Implementing Enterprise 2.0
Balancing social networking and community with collaborative tools and services

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The term Enterprise 2.0 is gaining traction in organizations across the globe. This article investigates the underlying concepts of Enterprise 2.0, its relationship with Web 2.0, and the various tools and services that apply to it. Examine the benefits of employing Enterprise 2.0 in your business, and explore some of the potential drawbacks associated with it. Use this article to help you decide how to best implement Enterprise 2.0 in your organization.

What is Enterprise 2.0?

Enterprise 2.0 is the concept of using tools and services that employ Web 2.0 techniques such as tagging, ratings, networking, RSS, and sharing in the context of the enterprise. The term “Enterprise 2.0” was coined by Andrew McAfee of Harvard Business School in an article in the spring 2006 issue of the Sloan Management Review (see Resources). His idea of Enterprise 2.0 makes use of Web 2.0 technologies such as wikis and blogs inside the corporate intranet. In addition to this, many organizations are also publishing corporate blogs on their Web sites and inviting customers and clients to openly comment and discuss their content as part of Enterprise 2.0. Similarly, many companies are creating enterprise wikis that can be viewed and edited by anyone in the world.

Enterprise 2.0 tools and services take advantage of social software features such as social bookmarking and linking, tagging, rating, user commenting and discussion, open creation and editing policies, syndication via RSS feeds (see Figure 1), and so on. These tools also incorporate sharing and networking to invite and encourage collaboration and contribution.
The relationship between Enterprise 2.0 and Web 2.0

A topic that is closely related to Enterprise 2.0 is Web 2.0. It is important to note, however, that the concepts are not one and the same, but rather they are two individual areas that are built on top of similar foundations. The term Web 2.0 describes the shift in focus from static and singular media to dynamic, interactive community-oriented social media.

A fine example of this shift is the increasing popularity of the blogosphere. While blogs have been around much longer than the term Web 2.0, they are one of the finest examples of what Web 2.0 is all about. Before blogs, some people published personal Web sites. These were static pages that usually provided biographical information about the owner of the Web site and potentially some photos of his or her family and pets, along with a page containing information on how to be contacted. All of this information is one-way and static. There is no room for interactivity, and as a result, the content becomes dated and useless before long. Once people have seen your photos the first time, they are not likely to feel the need to see them again. If you put new photos on the site, your visitors have no way of knowing you have done so without revisiting the site.

Enter Web 2.0 and blogging. Most popular blogging platforms such as WordPress, Moveable Type, and Blogger allow for the creation of "pages" where you can put biographical information (and easily update it as it becomes outdated) and "posts" where you can write your articles and express your opinions. But blogs are much more than an easy-to-use content management system. Blogs automatically syndicate your content using RSS feeds so that people can "subscribe" to your Web site using an RSS reader and receive timely updates whenever you publish new content. Blogs allow your visitors to comment on your posts, allowing interaction and discussion about the
topics at hand. Also, features such as trackbacks and pingbacks notify you when someone has mentioned your blog post on his or her Web site or blog.

The Enterprise 2.0 view of blogging is slightly different. A corporate blog will often be a multi-user blog with multiple authors and contributors, or it will be a platform made up of many different blogs, each individually owned by a different person in the organization. Also, corporate blogging is not so much an extension of any prior concept. Sure, many companies posted bios for their employees on their Web sites in the past, but these were rarely controlled by the employees themselves. Blogging opens the door for employees to express their thoughts on the products and services they are working on and to interact with the community on any new ideas they may have for these products and services (see Figure 2).

Figure 2. Oracle blogs, featuring multiple blog contributors (see tag cloud on right)

Many people believe that Enterprise 2.0 is the use of consumer-oriented Web 2.0 services by businesses—services such as Facebook, MySpace, Blogger, and twitter. Going forward, however, the focus on Enterprise 2.0 is going to be in terms of products and services that are specifically targeted at businesses. Major software vendors, including IBM®, Microsoft®, Oracle®, and SAP® have all released Enterprise 2.0-centric products and platforms recently, and it is clear Enterprise 2.0 is an important aspect of the strategy of major players going forward. Forrester Research released a report in April 2008 stating that Enterprise 2.0 will be a USD 4.6 billion industry by 2013, and you can expect a high percentage of this to go to the major software vendors.
Enterprise 2.0 essentials

Moving on from the concepts behind Enterprise, below are some of the ways that Enterprise 2.0 can be implemented.

