Cognetics Corporation

Web 2 and You

Web 2.0 Made Simple

Charles B. Kreitzberg

2007

This page intentionally left blank for double-sided copying.

Introduction

Unless you have been living off planet recently, you've most likely heard about Web 2.0. You may connect it with web offerings like Facebook, My Space, You Tube or Second Life and with tools like blogs, wikis and discussion forums. What you may not realize is how much Web 2.0 will shape how you do business in the next few years.

Growth and maturity almost always occurs in spurts. As children grow they progress through different stages and the change is profound. A teenager is not just a larger version of her younger self but a qualitatively different person. The same is true of businesses which change as they pass through stages from start up to maturity.

A similar process has occurred with the World Wide Web. Over the past 16 years, the Web has grown and matured. During that time, millions of people, organizations and government have made immense intellectual, monetary and sweat investments in the web. The result is that we now have an environment that

The first step is to understand the basics.

What do I have to do to get Web 2.0?

Nothing. If you have a reasonably recent web browser and a reasonably fast connection to the Internet,
you already have it.

What is Web 2.0?

There is only one World Wide Web. Web 2.0 is not a new web. It's a convenient term for a collection of capabilities that open up new types of website.

These capabilities include:

- Collaboration and communication among people located anywhere on the planet.

- Large, small and 'micro' on-line communities where people exchange ideas and share resources.

- Collections of multimedia resources including video and audio ("podcasts").

The new capabilities have enormous potential to change the way that people and organizations communicate and do business.

Is Web 2.0 really important or is it marketing hype?

It's very important. With every new development you get skeptics and naysayers. Sometimes they are right; in this case they are not. What is so important about Web 2.0 is that it changes what people do online. It offers new ways to communicate and collaborate with the public, with customers, with peers and with staff.

One of the main shifts with Web 2.0 is that the Internet becomes a two-way street. Instead of just viewing web sites, with Web 2.0, users create and manage a lot of the data. Think about where the 65,000 video clips uploaded daily to YouTube come from or the nearly 2 million articles in Wikipedia and you will get the idea. The same idea can be applied to internal teams creating collaborative knowledge.

So what's different about Web 2.0?

Web 1.0 – the original web – was built around a language called HTML. HTML does well at presenting information but is not a true programming language. A few companies like Amazon, eBay and Expedia took the capabilities of Web 1.0 quite far. But for the most part, Web 1.0 was about presenting products and services and simple e-commerce.

Learn More

Wikipedia is a well-known Web 2.0 collaborative encyclopedia. Their article on Web 2.0 has been contributed to and edited over 500 times by individuals You can learn more about Web 2.0 and also get a sense of how wikis function..

Read it at: http://en.wikipedia.org/wiki/Web_2

Recognizing the need for more powerful capabilities, programmers set out to build tools to make the web far more powerful. It was a tough job that took more than a decade. But what emerged as Web 2.0 makes it possible to design web sites that go beyond "brochureware" and are as powerful as traditional software.

Meanwhile companies like Comcast and Verizon were bringing fast, always-on broadband to businesses and consumers. Broadband (which you may know as Cable, DSL, FIOS, or T1) makes it possible to move large amounts of data quickly and present it as music and video. With Broadband users can experience a rich web environment in which it has become possible to create powerful applications.

What is the new technology that supports Web 2.0?

Unless you are a programmer you don't need to worry too much about the technology. However, there are a few technologies of which you should be aware:

- Powerful programming environments that include Microsoft's .Net, PHP, and Java.

- AJAX – no longer just a Greek hero or a foaming cleanser -- AJAX is a technique that allows programmers to create web pages with rich user experiences. To see a small example of AJAX in action, take a look at Google Maps (http://maps.google.com) and note how you can move the map around and zoom in and out.

- Web Services – a technology that lets web sites exchange information even when they are written and owned by different companies.

- RSS – a technology that allows web sites to let you know when they have new information that might interest you.

What's important is that technologies that make up Web 2.0 are the underpinnings that make a whole new set of web applications possible.

To read more about these terms, see the Addendum: Web 2.0 Buzzwords.

I keep hearing about Web 3.0. What's that?

