



# Improving Consumer Use of the Web

## Speed and Ease in the Real World #1

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White Paper  
January 2009

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## Executive Summary

Ease and speed in the real world are measured in minutes, not milliseconds—in clicks and in frustration, not just in code.

In what many perceive to be a new version of “The Browser Wars,” there is a lot of talk about what makes a “good” browser but not a lot of data. We all know the browser is important; for some people, the 15 hours they spend online each week is second only to the 40 hours they spend working.<sup>i</sup> But time spent on the Web doesn’t help us understand how a particular browser improves or detracts from a person’s experience. Rather, we need to look at how people use the Web, and what they are trying to accomplish to see how measures of “speed” or “ease” can be applied to usage. This White Paper is the first in a series designed to foster a dialogue about the way people use the Web, and to show how Microsoft® is evolving Windows® Internet Explorer® to deliver the best Web experience possible. In this paper, we will discuss four real-world examples of consumer activity on the Internet, and show how Internet Explorer 8 is uniquely positioned to make those experiences faster and easier.<sup>ii</sup>

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## What do people do on their computers?

In the United States alone, more than half of adults go online every day, and three-fourths go online at least once a month.<sup>iii</sup> It would not be a stretch to suggest that, for many people, their computing experience is an online experience—the Web is why they have and use their PC, whether it is a desktop or laptop. And the online experience is brokered by the Web browser—perceptions of speed and of ease are all passed through the filter and influence of the browser.

To effectively evaluate browser performance in the real world of online activity, we need to understand what people are actually doing on the Web. Regardless of their age or demographic, people all do basically the same things online, although their hours spent doing those specific activities vary.<sup>iv</sup> They search, communicate, read news, shop, pursue work or school assignments, manage their banking, play games and chat. In the United States, the majority of online adults check email, read news and search at least once a week. Plus, 75 percent of them shop online, though less regularly.<sup>v</sup>

Microsoft has used these and similar data to determine the feature set and priorities for the business strategy and development priorities for Internet Explorer, putting the customer, not the code, at the center of the strategy. Specifically, Microsoft has used telemetry data from Internet Explorer to get a deeper sense of how these activities are being realized. For example, as people navigate to sites to read news, shop or communicate, 80 percent of the sites they visit are sites they've been to before, and 19 of the top 20 actions they initiate in Internet Explorer involve navigation. How can Microsoft improve navigation to make it faster and easier to accomplish what we do in the real world?

Laboratory metrics or statistics are interesting, but they don't tell the story about how real people experience comparison shopping or searching for a particular video. Most people don't get to drive on racetracks; so, knowing that the top speed of a particular car is 220 MPH isn't going to change a person's ability to drive comfortably in bumper-to-bumper traffic. Similarly, laboratory benchmarks may not reflect how long it takes someone to complete the online activity they are doing. What can be measured quickly, easily and across those variables are things like ease of discoverability and the most basic of metrics—the sheer number of clicks required to accomplish a given task. In this paper, we focus on real-world examples of key activities to show how Internet Explorer 8 makes the real Web work better for the real world.

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## Examples from the Real World

Let's look at real-world examples that highlight how these activities actually work. As noted above, searching, communicating, reading news and shopping are activities shared across all demographics, and they often combine to create the real-world consumer experience. Understanding this interaction and simplifying true consumer activity within Internet Explorer 8 helps make these experiences faster and easier.

### 1. Using Services on the Web

Every person has an experience on the Web that is uniquely his or her own. One person may use a particular place to find recipes, another for news articles, another for definitions and yet another for mapping information. One person may use Windows Live Mail and Yahoo Maps, for example, and another may use a different combination of services. Blurring the lines between those services and the browser and making the relationship more seamless can make those experiences faster and more powerful.

For example, whether finding directions to a job interview or confirming the locale of a restaurant, people often find themselves taking multiple actions to complete the task. Data show that the only action in the top 20 referred to in the introduction that isn't navigation is actually "copy." And, not surprisingly, the most common thing people do after they "copy" is hit "new tab," indicating they are often copying information from one site to paste it into another site.