Folksonomy, or collaborative tagging

In the early days of the World Wide Web, Web site directories such as Yahoo! used a fixed hierarchy known as taxonomy to organize the links in their directory. This is also the case in most document management or file systems—documents and files are organized into directories and subdirectories that must be created first in order to be used. Web 2.0 (and now Enterprise 2.0) suggests the use of folksonomy, the concept of collaborative tagging, instead. This concept suggests that users (not just the creator of the document or file) should be allowed to enter free-form tags to describe and categorize the content they are creating, editing, or viewing. This categorization makes it easier for the document to be found by others looking for the same information at a later date.

Another key feature has arisen from the continued popularity of tagging: tag clouds. Tag clouds allow for instant visual recognition of popular tags by distinguishing the importance of particular terms by increasing font size or using color. Tags are generally listed alphabetically, and clicking on the tag navigates to a page with other pages that are related to that tag. Tag clouds are a prominent feature on many Web 2.0 services such as Flickr and Delicious (see Figure 3).
Figure 3. The Delicious tags page

Social bookmarking

Building on the concept of tagging is the idea of social bookmarking. Social bookmarking allows people to store, manage, and share their bookmarks on the Web. Such services usually suggest that users enter a series of tags with each bookmark to make it easier to find at a later point. Not only has social bookmarking made it much easier to manage catalogs of thousands of bookmarks (try managing such a collection in your browser), but it has also made it easier to share bookmarks with others via RSS feeds. Several tools are available that make it simple for blog and wiki visitors to submit pages to their favorite social bookmarking service in a snap.

Social bookmarking is an integral part of Enterprise 2.0, with offerings such as IBM Lotus Connections (coming soon to developerWorks; see Resources) and Connectbeam Spotlight offering social bookmarking features aimed squarely at the enterprise.

User rating and commenting

Opening content up by allowing users to rate and comment on your content may seem like a daunting exercise to many businesses. Many companies don't like the idea of allowing an open forum on their turf where people can freely criticize and slate their products and services. On the other side of the coin, however, it does open the gates to free-flowing and highly valuable customer feedback and opinions. It also creates a channel of communication that can be used...
to get to know your customers better and helps forge a lasting relationship where customers are satisfied that you're willing to listen to what they have to say (see Figure 4).

**Figure 4. Customer ratings and reviews on Apple's online store**

![Customer Rating](image)

![Most Recent Reviews](image)

**RSS feeds and syndication**

RSS has been around since the late 1990s, but it has been one of the key aspects of the success of Web 2.0 services. A Web 2.0 tool that does not feature RSS in some shape or fashion is rare these days, as the power and simplicity of syndicating your content using this technology is so great. Customers can receive instant notification in their RSS readers when you launch a new product, post a new blog post, or add new pictures to your Flickr account. Users can subscribe to your Delicious bookmarks and Twitter updates so they are always up-to-date with your latest offerings.

**Mashups and Web APIs**

Mashups and Web APIs have offered consumers easy ways of providing Rich Internet Applications that are based upon data sources such as Google Maps for years now. Many useful Web applications have popped up all over the Web as a result, as they mix and mash data from several sources to provide some useful purpose to their end users.

Mashups (see Figure 5) really come into their own, however, when they are tied to a business function. Companies hold all sorts of data about their clients, employees, suppliers, products, services, and financials. They use an array of systems to manage and interact with this data on a daily basis, and as a result, the amount of data they store can be huge. This data is often stored for recording purposes, and may often be used with business intelligence tools to give some value. By mixing this data with the many web APIs that are available, however, companies can create some amazing applications that can add value and reduce costs on a large scale.
Social networking in the enterprise

Over the past decade, social networks such as Facebook and MySpace have taken the world by storm, with hundreds of millions of users all across the globe. Aimed squarely at the younger generation of net-goers, these networks are the essence of Web 2.0 and what it's all about. Many organizations look at these social networks as a nuisance and a burden on employee productivity, and in many cases they may be correct. Some companies have even gone so far as to ban the use of social networks in the organization, preventing their use by blocking them with their corporate firewalls.

