

2.0 watch

DISPATCHES FROM THE FRONT
LINES OF WEB 2.0

THE FUTURE

By [Amanda Etches-Johnson](#)

I remember first hearing about the “real-time” web about 15 years ago.

Back then, there was a neat little startup called PointCast that used push technology and a variety of information sources to stream real-time information to your desktop via a screensaver style application. Part of the fun of the application was the ability to customize the types of information that streamed to your screen. You could have up-to-the-minute weather reports! And a stock ticker! And headlines from your favourite news source! It was exciting! And fun! I remember feeling like I was living in the future! Except it was a rare day when all your information sources worked the way they were supposed to. The application was buggy and unreliable, and few people actually had the bandwidth to reliably stream content. And then PointCast disappeared and my screensaver reverted to a boring series of landscape images. Which was pleasant, to be sure, but not exactly “the future.”

Nowadays, no one really talks about the real-time web anymore, but that’s mostly because we’ve settled into just expecting real-time updates from many of our online haunts. Take the Facebook newsfeed, for example. When Facebook switched the behaviour of its newsfeed to an automatically refreshing stream, no one really noticed. The same thing

happened with Twitter. Remember the day when both sites went from requiring a browser refresh to see new content to automatically refreshing that content for you? Neither do I.

Similarly, Google Wave launched a few months ago to surprisingly little fanfare. Billed as the next great collaboration tool, Google Wave was likened to a cross between instant messaging, email, and social networking. It had all the potential to be pretty groundbreaking, but after about 48 hours of mild buzz, people stopped talking about it. The progression from static to real time is no longer groundbreaking because we’ve been hearing about the real-time web for years and every development and enhancement on the web has been leading us here. Of course, Google pulled the plug on Wave just a few weeks ago, but most tech commentators agree that the service provided an interesting proof-of-concept and that “Wave-like” features will eventually make their way into Gmail, Google’s email platform. And we probably won’t even notice.

So, why *now*? Why is the web finally living up to the real-time promise? The obvious answer is that the technology that powers the web has sufficiently evolved to fulfill that promise. To start with, physical networks are mature enough that bandwidth is no longer an issue, certainly for information providers, but also for the large majority of end-users. Additionally, we now have tools like jQuery (a JavaScript

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library) and Ajax (asynchronous JavaScript and XML), two web-scripting components that push content to users without requiring that they do anything to receive real-time updates in their browsers (like your self-updating Facebook newsfeed, for example). Furthermore, whereas the real-time web has emerged without standardization in the way the technology has been implemented across websites, the World Wide Web Consortium (W3C) announced earlier this year that they will be developing standards for the real-time web and push notifications, a welcome development that will promote interoperability and provide a foundation for future development.

Then there is the social web. In December 2009, Google launched real-time results in its search engine that tap into the wealth of content generated by the social web. Perform a search in Google on any popular topic and you will see a pane included in your results list that is devoted to real-time updates from Twitter that match your search terms. With the amount of content that is generated on the social web, the real-time web is actually richer and more interesting than we could ever have imagined in a pre-social web world. So much so that it wouldn't be a stretch to claim that social media and its participants have propelled the real-time web to fruition.

So, with the real-time web finally hitting its stride, what will be the impact on libraries? As with most things web-

related, the most significant impact of the real-time web on libraries will be evolving user expectations for everything from library communication to library applications and interfaces. The real-time web is changing the way users expect to receive information, and there is already considerable anecdotal evidence to suggest that users turn to Twitter first for status updates from their service providers before they pick up the phone to call them. Library users are no different.

Then there is the real-time search experience. While it is probably safe to assume that users won't expect to see results from Twitter in library catalogues anytime soon (hopefully), we *can* assume that our current search applications (both the ones we own and the ones we subscribe to) will have to undergo a major functional overhaul to keep up with user expectations for real-time search results. If we have any hope of meeting user expectations and enhancing the user experience, we would do well to ready ourselves and our systems for real-time technologies and practices. After all, the future is now!

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