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GRAPHIC
EXCHANGE

WEB 2.0



KILLER APPS AND THE END OF THE “WORLD WIDE WAIT”

LET’S TAKE A RIDE IN THE WAY-BACK MACHINE TO THE PARTY OF 1999.

WE WERE EXCITED AND IDEALISTIC. THE “WORLD WIDE WAVE” WAS GAINING FORCE AND MAGNITUDE. WEBBIES WERE CALLING FOR THE DEATH OF BRICKS-AND-MORTAR BUSINESSES. THE WEB WAS OUR OYSTER, THE PEARL OUR PRIZE, AND EVERY KEEN ENTREPRENEUR SAW DOLLAR SIGNS BOUNCING ALONG THE HORIZON.

SO, WHAT HAPPENED?

by Andrew Cherwenka

The “World Wide Wave” turned into the “World Wide Wait” and we’ve been waiting ever since. For what? Nothing other than the next *big thing*—and now it’s here: new wave killer applications that are finally revolutionizing the web into what we always hoped it could be. The dot-com bubble confirmed that people were ready to embrace the web as more than just an info source. We wanted it all online. We wanted to shop from home, book tickets, webify our lives.

Unfortunately for some of the high-profile dot-bombs like [Webvan](#) and [Pets.com](#), one important hurdle hadn’t yet been overcome: the web experience was still slow, clunky and frustrating. Faster than driving to a store, yes,

but not fast enough—or smart enough—to really take off running. Many people concluded that the web was over-hyped; people began to lose faith, and the wave came crashing down hard.

The success of the dot-com age relied in part on a more engaging web experience, and [The Full Monty](#) hadn’t yet been bared at the turn of this century. When the bubble burst, the money left, and the development community was left scratching its head. It was a period of reflection, a period with limited front-end innovation, a lack of experiential inventions, and a shift back to the business basics.

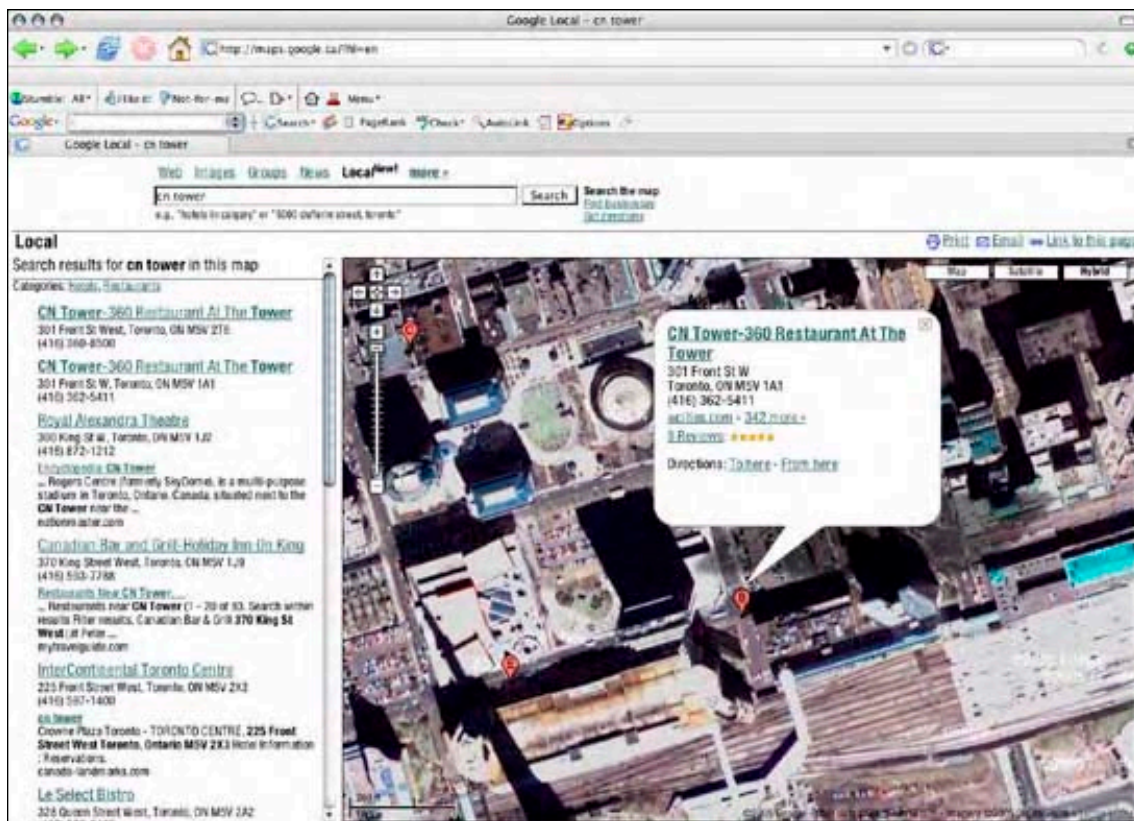
Until now.