Web 3.0, when it arrives, will allow companies to create far more powerful search and knowledge applications than are possible today. But Web 3.0 is still in the design stage. Once it is created, there will be a lag of several years while tools and applications are being built. So it's not something most of us need to focus on right now. But keep watching because Web 3.0 is going to offer a lot of opportunity.

Figure 1: An Evolutionary View of the Web

What	When	Also Called	What It Does
Web 1.0	1992 - now	The Hypertext Web	Presents information and supports simple e-commerce.
Web 2.0	2004 – now	The Social Web	Communities with collaboration and communication
Web 3.0	Not Yet	The Semantic Web	Powerful searching and knowledge management

The Tools of Web 2.0

What makes Web 2.0 so useful are the tools that support communication and collaboration. With these tools you can engage customers, prospects and peers. Or you can use these tools internally to improve productivity.

In this article, we focus on five types of Web 2.0 tools: blogs, discussion forums, wikis, social networking, and media repositories. There are many products in each category and many are available free or at low cost so it's easy to explore them. But understand that it takes a lot of dedication to get these tools to yield good results. What you need are (1) a good idea and (2) someone willing to put in the time, energy and creativity to build participation.

Look at a successful Web 2.0 tool and you will find that a large part of its value comes from information added by users. You Tube would not be compelling if no one uploaded video clips and others didn't rate and comment on them. My Space would be empty if people didn't create personal spaces with photos, songs, blogs and other content that interests their friends. A core characteristic of Web 2.0 tools is that they only work well when they engage an active group of users. In most cases you will find that attracting an active user community takes a lot of effort.

The best way to get started is to get clear on what you want to accomplish and how a blog, wiki, discussion group or other tool will help you achieve your goal. Then get started. Get as much visibility as you can; deliver consistent value and be prepared to evolve your ideas as you gain experience and knowledge.

Choosing Your Tool

Web 2.0 tools are not all that different from each other. For example, a blog is a lot like a discussion group and a wiki. Each has a slightly different emphasis; it's important to choose the one which best fits your business goals. We'll take a deeper look at each of the tools in the next section.

Figure 2: Overview of Common Web 2.0 Tools

Tool	When to Use	Examples for Each Type of Online Neighborhood		
		Mass Media	**Niche Community**	**Business Team**
Blog	To present information to an audience and invite them to comment	http://www.engadget.com http://www.boingboing.net/	http://www.zeldman.com/ http:///www.leadersintheknow.info	CEO posts company information Project manager posts to a project team
Wiki	To enable a group of people to work together by sharing and organizing a repository of knowledge	http://www.wikipedia.com http://www.wikihow.com	http://www.wetpaint.com/ http://en.wikibooks.org/	Software development group creating collaborative documentation A company collecting and refining competitive information
Forum	To encourage discussions about multiple topics	http://tabletalk.salon.com/ http://www.well.com	http://pages.ebay.com/community/boards/index.html http://boards.fool.com/	A project team A user support discussion group
Social Network	To enable people with the same interests to be able to find each other, communicate and share content	http://www.myspace.com http://www.facebook.com http://www.orkut.com/	http://www.tribe.net/ http://www.classmates.com	Software for locating people with specific skills in a global enterprise
Media Repository	To make video, audio and print resources available to a community	http://www.youtube.com http://video.on.nytimes.com/	http://creativecommons.org/ http://www.podcast.net/	Internal repositories of documents or media

What's Your Neighborhood Like?

It's convenient to think of three neighborhoods within which you will attract individuals to participate in your online community.

The General Public

The public area is the playing field for business to consumer activity. This is the environment where My Space, Facebook and Wikipedia operate. The upside is the opportunity to attract very large audiences. The difficulty is getting heard above the noise and generating enough attention to start the viral marketing process.

A Niche Community

A niche community could be built around customers, professional colleagues, or any group that shares a common interest and is interested in knowledge sharing. Because potential members of niche communities share a common interest, they can often be reached more easily than is possible with a less differentiated group.