Consider an office worker who is checking her Web mail account midday to find that the after-work gathering is at a particular restaurant, Belltown Bistro, 2322 1st Avenue in Seattle. She knows where 1st Avenue is, but not the cross street. **In the past, she would have had to:**

*Click 1: highlight and select the address information from the email*

*Click 2: copy that information*

*Click 3: open a new tab*

*Click 4: enter a new Web site address to navigate to a new site (like a mapping site)*

*Click 5: paste those results into that new site*

*Click 6: enter, and then view the results*

*Click 7: return to the email to pick up where she left off and respond*

Assuming that the copy/paste operation was accurate, which isn't always true, the above reflects a cumbersome and time-consuming process in sheer number of clicks—at least seven. To address this, Microsoft is introducing **Accelerators** in Internet Explorer 8 to give people instant access to the online services they care about from any Web page they visit, without having to leave the page and manually navigate to a different site.

With such services integrated directly into the browser, our happy hour bound office worker can simply:

Click 1: Highlight and select the address information in her Web mail

Click 2: Right-click and hover over an Accelerator, such as Microsoft® Live Search Maps or Yahoo! Maps, and immediately be presented with the results in a fly-out window with the location mapped (see Figure 1)

Alternately, a third click on the Accelerator name in the menu will take her directly to the Accelerator provider's Web site for additional information.

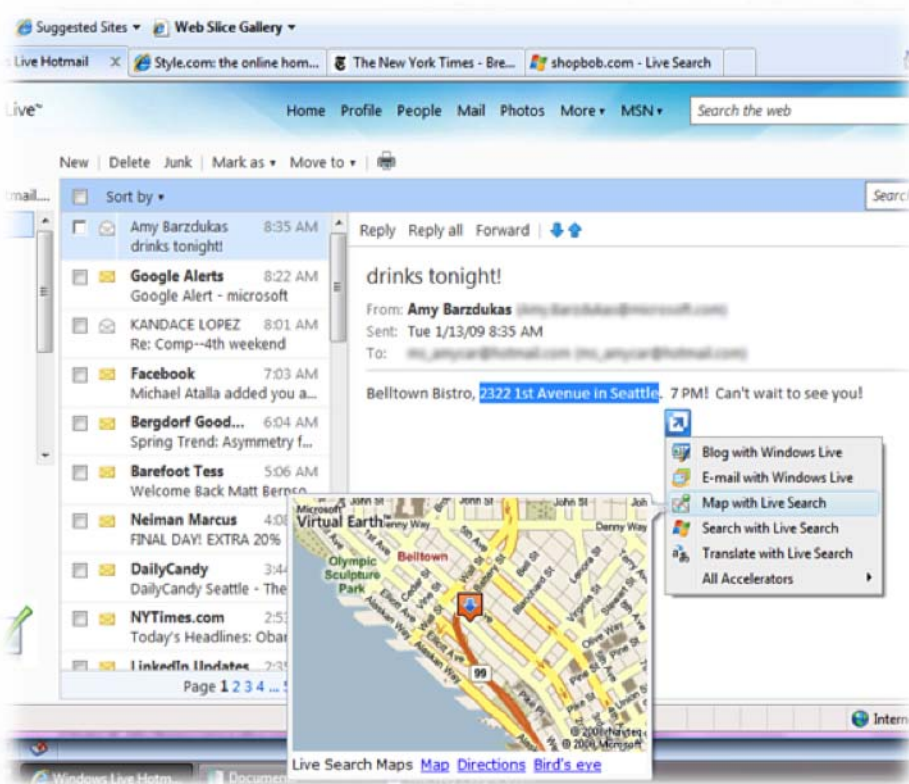


Figure 1: Mapping Accelerator reduces a 7-click (or more) operation to 2 clicks

## 2. Comparison Shopping

Of course, consumers search for more than addresses. They often use search to shop or to quickly access information or sites they've visited before. The search box in Internet Explorer 8 provides a far richer experience than most other browsers on the market. As people type a search term, they can see real-time suggestions which can be categorized and can include images. For example, retailers can provide images of products—real-time, visual search—to quickly, easily and visually speed up the process. And Internet Explorer's search box is not limited to one provider or dependent on one site. Popular sites such as Wikipedia, Amazon.com, The New York Times online, Yahoo!, eBay and Live Search are all taking advantage of the new search capabilities in Internet Explorer 8.