GET READY FOR SOMETHING BIG

After the investors left looking for greener pastures, the posers were weeded out and shuffled off the playing field. The good news? Solid businesses were able to show their strength and endurance. Six years later we find ourselves on the cusp of a second revolution, and the die-hards are still standing. New terms are being coined left, right, and centre. Web 2.0? The Rich Internet Revolution? World Wide Wow? Or AJAX, a new acronym for the ever-popular JavaScript now sistered with asynchronous technology—in other words, no page loading. No matter how you brand the hype, get ready for a quantum leap forward in the way the web works.

As Wayne Gomes, our chief technology officer at [Rich Internet Group](#), observes, “The market is now ready to see just how powerful the web can be. It’s about harnessing a group of web technologies to dramatically enhance interaction and functionality. The essential end goal is a better user experience.”

So, where 1999 brought us a predictable outcome, this era is more like a shift in the web’s tectonic plates. The Internet back-bone is ready and able, with lightning fast 100 Mbps connections now commonplace worldwide. This brave new world promises that we can now officially say goodbye to the old-school “click-wait-refresh” pacing and finally leave the back button behind.



Google created a web-wide stir when it launched Google Earth in June 2005. Features like pointing-and-zooming anywhere on the planet, viewing driving directions, and “flying along your route” deliver an intense user experience that’s leading the Rich Internet revolution.

BYE-BYE BACK BUTTON, HELLO 2.0

Take Google and all the jazz surrounding Google Earth and Gmail, two great examples of the kind of fast, single-screen experience users crave and are starting to demand.

“IT’S NOT FLASH VERSUS HTML OR VERSUS AJAX. I THINK IT’S FLASH PLUS HTML USING AJAX TECHNIQUES TO BUILD WEB 2.0 APPLICATIONS.”

—KEVIN LYNCH, CHIEF SOFTWARE ARCHITECT, MACROMEDIA

Microsoft quickly responded with MSN Virtual Earth and a richer Hotmail solution. Jaguar is leading the communication highway with “live brochures.” Nike, always the image

leader in sports, is drawing traffic with its instant-video Tiger Woods ads. And Harley-Davidson is entering the ring with its build-your-own-bike customizer.

The point: the club is quickly expanding, and this is only the beginning. There are no designated boundaries here. This is a new wave of Internet development and a major leap in user experience.

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After years of momentum, the tipping point is teetering and almost ready to topple. Macromedia coined the term “Rich Internet Application” with the launch of its Flash MX product years ago to describe single-screen web apps with on-the-fly database feeds. Awesome—yet possibly too funky, too soon.

Today, mainstream web app developers are pushing the movement by combining asynchronous XML data requests with advanced JavaScript coding techniques, cleverly dubbing it “AJAX”. After only eight months in existence as an industry term, the buzz around AJAX has already surpassed Flash applications in search engine popularity. Current web browsers are doing a better job of conforming to W3C standards than their predecessors, making all of this possible.

What does that mean? It means that widespread adoption is imminent.

