



## From the Editor

I hope everyone enjoyed the summer and the wonderful weather so far this fall—at least here in New England. This issue of Navigator has a different format from previous issues. We typically focus on initiatives in the investment management industry, the core competency of Venture. In this issue, Larry Fleischman writes about his research on the topic of Web 2.0 sparked by a conference he attended earlier in the year.

Larry Fleischman is a Project Leader with Venture FSG. He has had 15 years experience in the Investment Management Industry working in both investment systems and operations. Larry is a subject matter expert in transaction processing for derivative instruments and portfolio accounting operations and systems. Larry is a member of the NICSA Annual Conference Committee.

As always, feedback and suggestions for future issues of Navigator can be emailed to [jcavallaro@venturefsg.com](mailto:jcavallaro@venturefsg.com).

## Web 2.0—What is it?

By: *Larry Fleishman*

This past February, I attended the NISCA Annual Conference held in Florida. A highlight of the conference was the Next Mega Trends in Technology session and the discussion about Web 2.0.

Charles Berman, Senior Vice President at Fidelity Labs, began his presentation with the Web 2.0 definition in Wikipedia: Web 2.0, a phrase coined by O'Reilly Media in 2003, refers to a perceived second generation of web-based services such as social networking sites, wikis, communication tools and folksonomies that emphasize online collaboration and sharing among users.

Mr. Berman's source of the definition for Web 2.0 was Wikipedia, a resource that is based on Web 2.0 principles. I was very familiar with Wikipedia as a user, but I didn't know much about the technology so I decided to do a little research about Web 2.0 on my own. What I've written are the basics of Web 2.0 and its impact on the way we communicate, build websites and develop applications.

Wikipedia.org is a free, web-based encyclopedia project that is currently operated by the Wikimedia Foundation, a non-profit organization. Wikipedia itself is a Web 2.0 site because it is a collaborative effort by volunteers allowing its users to make edits and additions to articles. A wiki refers to a very simple, easy-to-use, user-maintained database for creating, browsing and searching information. A wiki enables documents to be written collaboratively, in a simple markup language using a web browser. A single page in a wiki is referred to as a "wiki page," while the entire body of pages, which are usually highly interconnected via hyperlinks, are referred to as "the wiki."<sup>1</sup>

Web 2.0 does not contain any hardened rules about what it is and what it is not, but is a general concept of how and what the next generation of web usage will entail. Most references to Web 2.0 revolve around the same concepts: using the web as a platform instead of the current web experience of individual silo web pages, referred to now as Web 1.0. By using the web as a platform, information will move away from the isolated silo approach and instead become a source for content and functionality that will service web applications for end users. The ultimate Web 2.0 will have internet applications replacing software loaded onto desktops.

The concept of Web 2.0 contains a set of principles and practices that will link up a universe of like-minded web sites that share some or all of the same principles. These principles include: the web as a platform; harnessing collective intelligence; services as opposed to packaged software; and a rich interactive user-friendly experience.

One of the first companies to embrace the Web 2.0 concept by treating the web as a platform and the first widely deployed "mashup" is DoubleClick, a digital advertising company. A mashup is a web site or application that

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combines data or content from multiple sources into one user experience. DoubleClick is a web service; every banner ad is produced with seamless commingling of data between multiple web sites, delivering an integrated page to a reader on another computer.

Social networks, which connect people with varying interests, are guided by two of the core principles of Web 2.0, harnessing collective intelligence and providing a rich user experience. Tim O'Reilly who is generally regarded as the architect behind the Web 2.0 concept said, "I've long made the assertion that one of the central differences between the PC era and the Web 2.0 era is that once the internet becomes a platform, rather than just an add-on to the PC, you can build applications that harness network effects, so that they become better the more people use them. I've used the phrase 'harnessing collective intelligence' to frame this phenomenon."<sup>2</sup>

Two of the most popular social networking sites on the web today are MySpace and YouTube. Both sites allow for interaction among the masses with continuously updated content and rich user-friendly experiences. To provide the rich internet experiences of sites like MySpace and YouTube, application techniques such as Ajax and Adobe Flash are used. These application techniques have been evolving and are improving the user experience in browser-based applications. Ajax allows a web page to request an update for a small piece of data on the web page and alter that data in the browser without refreshing the entire page. Adobe Flash is used to create animation, to integrate video into web pages, and, more recently, to develop rich internet applications.<sup>3</sup>