Figure 2 highlights how this visual search might work if a newly graduated 20-something were searching for pricing and availability of a new surround sound receiver on both Amazon.com and eBay to trick out his first apartment. **Previously, this might have involved:**

*Click 1: Type "Amazon.com" in the address bar*

*Click 2: Typing in a product or brand name, such as "Denon," or selecting the product category*

*Clicks 3-6: Multiple clicks to research pricing and availability*

*Clicks 7-12: Repeating the same exercise to get the same information on eBay*

**In Internet Explorer 8, however, the powerful search bar makes it easy to:**

*Click 1: Type "Denon" in the search bar*

*Click 2: Click on the Amazon search icon to see visual results, which in addition to showing the items, provides pricing, ratings and any additional attributes determined by the site provider. Visual search is making it easier to refine the search.*

*Click 3: Click on the eBay search icon to see their search results and see if a particular model might be less expensive.*



**Figure 2: Visual search speeds up comparison shopping**

In addition, because people often use search to get back to sites they've visited before, Internet Explorer 8 includes matches from a person's History in the bottom part of the search box drop-down. These results are included below the search provider suggestions and include matches from both the Web site address and the Web site title. The "back" button in any browser requires that our 20-something think chronologically, while the history offered in the search box drop-down provides a more elegant, faster way to navigate.

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Let's explore this. Our 20-something decided he was interested in a Denon receiver because he had done some research on CNET. Now that he has done research on various models' pricing and availability, what is an easy way to go back to the CNET review? In this case, his history shows those links in the very same pane where he is looking at various models available, and he can quickly and easily return to the reviews on CNET.

### 3. Communicating and Multitasking without Disruption

Increasingly, communicating and sharing are part of the fabric of consumer time spent on the Web. Multitasking is a very common behavior, particularly by younger people, where many Web activities are happening at the same time in parallel sessions. A teenager might be researching political events of the 1960s for a school project, and, at the same time, be on Facebook, using Instant Messenger, watching a YouTube video and checking her Web mail.

In the past, if this teenager happened to click on a link in an email that led to an unstable Web site, it could crash or stall the entire browser, including other tabs the teenager had open.

With Internet Explorer 8, if a Web page causes a crash, this teenager might not notice it. Unlike previous versions of Internet Explorer and other browsers, the disruption caused by an unstable site is minimal and is handled gracefully. Because the browser's frame and tabs run as separate, isolated processes, if something causes one tab to crash or stall, only that tab is affected. Tabs that crash are automatically restored and reloaded—in most cases, without needing to login to a Web site again.

Furthermore, if someone is entering information on a Web page (such as writing an email or filling out a form) when a tab crashes, Internet Explorer 8 will recover it when it reloads the page. And in the event that the browser crashes unexpectedly, the entire session (including all tabs) is restored.

In summary, because of these Internet Explorer 8 advances, the browser itself remains stable and other tabs remain unaffected; thereby, minimizing any disruption or inconvenience, and our teenager can continue doing her homework—and everything else.

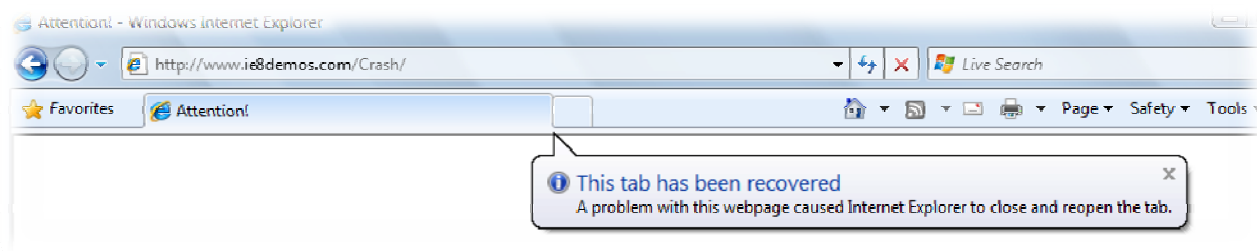


Figure 3: Tab isolation prevents disruption while multitasking

### 4. Getting Interrupted and Getting Back to What You Were Doing

Although less unnerving than a crash, accidentally closing a tab can be just as frustrating. Consider a mom at home trying to determine this weekend's soccer and basketball schedules while checking work email and simultaneously trying to find a new chicken recipe for dinner.



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When interrupted by her 4th-grader asking about a snack, she accidentally closes the tab on Epicurious.com where she had just found "Chicken with Lemons and Olives Emshmel."