An important aspect of these services that cannot be ignored, however, is the way they allow people to connect with others, building a network of friends and acquaintances. Many of these connections may work for other companies that are potential or existing clients, and this employee's friendship could potentially result in a sales lead. For many years, corporate executives have used the golf course as their social networking base. Now they can use social networks for this task and concentrate on their game when playing golf.

The potential for loss of productivity with these services is still high of course, but this is eliminated to a certain extent with business-oriented social networks such as LinkedIn and PairUp. LinkedIn is a massive network of professionals, each linked to other users as a "Connection". A LinkedIn profile is much like a resume, detailing employment and education history, while allowing people to provide recommendations for one another, much like the concept of references. LinkedIn has several uses in business, one of the most important being recruitment. Hiring new people can be expensive, time consuming, and in the end you may often not end up with the right person for the job. LinkedIn (see Figure 6) can help ease the pain associated with the recruitment process by putting you in touch with highly skilled professionals who are looking for new challenges.
Enterprise 2.0 social networks are also emerging, such as the IBM Bluehouse network (see Figure 7). These services are aimed at medium to large businesses that want to create an internal social network featuring contact information, blogs and wikis, and reporting structure information for all the employees in a company. The enterprise social network is much like a detailed and personalized corporate directory with features like tagging, social bookmarking, and commenting—all integral components of the network.
Now I'll show you some collaborative tools and services for implementing an Enterprise 2.0 strategy.

**Blogs**

The starting point for most organizations looking to invest in an Enterprise 2.0 strategy is the creation of a corporate blog. Often this starts off as a single blog maintained by one person published on the corporate intranet. Other employees can leave comments on posts and subscribe to the blog's RSS feed. As this blog starts to grow, perhaps the blog is expanded to allow for multiple contributors. As the number of contributors grows, you may need to install a platform that offers multiple blogs, with each contributor, or perhaps each product team, having its own blog.

Once your company is actively blogging inside your intranet, it may be time to think about publishing a blog on your company's Web site that can be viewed by your customers and potential new customers alike, allowing you to take in positive and negative feedback and find out the exact thoughts of your clients. Posting regularly about product updates will allow your customers to receive up-to-the-minute notifications via RSS. You could even take it a step further and produce podcasts (basically audio blog posts) or video blog posts.

**Wikis**

Wikis are a group of Web pages that can be edited by anyone who accesses them. The most famous example of a wiki is the online encyclopedia, Wikipedia. Wikis usually allow anyone to create new pages and to view and edit existing ones using a WYSIWYG (What You See Is What
You Get) editor. The wiki will keep a revision history of previous versions of the page and any comments made by the person who made the edit. This allows authors to revert to a previous version of the page should incorrect information be posted.

Wikis are becoming a very popular way of managing documents and information inside companies and are an important aspect of Enterprise 2.0. They allow true collaboration on the documents as anyone with access to the page can edit it, making any relevant changes or posting updated content. Most Enterprise 2.0 vendors provide integrated wikis as part of their platforms.

Conferencing and messaging tools

Conferencing tools have been around for a long time now, but in the past they have suffered by requiring everyone attending the conference to have the same software installed on their computers. This meant, for example, that users of Mac OS®, Linux®, and other non-Windows® operating systems could not participate in a Microsoft NetMeeting conference.

The answer to this problem is Web conferencing, and tools and services in this area are growing in popularity. Web conferencing tools usually come as either hosted services or downloadable modules that can be deployed to an organization's own Web server. Common features of Web conferencing software include slide show presentations, real-time instant messaging and chat, VoIP for audio, video functionality, whiteboards, screen sharing facilities, and the ability to record the conference so it can be viewed again at a later date.

The benefits of employing Enterprise 2.0 in an organization

It is important for organizations to understand why they are implementing an Enterprise 2.0 strategy. Following are some of the benefits.

