

# Web 2.0

## Mass Collaboration Changes the Rules of the Game

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Mass collaboration is reshaping the way goods and services are conceived, designed, developed, marketed, sold, supported, and ultimately consumed. As information silos are broken down and replaced with collaborative networks where peer-production and content sharing is the norm, traditional project hierarchies are giving way to global, cross-functional teams working at their peak by sharing information on a twenty-four hours a day basis.

For an example, look no further than traditional market research processes; antiquated market research practices - with their inherently high costs and latency - are increasingly being replaced by real time bidirectional information flows between customers, prospects, partners, and vendors. As a result, reactive, expense laden product and customer support models are rendered obsolete and replaced by proactive customer engagement resulting in never before imagined levels of customer service and satisfaction.

However, the impact of mass collaboration and Web 2.0 extends far beyond market research and customer support. Entire research and development teams, for example, are being transformed by collaborative outsourcing to expert communities. Over the course of the following article, you will come to understand how mass collaboration stands to impact every facet of your organization. The following white paper will define Web 2.0, provide a thorough review of the cornerstones of Web 2.0 (blogs, wikis and RSS), illustrate how early adopters are gaining competitive advantage by deploying these technologies and close by recommending several actionable steps.

### What is Web 2.0?

The term "Web 2.0" was coined by O'Reilly Media in 2004 and refers to the second generation of Internet based services such as social networking sites, wikis and communication tools that emphasize online collaboration and sharing among users. Tim O'Reilly summarized Web 2.0, "Web 2.0 is the business revolution in the computer industry caused by the move to the Internet as platform, and an attempt to understand the rules for success on that new platform. Chief among those rules is this: Build applications that harness network effects to get more people to use them." In short, the foundation of Web 2.0 is collaboration. But how do individuals, workgroups, and communities of similar individuals collaborate on a global scale? At the core of Web 2.0, three distinct technologies empower individuals to collaborate on a scale never before achieved: blogs, wikis and RSS (which stands for "Really Simple Syndication".) While these three technologies first emerged from the consumer market through social networking sites such as myspace.com, they are evolving to address the needs of the enterprise, and in the process of doing so provide early adopters with unparalleled competitive advantage.

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## Blogs

The term "Blog" is derived from the term "Web log" and refers to a website that is the composition of user contributions. Entries in a blog are typically listed with the most recent entry first and in journal style. The most successful blogs traditionally provide commentary, news and/or insight on a particular subject. More often than not, blogs combine text, images, video, audio and links to other blogs, web pages, and other content related to their core topics.

During a recent interview, Vice Chairman Bob Lutz of General Motors described his company's adoption of blogs, "No better opportunity exists to engage in an open dialog and exchange of ideas with customers and potential customers than using blogging technology."

Not surprisingly, blogs provide an excellent means of promoting products, articulating solutions, and exposing a brand to search engines such as Google - the primary means by which prospective customers locate product and service information. More often than not, blogs are used to reinforce their brands and compliment traditional marketing campaigns through media channels such as television and radio. Similarly, while advertising, promotional and collateral sources provide more direct control, blogs are often believed to offer more credibility since they channel real world customer observations and insight.

Many are surprised to learn that General Motors is an ardent proponent of blogging to reach a broad range of customers. During a recent interview, Vice Chairman Bob Lutz of General Motors described his company's adoption of blogs, "No better opportunity exists to engage in an open dialog and exchange

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This open exchange of ideas often translates to a less threatening means of reaching prospective customers, particularly during the discovery process when many are gathering information and in the early stages of opening a dialog with a product or service provider. Jeffrey Nolan, Director of Apollo Strategy Group at SAP explained, "All of the SAP Blogs solve the problem of getting quick-hitting content to people that need it." Similarly, the effective use of blogs enables users to develop a dialog (or read the dialog of others) before committing to a product or service. Additionally, because blogs are not restricted by classic call center constraints - for example, call volumes, staff levels, time zones differences, etc. - customers and prospects can often access critical information without consuming expensive resources.

## Wikis

While blogs serve as interactive publishing platforms, wikis provide the foundation of the collaboration platform. Wikis - the term is Hawaiian for "quick" - refers to websites that allow users to easily add, delete and edit website content. The ease of access, intuitive interface and single repository - all of which contribute to the notion of a "living document" - make wikis an efficient and effective tool of mass collaboration. What's behind the acceptance of the wiki movement? Without a doubt, the global Wikipedia phenomenon is driving a great deal of interest in applying wiki technology to meet the collaboration needs of businesses. Increasingly, companies that consider themselves "technology early adopters" are applying wikis to non encyclopedic content such as product information, company profiles, documentation, and user guides. Instead of explicit document-versioning, wikis simplify the approach to content collaboration by maintaining a single shelf-product that anyone can review, change, edit or annotate. In the spirit of Web 2.0 applications, wikis encourage participation and contribution, which in turn generates more valuable and relevant content for all participants.