A Business Team

Business teams use Web 2.0 tools to operate more efficiently and productively. Through communication and knowledge sharing, they can collaborate more efficiently. Web 2.0 tools are excellent for supporting virtual teams whose members are in different locations. They also make it possible to integrate partners who work for other organizations. The biggest problem is getting staff to overcome their initial resistance to using new tools.

For an interesting example of an innovative and well thought-out business Web 2.0 community that uses a number of the tools discussed here, take a look at IBM's alphaWorks Services: (http://services.alphaworks.ibm.com/

Five Key Web 2.0 Tools

In this section we will take a deeper look at the five key Web 2.0 tools outlined above.

Key Tool 1: Blogs

A blog is most like an on-line newspaper column. Blogs, originally called 'web logs,' started as on-line personal diaries in which individuals commented on a topic of interest such as politics, wine or work.

Start Blogging

Creating a blog is easy. You can install blog software on your own website (see www.wordpress.org for an example of a high quality blog platform you can download for free).

In most cases it is easier to start with a hosted service such as Typepad (www.typepad.com). With a hosted service, you can be up and running in a few minutes with no installation or IT issues for less than $50 per year. Google offers a free blog service at www.blogger.com.

Bloggers typically publish relatively brief articles that contain commentary and opinions. There is usually a way for readers to comment on the article. This makes blogs ideal for a situation in which you want to share ideas and information with an audience. The current article appears on the first page while previous posts are archived by date and topic so that readers can locate them.

Blogs can serve very small communities or very large ones. At the lowest end, some blogs are diaries intended largely for family members. At the highest end, some blogs such as engadget (www.engadget.com) and Boing Boing (www.boingboing.net) attract huge audiences.

Learn More

Take a look at the most popular blogs by pointing your web browser at:

http://technorati.com/pop/blogs/

Visit the ones that interest you to see how the authors designed their blogs and structure their posts.

For a more typical business blog, check out Leaders in the Know – a blog dedicated to leadership in the 21st Century at:

http://www.leadersintheknow.info

(Full disclosure: This author is married to the author of Leaders in the Know).

There are a lot of blogs on the Internet. Technorati (www.technorati.com) which is a blog search engine – a kind of Google for blogs – reported in May that it was indexing 71 million blogs. Many of these are personal blogs that are infrequently updated.

How can you use a blog in business? For most businesses, the goal of a customer facing blog is to create a community to promote products, offer customer service, and get customer input. For small companies, a blog may be a major communications channel while larger companies may use blogs for back channel communications – getting ideas out informally.

A study released in March by Melcrum Publishing (www.melcrum.com) of two thousand managers working in internal and corporate communications found that 55% are using blogs or planning to start them in the next year. Some of these blogs are used for customer communication while others foster internal collaboration and facilitate communication between senior executives and staff.

Despite the enthusiasm for blogs in business, 70% of the companies surveyed have no policies about what constitutes appropriate blogging and few know how to monitor what is said about them online. This requires attention because there can be legal and customer relationship issues related to electronic communications.

Key Tool 2: Wikis

The term wiki comes from a Hawaiian word meaning "quick." Wikis make it quick and easy to create and edit documents that are then available as web pages. Wikis are about content – many of them are structured as on-line encyclopedias.

The wiki is one of the most powerful of the social computing tools for business. In its most basic form, a wiki is simply a document that a group of users can edit. What makes wikis so powerful is that it reflects the collective knowledge of its authors. Since you and I know more than either of us alone, a document to which we both are contributing is likely to be more comprehensive than one which either of us writes alone.

Start a Wiki

As with blogs, you can download software so you can run a wiki on your own website or you can sign up for a hosted service.

The hosted service is the easier route and many are free. A good place to start looking is on Wikipedia which has a comprehensive article titled "Comparison of wiki software."

If you want a hosted wiki, you can start by checking out www.wetpaint.com and www.wikispaces.com. See www.wikimatrix.org for an extensive comparison.

When people think of wikis, they tend to focus on the large public sites such as Wikipedia (www.wikipedia.com) and WikiHow (www.wikihow.com). It would be worth your time to explore both these sites to get a sense of how wikis work. WikiHow is particularly easy to understand. Find an article where you have expertise and add some edits or improvements to quickly understand how wikis work. Both Wikipedia and WikiHow allow anyone to edit articles. In a business setting you may choose to restrict the group of people allowed to edit.