Firms are beginning to look at using social networks to serve business purposes. Some firms are asking their employees to build and update their own employee skill profile. This allows a firm to create and maintain a current searchable skills database by employee. LinkedIn.com is a business-oriented social networking site, mainly used for professional networking. As of July 2007, it had more than 12 million registered users, spanning 150 industries. LinkedIn allows members to create contact lists of people they know and trust in business.<sup>4</sup> As a member you make connections with other members that you have something in common with such as the college you attended or the industry you work in. Users network by viewing other members' profiles and arranging for introductions to other members through contacts that a member already has or through contacts of a contact, etc. In the UK, an emerging online networking service is bizmeed.com, which is similar to linkedin.com but is also developing a live video conferencing feature.<sup>5</sup>

A term most are familiar with these days is a blog. A blog, in its most basic form is a personal home page in a diary format that delivers its content in chronological order. Blogs harness the Web 2.0 principle of collective intelligence by allowing visitors to add thoughts and ideas to the subject matter. The latest technology, Really Simple Syndication (RSS), also known as web syndication, allows one to subscribe to a blog and be notified whenever the blog is updated by a new entry. This phenomenon has been dubbed the "live web."

Many companies are beginning to embrace Web 2.0 concepts and technologies, with most using it internally at first in the form of a blog. Blogs can have endless uses for internal communications within a firm, ranging from project management to daily operations.

The advent of broadband internet and enhanced security features of today have encouraged consumers to conduct financial transactions online over multiple devices, i.e., PCs, laptops or smartphones. Now, several banks and financial institutions are revamping their sites and are integrating richer applications to enhance usability and interactivity with improved security features to create a more efficient online banking experience. Firms like Bank of America and Wells Fargo allow their customers to track their accounts or credit card spending; categorizing expenses using merchant codes attached to transactions, creating budgets, and charting actual spending. According to Stamford consultancy and research firm Gartner, 75% of banks will use Web 2.0 technologies in retail delivery by 2012.<sup>6</sup>

The Web 2.0 era has a brief history, but the widespread use of blogs, social networks and the emergence of new technologies leads to the conclusion that we are only at the beginning of what the web is and where it is going.

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The time line below notes some milestones in the brief history of Web 2.0.<sup>7</sup>

January 1996	Larry Page and Sergey Brin develop the BackRub search engine. BackRub is named for its unique ability to analyze the “back links” pointing to a given web site. BackRub later becomes Google.
December 1997	Jorn Barger, author of the site Robot Wisdom, coins the phrase “weblogs” to describe what he and several other internet pioneers are doing on their sites.
1999	Peter Merholz, author of the weblog Peterme.com, announces he’s going to pronounce the weblog as “we blog” which is inevitably shortened to the word “blog” with the author called a “blogger.”
January 1999	23 weblogs exist.
August 1999	Blogger launches, providing an easy to use tool for users to create and update their own weblogs driving blogging into the mainstream.
January 15, 2001	Wikipedia launches, harnessing the “wisdom of the crowds” to build an online encyclopedia. The “wisdom of the crowds” is one of the underlying principles of Web 2.0 and was coined by James Surowieki, a columnist for The New Yorker magazine. The “wisdom of the crowds” principle says that large groups of people collaborating together on a problem can find the right answer better than individual experts working alone or in small groups.
2003	MySpace is founded. It allows users to build networks of friends, post personal profiles, blogs, photos, music and videos.
February 2004	Flickr launches. The photo sharing site is built on user-created content. Flickr is open to collaboration with other sites on the web. The service includes tools designed to make it easy for the user to post photos and blogs from its site to other web sites. Yahoo bought Flickr in March 2005.
April 1, 2004	Google announces Gmail, a milestone in rich user interfaces, using Ajax technology to create a web mail service with capabilities rivaling desktop email software.
July 2004	Three Millionth weblog is created.
October 2004	First Web 2.0 conference is sponsored by O’Reilly and Associates.
December 2004	Digg launches, harnessing the wisdom of crowds on the internet to locate interesting articles and rank and present them in order of importance.
February 2005	Google introduces Google Maps, a pioneering example of an application with a rich user interface built using Java.
February 8, 2005	Wikipedia’s page for Web 2.0 goes live.
August 2006	One Millionth MySpace page is created.