Nokia, the Finnish telecommunications giant, is an active user of wikis for their internal collaboration requirements. Nokia's "Insight and Foresight" business unit – a group which, not surprisingly, identifies disruptive technology and business model developments – embraced wikis "as an alternative to email." During a recent interview, Suzanne Stein, manager of the business unit, lamented the limitations of email as a collaboration tool. "Email is too flexible with one-way handling – leading to occupational spam - without any ability to scan, not shareable and provides no group memory." By embracing wikis as an alternative to email, Nokia is saving time and accelerating projects. Stein continued, "[Our Wikis] are designed with flexibility and movement in mind, making it possible to post from anywhere, like en route in a taxi."

Nokia isn't the only company that is turning to wikis as a collaboration platform when email proves too unwieldy and inefficient. Ziff Davis Media, a division of the publishing giant, estimates that the effective use of wikis has resulted in a massive reduction in email traffic, saving the company over \$1M per year within a fifty member engineering team. Ziff Davis General Manager described the circumstance, "We had a lot of confusion over email, well over 100 group emails a day, which was nightmarish. Everything was lost in inboxes and you had to data mine your emails to find anything." As Ziff Davis deployed Wikis as their collaboration platform, they noted how easily art, production and editorial departments could work together, communicating what was needed for stories in progress, which could be anything: art, HTML, copy, etc.

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Additionally, because coordination was conducted openly – for everyone to observe and contribute – instead of hidden in email, other team members benefited as well. "Because we post things like feature schedules and article schedules", explained Ziff Davis Editor Sam Kennedy, "Marketing gets current information about game coverage that can inform buys with Google or another search engine."

In short, wikis have enabled Nokia, Ziff Davis, and countless other early adopters to reduce email traffic and develop products and services faster through more efficient communication and collaboration. This translates to better products, delivered faster at lower costs; the source of significant competitive advantage.

## RSS

The third and final component of Web 2.0 technology is RSS, an abbreviation for "Really Simple Syndication." Software programs known as "Feed Readers" or "Aggregators" routinely check a user's "subscribed feeds" to see if any of those feeds have new digital content such as news, blogs or podcasts. If there is new or updated content, the digital content is retrieved and that content is presented to the user. Google News Alerts, for example, is a Google branded RSS feed service.

Web-based feed readers and news aggregators such as NewsGator Online require no software installation and make the user's feeds available on any computer with web access. Some aggregators take existing web feeds and combine them into a new feed that is a summary of multiple feeds, blogs, podcasts, etc. on a specific topic. Not surprisingly, there are numerous reasons why an organization may choose to syndicate their content. For one, syndicating content fortifies inbound links from interested users and as a result increases your website's placement in search engine rankings; higher search engine rankings, in turn, expand your online reach to new searchers. Many of the benefits of RSS, however, are unique to specific departmental functions.

For example, keyword search capabilities via RSS provide sales teams with immediate competitive intelligence on topics such as market trends, technology and actions by specific competitors.

Automatic updates via RSS also provide a critical public relations function, delivering the latest news on brands, executives and external content. USA Today – the division of Gannett Publishing - uses RSS as a critical service of their MyUSAToday.com website. By offering RSS services, MyUSAToday allows readers the flexibility to customize informational content from a wide range of sources, all within USAToday.com. Readers can subscribe to USAToday.com feeds as well as blogs and other content specifically selected by USAToday.com’s editorial staff.

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-Kinsey Wilson, executive editor of USAToday.com

“In a world of information overload, readers want a combination of editorial guidance and personal control,” explained Kinsey Wilson, Executive editor of USAToday.com, “[With RSS] we’ve found a way to bring simplicity and ease of use – the hallmarks of the USA Today experience – to personalization and customized news feeds. We’ve created a custom newsreader for the everyday news consumer who doesn’t want to think about technology.”

## Reducing the Cost of Customer Care

Most businesses direct their customers to a website as the first resource for issue resolution. If the inquiry cannot be resolved online, then more often than not, the customer places a phone call to the company and an agent, in turn, logs a support incident or trouble ticket. If the inquiry is not resolved with the call center representative, the trouble ticket is forwarded to a support engineer who in turn may consult with additional resources such as engineering, quality assurance or product management. When applied to the world’s largest companies, the size and scope of this process is vast. In fact, in a typical Global 1000 technology company, approximately 500,000 support-related inquiries are recorded each year. Almost 60% of these inquiries are relatively insignificant in nature and will not have a major impact on the customer’s business. Successful companies that embrace Web 2.0 and mass collaboration are augmenting their support portals with wikis, blogs and RSS services that allow customers to create fast, fluid and innovative content. A marketing director at SAP, the global software giant, explains that Web 2.0 technologies “are not a replacement of our corporate portal, but an addition to it.”

By fostering a community of users that rely on a company’s products and services, and encouraging customers to exchange ideas, recommend best practices and address one another’s support issues, forward-leaning companies are finding that they can deliver more proactive customer care at lower costs. In fact, Stata Labs, the software company that develops the Bloomba email client and SA Proxy Pro Spam Filter software, relies on wikis and blogs to promote collaboration across its customers and empower support staff-members to solve problems faster. In particular, Web 2.0 technologies help integrate a first-line support team in India with the second-line support team in India. Each support request generated on the website sends an email to a support wiki; requests are automatically categorized. “First-tier support reps query the wiki knowledge base for pre-written answer templates, but if they don’t know the answer, they can use the workspace to compose standard answers.”