In its simplest form a wiki could be a single page. For example, with a wiki you could post a draft mission statement on your intranet and invite the staff to refine and revise it. But all wikis have the ability to create additional pages and link to them. This "encyclopedia" model is very flexible and is ideal for knowledge that can be represented as a series of interlinked articles.

Wikis do not have to be targeted at a mass audience. They are ideal for smaller groups and internal teams. If you are addressing a niche market, you can use wikis to create a body of knowledge on any topic. These are becoming popular with professionals who share expertise on best practices in a particular area. For example, check out www.libsuccess.org to see a wiki created by librarians using free software. In addition, Wikipedia has created a public project to create collaborative textbooks; check it out at www.wikibooks.org.

> Use wikis for documentation, product & sales support, market research & customer service.

You can use wikis for such internal purposes as documentation, product information, competitive information, sales support, market research, and customer service.

Compared to blogs, wikis can require a lot of maintenance. The ease of editing articles, which is the basis for the wiki's collaborative power, also makes it easy for people to mess up articles, either maliciously or through ignorance. To protect against this, wikis maintain a history of all changes. It is simple to revert back to a previous version if you don't like an edit that someone has made. Wikis also have discussion pages where people can comment on an article and discuss how it should be edited. For business you may want an editor to assure accuracy and appropriateness of content.

Tool 3: Discussion Forums

Discussion forums are the oldest of the social computing tools; their roots go back to the 1980's. A forum is a community in which people conduct many conversations by posting comments online. In this way a forum is like a blog – however, while blogs are managed by one author (or a small group), any member of a forum can initiate a discussion thread. Sometimes businesses open forums for a limited time to get input on new product ideas.

Don't confuse a forum with a chat room in which the participants all need to be online at the same time.

A closely related tool is the listserv or email group where people with common interests post via email and everyone receives a copy. Emails may be sent out immediately or posts can be collected into a digest that is sent out once a day. An example is Yahoo Groups (http://groups.yahoo.com); Google has a similar offering at http://groups.google.com. The advantage of listservs is that participants receive the latest information in their email and do not have to go to the forum itself, even to reply.

Start a Forum

As with the other tools, you can download software to run a discussion forum on your own site or use a hosted service.

If you choose to download software, consider vBulletin (www.vBulletin.com) and phpBB (www.phpbb.com). Both of these forums are available through various companies in hosted versions as well.

There are many choices for a hosted service; here are a few: www.websitetoolbox.com www.forumspring.com www.runboard.com www.myfreeforum.com)

There are so many forums online that it is difficult to choose representative examples. One example of a niche forum based on common interest is www.bizymoms.com/discus (note the single "s" in the URL); another is CSM which brings together customer service managers (www.customerservicemanager.com/community/). There www.webmasterworld.com. Discussion forums are also used for providing customer service and technical support. And of course, discussion forums can be used internally for staff discussions.

Forums can grow quite large and there may be problems with malicious users (called "trolls"). In most forums you can view posts without registering but you need to register to be able to post. The forum is usually run by an individual designated as a forum administrator and moderators manage the various sections. Moderators have the ability to edit posts and block troublesome users.

Tool 4: Social Networking

Social networking software is a less-defined category than the previous tools. In the public arena, social networking tools include MySpace (www.myspace.com), Windows Live Spaces (http://spaces.live.com) and Facebook (www.facebook.com). Wikipedia has a long list of notable social networking sites (go to

www.wikipedia.com and search for "List of social networking websites").

These sites are the natural successors to the personal web pages that many people create. They may include blogs, discussion forums, photo and music galleries, and similar tools. Many of these social networking sites restrict access to an individual's space. While anyone can look at a "space," only friends (approved by the space owner) can post and share information.

Some businesses have created social networking spaces. For example Garritan Music Software, Inc. which manufactures software for musicians uses MySpace to showcase some of the compositions created with their software. You can also download a free CD of Christmas music created by Garritan users (to see the Garritan Libraries space, go to www.myspace.com and search on "Garritan").

