

WEB 2.0: SHIFTING FROM PUBLISHING TO PARTICIPATION

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ABSTRACT

We've all heard of Web 2.0, but what does it mean? I think of it as the Interactive Internet. It encourages collaboration between users and is driving the trend towards more interactive websites.

The Internet as we have come to know it has been around for over ten years now. To date it has principally been used for searching, browsing and reading static information, which had been known as Web 1.0.

Now it is evolving into something quite different, in fact something revolutionary. We are now in what is being coined the "Web 2.0 era", where the Internet is now about interactivity.

No longer do Internet users want to just look at and read a page. They want to interact, leave comments, upload music or photos and be involved in the Internet community.

Keywords: Web 2.0, Blogs, RSS, Mashups, Web 2.0 Technologies, Wiki, Atul, Kailash

1. INTRODUCTION

Web 2.0, the second phase in the Web's evolution, has been attracting the attention of IT professionals, businesses, and Web users. Web 2.0 is also called the wisdom Web, people-centric Web, participative Web, and read/write Web. Web 2.0 harnesses the Web in a more interactive and joint manner, emphasizing peers' social interaction and collective intelligence, and presents new opportunities for leveraging the Web and engaging its users more effectively. Within the last two to three years, Web 2.0, ignited by successful Web 2.0-based social applications such as My Space, Flickr, and YouTube, has been forging new applications that were previously unimaginable. Even in context of India many Web 2.0 sites have come up in a big way like eBay India, My Yahoo India, BigAdda, Fropper, Yaari to name a few.

Many enterprises are reaping significant benefits from Web 2.0. As per the figure shown above, it is quite apparent that the e-Commerce market is growing at a tremendous pace. In this throat cutting market, those who are Web 2.0 enabled will definitely have a cutting edge over their competitors. In a recent global survey, more than three-fourths of senior executives participating in the study said that Web 2.0 technologies are strategic and that they plan to increase their investments in Web 2.0 applications.

2. SOME INTERESTING FACTS ABOUT WEB 2.0

Web 2.0 is something which can be called as a collection of both usage and technology. To be more precise, we can call it as a collection of technologies, business strategies, and social trends. Web 2.0 is more dynamic and interactive than its predecessor, Web 1.0, letting users both access content from a Web site and contribute to it. Web 2.0 lets users keep up with a site's latest content even without visiting the actual Web page. It also lets developers easily and quickly create new Web applications that draw on data, information, or services available on the Internet. The best example of this can be thought of as My Yahoo service, wherein we can combine news, mail, calendar, comics and a lot more on a single Web page. Web 2.0 isn't just a new version of the same old Web; it's a different thing in several ways. For example, Web 2.0 can:

- facilitates flexible Web design, creative reuse, collaborative content creation, modification and updates; provides a rich, responsive user interface;
- enables the creation of new applications by reusing and combining different applications on the Web or by combining data and information from different sources;

Web 2.0, however, defies a widely agreed-upon, concise definition – perhaps because the underlying phenomenon is huge.

3. TECHNOLOGIES AND SERVICES BEING USED IN WEB 2.0

Web 2.0 is an umbrella term encompassing several new Web technologies, which can be summarised in the following paragraphs.

Blogs

Blogging is the buzzword today. Its hard to find someone who is not talking about blogs. A blog, short for Web log, is a powerful two-way Web-based communication tool. If you've been surfing the web for the past year or five, you've undoubtedly heard of "blogs" or weblogs. These personal Internet journals have taken the Internet by storm. Frequently updated and written in a personal tone, a blog is a diary or journal where the writer or "blogger" will write her observations on the world or provide links to useful websites. Different bloggers write about different themes, sort of like a newspaper columnist but with no specialized training necessary.

The first blog is said also to have been the first website in 1992. Blogs didn't really start to take off until the late nineties, however, and they gained in popularity after 2000. Early blogs were mostly lists of recommended links with some commentary. Since then, they've evolved to something different. Now anyone who fancies himself a writer, and even some people who don't, has a blog on the Internet. Thanks to easy-to-use

programs and websites, the most technically challenged person can get a blog online. This isn't a bad thing, as there's something out there for everyone.

4. REALLY SIMPLE SYNDICATION (RSS)

RSS also known as rich site summary or real simply syndication, arrived on the scene a number of years ago, but was only recently embraced by webmasters as a means to effectively syndicate content. RSS Feeds provide webmasters and content providers an avenue to provide concise summaries to prospective readers. Thousands of commercial web sites and blogs now publish content summaries in an RSS feed. Each item in the feed typically contains a headline; article summary and link back to the online article.

Benefit to the Webmaster As the web has become more crowded webmasters have been striving to provide fresh and up to date content for their website visitors. Many webmasters have discovered they can easily utilize the information in RSS feeds to provide fresh web content.