## Extending Research and Development Beyond the Enterprise

Some of the nation's largest research and development organizations routinely look outside their enterprise to source engineering and support talent on a case-by-case basis. In fact, Dow Chemical, Proctor & Gamble and DuPont rely on Web 2.0 technology to tap into talent and domain expertise outside their enterprises; they use a collaboration platform that enables them to pose scientific, engineering or other technical product or service challenges to a broad community of over 80,000 engineers in 175 countries, many of whom are retired engineers, aspiring chemists, or academics.

"Dow is committed to bringing innovations to market in a timely fashion," explained Dr. Dan Kittle, Vice President of Research and Development for Dow Chemical. By participating in Web 2.0 collaboration initiatives that leverage wikis and blogs, "we have access to an unparalleled global community of scientists [that] accelerates the pace of our R&D innovation by fostering scientific collaboration that crosses traditional boundaries."

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## Removing Inefficiencies from the Customer Value Chain

A global telecommunications service firm sells over \$4 billion in wireless devices sales each year. However, approximately 10% of those wireless devices - or \$400 million in merchandise - is returned each year because the devices are perceived to be "defective." In reality, however, the customer and/or wireless device dealer were unable to perform a specific function on the device and assumed the device was defective. Because most wireless device dealers sell a broad range of devices, many do not know how to perform the most common features on each device. This further exacerbates the problem.

This global telecommunications firm turned to Web 2.0's RSS feeds to keep their dealers more informed on the nuances of each device, and educate customers and prospects who are interested in a topic area, such as devices, networks or local service options. Furthermore, they offered each dealer the ability to set up blogs for their customers, allowing them to develop a smaller, more intimate community around their local business. Finally, they leveraged wikis to train their wireless device dealers on how to troubleshoot each device, often relying on contributions from the device manufacturer. All told, the telecommunications firm removed inefficiencies from the customer value chain by more tightly aligning their customers with their local wireless dealers, and giving them both the resources, community, and real time news updates they need to be successful. This resulted in a reduction in returns of approximately 30% and savings in the tens of millions of dollars per year.

## What to Look for in a Web 2.0 Solution

Collaboration offers little value unless users are able to create and consume content on their own terms and in a way that is convenient and useful to them. As a result, a simple to use navigation is critical for user adoption. Furthermore, harnessing the collective intelligence both inside and outside an organization demands an open publishing framework along with trusted feedback services. Sophisticated blogging capabilities enable open publishing amongst users along with fully integrated and streamlined feedback functions. The result will enable any user to participate in a collaborative publishing environment.

As we've discussed, RSS has addressed the "push" information dilemma by providing a simple means of user notification. Both inside and outside the organization, individuals need to be kept "in the loop", whether it involves members of a project team or customers impacted by a security alert or software patch. RSS notification and project tracking capabilities in a scalable and secure environment using the most advanced and widely used solutions on the web need to be carefully considered.

## Web 2.0 Requirements Checklist

As you embark on evaluating software vendors and applications to introduce mass collaboration in your enterprise, consider the following Web 2.0 requirements:

### Best-In-Class Applications

Blogs, wikis and RSS are very different applications and no one vendor can offer them all. Look closely at the market leaders in each category. SixApart's Movable Type, for example, has emerged as the frontrunner in the enterprise blogging space. Similarly, SocialText's wiki software leads the pack in the market for collaboration software. In addition, NewsGator is the de facto standard in RSS management and aggregation while Simplefeed fits that bill on the publishing side of RSS.

### Integrated

A set of integrated applications enables a plug and play experience from the moment of installation, resulting in a lower TCO. Furthermore, a common user interface between applications and a common navigation menu will contribute to lower support and training costs and higher adoption by the end-user community.

### Security/Single Sign On

To succeed in an enterprise, a Web 2.0 application must include enterprise-grade security controls, including group, user, and role based access functionality along with standard based (JOSSO) single sign-on capabilities. Organizations should require multi-platform single sign-on with reverse proxy support, and it should all be available from a centrally managed and certified administration console.

### Scalable and Manageable

The most scalable and reliable Web 2.0 software solutions should be selected to ensure that the suite of Web 2.0 software can scale to support thousands of concurrent users. Again, remember that many of your users may be outside your enterprise.

### Reduced Risk

All software applications should be fully tested, supported and integrated with the infrastructure. Ideally, the software applications will be built for and certified on the hardware upon which the software will operate. Finally, the application must come from a company you trust with a network of trained, local support resources.

### Global 24x7 Support

Since Web 2.0 allows your organization to tap into a global community, be sure to select a solution from a company that offers global 24x7 support.

## Learn More

To learn more about Intel's new Web 2.0 appliance, please visit

**<http://www.suitetwo.com/>**