



EXECUTIVE BRIEF

**Ajax**

OCTOBER 2005

# Introduction

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**A**jax isn't a technology. It's really several technologies, each flourishing in its own right, coming together in powerful new ways. The name "Ajax" is shorthand for Asynchronous JavaScript and XML, and it represents a fundamental shift in what is possible on the Web.

An Ajax application eliminates the start-stop nature of interaction on the Web, by allowing the user's interaction with the application to happen independent of communication with the server. So the user is never staring at a blank browser window and an hourglass icon, waiting around for the server to do something.

In May 2005, Adaptive Path and O'Reilly hosted the Ajax Summit. It was an invitation-only gathering of designers and developers who presented on the opportunities, challenges, and future implications of Ajax on Web applications. What follows are some of the conclusions we reached as a group.

# Business Implications of Ajax

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## Ajax and the Marketplace

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It's only a matter of time before Ajax support is fully integrated into Web application server platforms. In the meantime, Ajax will begin to change the marketplace by:

- **Allowing companies to improve existing Web applications incrementally.** Ajax applications can leverage the interaction and interface conventions of traditional Web applications, while extending them to make these interfaces more responsive. Most Ajax work for the next few years will be evolutionary changes to existing applications, not ground-up reimplementations.
- **Supporting rapid innovation.** Forward-thinking organizations will turn to Ajax to create completely new kinds of applications, unlike previous Web or desktop applications.
- **Reducing the learning curve across organizations.** Ajax lets Web application developers learn from each other to a far greater degree than was previously possible, because they can now “view source” on key components of each others' work. This will enable a much higher rate of uptake and innovation than we have seen with proprietary or server-side platforms.
- **Spawning new approaches to Web metrics.** Traditional approaches to Web metrics that rely on the pageview as a key indicator of user behavior cannot be applied to Ajax applications. New metrics to replace the pageview will be developed for Ajax projects. In addition, Ajax enables the development of completely new metrics that should provide a much richer view of user behavior than traditional Web metrics.

## Ajax Pioneers

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**Google Suggest** Watch the way the suggested terms update as you type, almost instantly.

<http://www.google.com/webhp?complete=1>

**Google Maps** Zoom in. Use your cursor to grab the map and scroll around a bit. Again, everything happens almost instantly, with no waiting for pages to reload.

<http://maps.google.com/>

**Amazon's A9** Choose and remove the categories that define your search request; your selections update dynamically.

<http://a9.com/>

## How Ajax Affects Businesses

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For customer-facing products, early Ajax adopters will have the most to gain. Those who delay implementation are likely to see erosion of market share to competitors who have already made the jump. The benefits of employing Ajax include:

- **Competitive advantage.** Mature product categories that have seen only minor innovations in interaction design in recent years have the most to gain by adopting Ajax. The more stagnant a product category is in interaction design, the more notable the jump to Ajax will be. Ajax can be a key differentiator in luring users away from competitors.
- **User satisfaction.** Assuming companies implement Ajax with usability in mind, the switch will make Web applications more responsive and easier to use, promoting user retention. Intranet applications, many of which must deliver a high level of respon-

siveness, are among the applications with the most to gain by moving to Ajax. Organizations that deploy Ajax applications on their intranets will see better user adoption and increased efficiency over traditional Web applications.

- **Fine-tuned infrastructure.** In some cases, Ajax can reduce server load by off-loading processing to the browser. Also, Ajax can provide a more dynamic experience for users with bandwidth limitations, such as those on dial-up and mobile connections.

## Conclusions

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Ajax applications represent the best of both worlds: the responsiveness of desktop applications combined with the simplicity and usability of traditional Web applications.

Ajax is a key development for Web applications, and its importance will only grow. And because there are so many developers who already know how to use these technologies, we expect to see many more organizations reaping the competitive advantage Ajax provides.

## Adaptive Path/O'Reilly Media Ajax Summit

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This report is the result of discussions conducted at the Adaptive Path/O'Reilly Ajax Summit, May 9-10, 2005 in San Francisco, California. Participants included:

Jesse James Garrett, Adaptive Path	David Heinemeier Hansson
Jeffrey Veen, Adaptive Path	Meg Hourihan, megnut.com
Lane Becker, Adaptive Path	Darren James, Sabre
Janice Fraser, Adaptive Path	Thomas Lackner, Modern Method
Rael Dornfest, O'Reilly Media	Iain Lamb, Yahoo
Marc Hedlund, O'Reilly Media	Scott Andrew LePera
Steve Weiss, O'Reilly Media	Kevin Lynch, Macromedia
Dion Almaer, ajaxian.com	Adam Michela, axentric.com
Brent Ashley, ashleyit.com	Dunstan Orchard, Apple
Jonathan Boutelle, Uzanto	Derek Powazek, Technorati
Eric Costello, Ludicorp	Alex Russell, Jotspot
Douglas Crockford, crockford.com	Toni Schneider, Yahoo
Anil Dash, Six Apart	Bill Scott, Sabre
Jacob Derechin, JackBe	Sam Stephenson, Prototype
Brendan Eich, Mozilla	Evan Williams, Odeo
Ben Galbraith, ajaxian.com	Luke Wroblewski, eBay

## About Adaptive Path

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Adaptive Path provides strategic user experience services, helping create products that deliver compelling experiences for users and maximum value for businesses. The company's founders are recognized around the world as industry leaders. Adaptive Path's clients include innovative technology startups such as Flickr, Technorati, and Blogger; recognized brands such as Sony, Crayola, and Yamaha; and non-profit organizations such as PBS, Creative Commons, and the United Nations. Adaptive Path also shares its experience and expertise through publications, public workshops, and in-house corporate training. The company is headquartered in San Francisco.