Information access

Information stored in a system that is Enterprise 2.0-enabled allows employees and other stakeholders in the organization to access information that is timely, up-to-date, and relevant to their needs from anywhere in the world, as long as they have Internet access. With the increase in availability in Wi-Fi and 3G networks, they can get this information on their mobile devices instantly whether they are waiting in an airport or sitting at home.

Instant notification

When new updates are made to your blog or wiki, subscribers to your company's RSS feeds can get instant notification via their RSS readers on their computers or cell phones. No longer do people have to keep returning to your Web site to see if it has been updated. With RSS, when people do revisit your site, you'll know it is for another specific purpose.

Simplicity and cost effectiveness

Web 2.0 and indeed Enterprise 2.0 strive to make it simpler and less expensive for individuals and businesses alike to share information, communicate with each other, and collaborate on projects.
Enterprise 2.0 services are, by their nature, simple to set up and use. Many Web 2.0 services are available free-of-charge, but even pay-for Enterprise 2.0 tools tend to be inexpensive compared to their bloated predecessors.

**Potential pitfalls and issues**

Below are some potential pitfalls and issues in implementing an Enterprise 2.0 solution.

**Security**

A major issue with Enterprise 2.0 tools is the area of security. The World Wide Web is renowned for being a major source of security threats in terms of hackers, viruses, malware, and so on. Traditionally, companies maintained a tight seal on any information that was exposed to the outside world and held strict controls on their internal document management systems. Wikis, for example, allow anyone to create and edit content—employees can potentially (knowingly or unknowingly) publish information on an external wiki that was meant for internal eyes only. This can lead to major consequences should something like detailed product design documents fall into the hands of competitors.

Web 2.0 is all about sharing and openness, but Enterprise 2.0 is less so. The major software vendors are all working on Enterprise 2.0 platforms, and security issues such as these are certain to be addressed. The important thing for organizations implementing an Enterprise 2.0 system is that they ensure a correct balance of security and protection and openness and sharing. Without security, confidential information may be at risk, but without sharing, Enterprise 2.0 is defunct.

**Loss of productivity**

A huge concern for companies when adopting new and emerging technologies that incorporate ideas such as social networking and social bookmarking is that employees will waste a lot of time "playing" with such features. Many major companies have already taken steps to ban employees from using social networks such as MySpace and Facebook, and they may have the same concerns about any corporate social tools.

It is important that companies try to find a balance here, where the usefulness of the tools is not overshadowed by employees wasting valuable time using them. That being said, corporate social networks are unlikely to feature "Poke" applications and customizable layouts, which are a common source of procrastination in the workplace. They are more likely to center on building connections with other employees, perhaps in other parts of the organization, and creating relationships to better their productivity, not reduce it.

**Lack of adoption by staff**

Depending on the age profile of your staff, you may run into issues with lack of adoption and a fear of the unknown. Younger employees are going to be more open to the idea of trying out new features and software and spending some time helping the system to grow. Older employees, many of whom may not like using computers and avoid doing so as much as possible, are less likely to embrace emerging concepts such as Enterprise 2.0.
Summary

Enterprise 2.0 is not a cutting edge phenomenon. The technologies surrounding it are certainly not new, and the concepts behind it have been prevalent in Web 2.0 consumer-oriented services for a number of years now. Enterprise 2.0 has been slow to catch on because companies were afraid that it was just another catchy buzzword that would die away as quickly as it came along. They were afraid that Web 2.0 would not last, and before long Web 3.0 would arrive and all their hard work implementing new technology would be deprecated. They were also slow to adopt products and services from companies that have been in existence for just several months rather than several decades. A plethora of new companies have formed around the provision of Web 2.0 and Enterprise 2.0 services, and it remains to be seen how many of these will be there in the long run.

What is certain, however, is that Enterprise 2.0 is finally ready to launch into the mainstream business market. Major software vendors such as IBM, Microsoft, and Oracle are all readying new technology offerings that are loaded with Enterprise 2.0 features such as blogs, wikis, social networking, and social bookmarking tools—so expect to see such tools in your business very soon.

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