Wikis

Howard G. "Ward" Cunningham (born May 26, 1949) is the American computer programmer who developed the first Wiki. A pioneer in both design patterns and Extreme Programming, he started programming the software WikiWikiWeb in 1994, Wiki is in Ward's original description:

"The simplest online database that could possibly work."

Wiki is a piece of server software that allows users to freely create and edit Web page content using any Web browser. Wiki supports hyperlinks and has a simple text syntax for creating new pages and crosslinks between internal pages on the fly.

Like many simple concepts, "open editing" has some profound and subtle effects on Wiki usage. Allowing everyday users to create and edit any page in a Web site is exciting in that it encourages democratic use of the Web and promotes content composition by nontechnical users.

How is a wiki different from a blog

A wiki possesses an "edit this page" link that allows a visitor to make changes to the page. This link is what makes wikis different from Web logs, or blogs, which permit readers to give feedback on a particular comment but prevent them from editing anything but their own postings.

Mashups

A mashup is a website or web application that seamlessly combines content from more than one source into an integrated experience.

Much the way blogs revolutionized online publishing; mashups are revolutionizing web development by allowing anyone to combine existing data from sources like eBay, Amazon, Google, Windows Live and Yahoo in innovative ways. The greater availability of simple and lightweight API's have made mashups relatively easy to design. They require with minimal technical knowledge and thus custom mashups are sometimes created by unlikely innovators, combining available public data in new and creative ways. While there are many useful mashups, others are simple novelties or gimmicks, with minimal practical utility." Mashups are one of the hottest trends on the web today. According to Wikipedia.org, "A mashup is a website or web application that seamlessly combines content from more than one source into an integrated experience. Content used in mashups is typically sourced from a third party via a public interface or API. Other methods of sourcing content for mashups include Web feeds (e.g. RSS or Atom) and JavaScript."

Tags, Folksonomy, and Tag Clouds

Tags are keywords added to articles in blogs or Web pages via social page tag tools such as del.icio.us (<http://del.icio.us>), Technorati, and Yahoo's My Web. Most blogs and Web publications use tags. Tags are also known as labels, and the process of creating tags is known as tagging.

Folksonomy refers to user-created taxonomies of information. It is an ad hoc classification scheme that Web users create as they surf the Web to categorize the content they find online. It uses collaboratively generated, open-ended tags or labels that categorize content such as Web pages, online photographs, and Web links. A special feature of folksonomies is that they don't have a hierarchy as in professionally developed taxonomies with controlled vocabularies, and hence they're inherently open ended.

Social bookmarking is the process by which users bookmark interesting pages and assign tags to each. Users can then share their tagged bookmarks (see, for example, del.icio.us). Social bookmarking is a great way of capturing contextual knowledge.

A tag cloud is a visual depiction of a list of content tags used on a Web site or blog, with some kind of visualization for each tag's popularity level. Generally, more frequently used tags are depicted in a larger font or are emphasized some other way, and the display order is alphabetical, making it easy to find a tag by popularity or place in the alphabet.

5. DEVELOPMENT APPROACHES

Developers use three principle development approaches to create Web 2.0 applications: Asynchronous JavaScript and XML (AJAX), and Flex.

Ajax

Ajax (sometimes called Asynchronous JavaScript and XML) is a way of programming for the Web that gets rid of the hourglass. Data, content, and design are merged together into a seamless whole. When your customer clicks on something on an Ajax driven application, there is very little lag time. The page simply displays what they're asking for. If you don't believe me, try out Google Maps for a few seconds. Scroll around and watch as the map updates almost before your eyes. There is very little lag and you don't have to wait for pages to refresh or reload.

Flex

Adobe Flex (<http://www.adobe.com/products/flex>) is an application development solution for creating and delivering cross-platform rich Internet applications (RIAs) on the Web.

At the heart of Flex is the ability to create SWF files that run in Adobe Flash Player. Distill all the features down and really it is a development paradigm that compiles to SWF. It really is that simple but often we make the definition much harder. Just like Flash can create SWF files, so can Flex but the way you develop is completely different.

CONCLUSION

Although Web 2.0 began simply as a consumer phenomenon, attracting numerous users and contributors for social applications such as MySpace, Flickr and YouTube, and the online encyclopedia Wikipedia, it has significantly impacted many other application areas by enabling better, faster, and richer applications, while reducing costs of development and deployment and offering tangible benefits. For example, Web 2.0 can help businesses in product development, market research, competitive intelligence gathering, and revenue generation.

Web 2.0 applications, however, pose a new design and development dilemma: fast and easy versus well designed and well engineered. We need to rethink Web application development methods in light of Web 2.0 in the way of addressing the issues of scalability, performance, and security of Web 2.0 applications which is another challenge for IT professionals.

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