses:</b> Discover and reinforce affiliations. Identify experts. Message individuals or groups. Share media.</p>	<ul style="list-style-type: none"> <li>• Detailed personal profiles using multimedia</li> <li>• Affiliations with groups</li> <li>• Affiliations with individuals</li> <li>• Messaging and public discussions</li> <li>• Media sharing</li> <li>• "Feeds" of recent activity among members</li> </ul>	<ul style="list-style-type: none"> <li>• MySpace</li> <li>• Facebook</li> <li>• LinkedIn</li> <li>• SelectMinds</li> <li>• LiveWorld</li> <li>• IBM/Lotus Connections</li> </ul>	<p><b>Corporate Users:</b> Deloitte Consulting Goldman-Sachs Reuters IBM</p>

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