Proctor and Gamble is using a social networking site to promote their TAG Body Spray – a fragrance aimed at teenage boys. Knowing that fact may help you understand the thinking behind their site at www.sleepless-scoremore.com – it's not for everyone. Less controversial is Scripps' cable television DIY network (go to www.diynetwork.com and click on the "My Projects" link.)

Start a Social Network

A good way to start a social network would be to create a space on MySpace, Facebook, Windows Live, or one of the other offerings listed in the Wikipedia article mentioned above.

If you want are willing to host and configure your own software, you can explore some of the open source offerings such as Drupal (www.drupal.org) and Mambo (www.mamboserver.com). However, be warned that setting up one of these sites can be a significant task.

Large enterprises are using social networking spaces to enable staff to find resources with the skills needed for specific projects. LinkedIn (www.linkedin.com) and Plaxo (www.plaxo.com) are used to help connect individuals through networking.

Tool 5: Media Repositories

The most popular media repository is YouTube (www.youtube.com). Founded in 2005, the company was sold to Google for $1.65 billion in 2006. Now that's fast growth!

These sites are the natural successors to the personal web pages that many people create.

YouTube allows users to upload video clips which made available to other users who can view, rate and comment on them. YouTube makes it easy for people to send out email links of videos they found interesting, creating a powerful viral marketing environment. According to a report in USA Today, YouTube is extremely popular with about 100 million views per day. According to Nielsen, in 2006 the site was receiving 12.8 million unique visitors; the largest segment of visitors was 12 to 17 year olds.
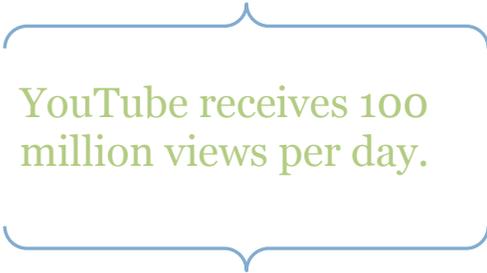
> YouTube receives 100 million views per day.

The growth of YouTube is an exciting business story but not one that you can count on repeating. Businesses are experimenting with ways to use YouTube and if you have video clips that are entertaining you might consider it. The best received clips appear to be short, funny and with a soft-sell message. Be aware of the demographics; YouTube as it exists today is better in the B2C space than the B2B space. But that may change as the technology evolves.

If videos are too expensive, you can also consider creating podcasts. These are audio programs; you can upload descriptions and a link to podcast.net or to iTunes.

Conclusion

The web continues to evolve and Web 2.0 is an important step along the way. It's not the ultimate web – there's a Web 3.0 in development and perhaps more beyond– but Web 2.0 affects so many aspects of communication and collaboration that savvy business people need to be aware of its capabilities and the opportunities it offers.

Addendum: Web 2.0 Buzzwords

Web 2.0 Buzzword	What It Means
AJAX	AJAX is a programming technique that makes web pages look and act a lot better. Instead of having to redraw an entire page every time a change is needed, AJAX allows the programmer to just change part of the page. It sounds simple but the effects are major.
mash up	A way to make different applications work together. For example, you could insert a Google Map in your website or list and sell books from Amazon in your blog.
SaaS	Software as a service. Instead of buying CD's and installing software on your hard drive, you access the software over the Internet – usually through your browser. This makes collaboration and mass communication a lot easier. Commercial SaaS products, like salesforce.com and netsuite.com, charge a monthly fee.
social web	Using the web to link people and organizations.
stack	A collection of web tools that can be used to create Web 2.0 applications. Includes a server, a database and a programming capability. The two most common are LAMP, which is open source and free, and Microsoft's .Net.
web application	A computer program that runs over the web. For example, Google's Writely is a word processor that runs over the web and is similar to Microsoft Word, which does not. Web applications make it easier for people to collaborate than traditional applications. They also can bring
web service	A technical way for web applications to exchange data. Web services make mash-ups possible.

For More Information

Contact the Author:

Charles B. Kreitzberg, Ph.D.

CEO

Cognetics Corporation

P.O. Box 386

Princeton Junction, NJ 08550

Charlie@cognetics.com

609-799-5005 ext 235

See also: www.web2and you.info