<sup>1</sup> <http://en.wikipedia.org/wiki/Wiki>

<sup>2</sup> [http://radar.oreilly.com/archives/2006/11/harnessing\\_coll.html](http://radar.oreilly.com/archives/2006/11/harnessing_coll.html)

<sup>3</sup> [http://en.wikipedia.org/wiki/Adobe\\_flash](http://en.wikipedia.org/wiki/Adobe_flash)

<sup>4</sup> <http://en.wikipedia.org/wiki/LinkedIn>

<sup>5</sup> [http://en.wikipedia.org/wiki/Social\\_network\\_servic](http://en.wikipedia.org/wiki/Social_network_servic)

<sup>6</sup> [http://www.rareplay.com/index.php?](http://www.rareplay.com/index.php?mact=News,cntnt01,detail,01articleid=153&cntnt01returnid=32&news_category_id=1)

[mact=News,cntnt01,detail,01articleid=153&cntnt01returnid=32&news\\_category\\_id=1](http://www.rareplay.com/index.php?mact=News,cntnt01,detail,01articleid=153&cntnt01returnid=32&news_category_id=1)

<sup>7</sup> [http://www.informationweek.com/1113/IDweb20\\_timeline.jhtml](http://www.informationweek.com/1113/IDweb20_timeline.jhtml)

## Did You Know ? .....

**Google** was derived from the word "Googol" which is the mathematical term for a 1 followed by 100 zeros. The term was coined by Milton Sirotta, nephew of American mathematician Edward Kasner, and was popularized in the book, "Mathematics and the Imagination" by Kasner and James Newman. Google's play on the term reflects the company's mission to organize the immense amount of information available on the web.

Source: [www.google.com](http://www.google.com)

**Folksonomy** is a type of classification system for online content, created by an individual user who tags information with freely chosen keywords; also, the cooperation of a group of people to create such a classification system.

*Etymology:* 2005; folk + taxonomy

Source: Modern Language Association (MLA):Webster's New Millennium™ Dictionary of English, Preview Edition (v 0.9.7). Lexico Publishing Group, LLC. 16 Oct. 2007. <Dictionary.com <http://dictionary.reference.com/browse/folksonomy>>

**AJAX** (programming) (Asynchronous JavaScript and XML) is a web development technique used for creating interactive web applications. The intent is to make web pages feel more responsive by exchanging small amounts of data with the server behind the scenes, so that the entire web page does not have to be reloaded each time the user requests a change. This is intended to increase the web page's interactivity, speed, functionality and usability.

Source: [www.wikipedia.com](http://www.wikipedia.com)

**RSS** (Really Simple Syndication) refers to any of various XML file formats suitable for disseminating real-time information via subscription on the Internet. RSS has become a popular technology for bloggers and podcasters to distribute their content.

Source: Modern Language Association (MLA):Webster's New Millennium™ Dictionary of English, Preview Edition (v 0.9.7). Lexico Publishing Group, LLC. 16 Oct. 2007. <Dictionary.com <http://dictionary.reference.com/browse/rss>>

## Upcoming Events

Andy Luro will be participating in the upcoming NICSA Technology Summit 2007 in Las Vegas from October 23rd through October 26th. The conference features business innovations for the investment management industry. If you plan on attending and would like more information about Venture, please contact Joanne Cavallaro at 781-932-7544 or look for Andy at the Conference.

While at the Technology Summit, Andy will be running in the AT&T 5K Challenge hosted by Mutual Funds Against Cancer. Mutual Funds Against Cancer is one of the leading advocates in the fight against cancer within New England's mutual fund and financial industry. Proceeds go to benefit The Jimmy Fund, the fund-raising arm of the Dana-Farber Cancer Institute, one of the leading cancer research and patient care facilities in the world. For more information on Mutual Funds Against Cancer and the AT&T Challenge, please visit [www.mutualfundsagainstcancer.com](http://www.mutualfundsagainstcancer.com).

Andy is a Managing Consulting with Venture Financial Systems Group with over 20 years experience in the Investment Management Industry and Securities Processing Systems. Andy is a member of the NICSA Technology Committee.

## About VENTURE Financial Systems Group, LTD.

Venture Financial Systems Group, LTD. is a consulting firm specifically focused on delivering business and technology solutions to the investment management industry. Venture offers a wide range of consulting services including strategic planning, software and vendor service evaluations, system integration, customized software solutions, and implementation services.

Founded in 1992, Venture was started as a niche firm focused on the delivery of expert consulting services with a particular emphasis on the implementation and integration of fund accounting systems, a core competency still. Today, Venture offers a wide range of consulting services through the investment management vertical and boasts a distinguished client base that includes many large global investment management firms.

For more information, visit: [www.venturefsg.com](http://www.venturefsg.com).