**In the past, she might:**

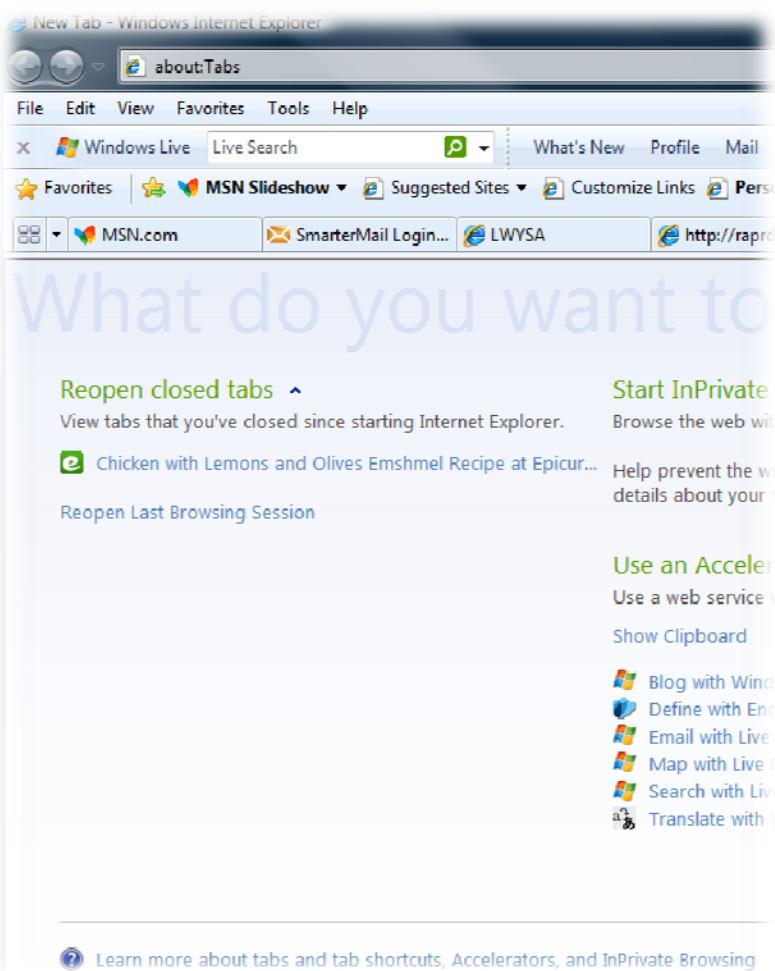
*Click 1: Open a new tab*

*Click 2: Re-navigate to Epicurious.com*

*Click 3: Re-search on "chicken" (in the event she doesn't remember how to spell "emshmel")*

*Multiple clicks: Re-locate the recipe*

Internet Explorer 8 reduces that frustration by letting people restore recently closed tabs from the New Tab page.



**Figure 4: Reopen closed tabs to immediately get back to “Chicken with Lemons and Olives Emshmel”**

**In this case, our mom merely**

*Click 1: Clicks to open a new tab*

*Click 2: Hits the recipe page link to immediately return to what she was doing*

She's back to dinner planning—and the rest of her online activities—with much less frustration.

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## Summary

As these examples show, we've taken a holistic approach to helping people get things done faster on the Web. People navigate through their online worlds in many ways, and improvements in new tabs and search box are just a few of the ways we're helping make things faster. The new Accelerators in Internet Explorer 8 are there to do what the name suggests—accelerate the task at hand with fewer clicks and less frustration, blurring the lines between services and browser.

Ease and speed in the real world are measured in minutes, not milliseconds—in clicks and in frustration, not just in code. In order to build a browser to meet the needs of real life, Microsoft has focused on what people really do on the Web. New features in Internet Explorer 8 are designed to make everyday experiences—searching, communicating, shopping, reading news—easier and faster in a way that people can really feel and appreciate.

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<sup>i</sup> Demographic Profile: Generation X Online, 2008, Jupiter Research Concept Report, October 29, 2008

<sup>ii</sup> Successive whitepapers will consider safety and privacy concerns.

<sup>iii</sup> A Consumer Product Strategy Introduction to the State of Consumers and Technology, 2008, Forrester, August 27, 2008

<sup>iv</sup> Demographic Profile: Baby Boomers Online, 2008, Jupiter Research Concept Report, March 4, 2008

<sup>v</sup> Benchmark 2008: Everyone Goes Online, But Gen Yers Are the Early Adopters, Forrester, July 21, 2008



***Microsoft***<sup>®</sup>