But do we really have to choose between our standard HTML interface technology and Flash or JavaScript? Both have their selling points. Flash excels in its rich multimedia strength, browser-independence, and its player penetration rate at an almighty 98%. On the other hand, there are legions more JavaScript programmers out there, and while Flash is browser-independent, AJAX is not proprietary. With Microsoft’s Atlas on the way and open-source frameworks such as Laszlo gaining solid footing, it’s anybody’s game. The absolute bonus for now is that these technologies can live together.

According to Kevin Lynch, chief software architect for Macromedia, “It’s not Flash versus HTML or versus AJAX. I think it’s Flash plus HTML using AJAX techniques to build Web 2.0 applications.” (delivered at the Web 2.0 Conference, San Francisco, October 6, 2005)

Smart usage of these technologies—singularly or fused together—is what is forging new ground and propagating the revolution.

TEN WAYS THAT THE WEB WILL CHANGE FOREVER

With a few different technologies to choose from, and no site redesigns required to get there, Web 2.0 promises some massive business benefits. Impressive success stories with specific business measurements are being published with increasing frequency.

U.S. retailer T.J. Maxx tested a single-screen Flash checkout tool against its standard multi-page HTML screens and reported an additional fifty per cent more in sales (Forrester—Flash Shopping Cart Boosts Conversion Rates—Harley Manning, Feb 23, 2005). There’s proof that these apps are not only cool, but are also bringing in the dollars. BMW’s build-your-own Mini site generated 12,000 qualified leads in its first year, exceeding its sales targets by 25% (Joshua Duhl, Rich Internet Applications: IDC White Paper, November 2003), and its popularity continues.

And NorthernObjects, our Rich Internet training centre, welcomes site visitors with an engaging and seamless embedded video. Once inside, they’re presented with a one-screen registration tool with go-anywhere non-sequential steps, live calendar updates on course availability, and instant database-driven prices. These features make the registration process fast and easy for the user, eliminating our administrative burden and increasing online registrations. Most multi-step, multi-page HTML processes can be repackaged as this kind of single-screen back-buttonless user experience.

But Big Business is not the sole benefactor. Everyone from your common developer to the average Joe will reap the benefits of Web 2.0. The web is getting more than just a basic facelift—it’s completely re-adjusting its personality.

Here are ten ways that the web will be changed forever:

Productivity. Interactive features like comparison tables and immediate data

updates are making the web faster, easier and considerably more shopper-friendly. See [Kayak's](#) “search with us, book with them” cheap airfare search and sort tool.

Graceful integration. Already spent millions on your website? Early adopters of these technologies are considering their

CONTEXT-SENSITIVE HELP, INFORMATION-ON-HOVER, AND INSTANT VIDEO...NO MORE WAITING IN QUEUES; THESE TOOLS HELP CUSTOMERS EMPOWER THEMSELVES.

often minimal investments into Web 2.0 as powerful add-on tools, like a new engine part in an already tricked-out Ferrari. The friendly cohabitating ways of Flash, JavaScript, and HTML will encourage this shift.

Ubiquity. The platform independence goal promises that eventually, all these applications will work on any browser and

OS platform. In many cases, this will spell the death of software installs.

Multiple channels. Is this just for *yoursite.com*? Hardly. Think in-store web-enabled kiosks, intranet sales tools, and extranet partner apps. Web 2.0 tools can be used in various simultaneous channels and

repurposed to serve many. Major retailers like [Sears](#) and [Shopper's Drug Mart](#) are looking beyond their websites and integrating rich, highly functional in-store kiosks.

Intuitive tools.

Context-sensitive help, information-on-hover, and instant video—the days of abandoned sites and the entrenched necessity of the call centre may be nearing an end. No more waiting in queues; these tools help customers empower themselves.

Many releases. “Release early, release often” is the Google mantra and one of its

golden keys to success. With development speeds in the 50%-faster range, expect to see new web applications spawn like bunnies.

Bravery. If a new tool fails and the HTML backup still exists, what's the risk? Not much—in fact, low enough that we can expect to see countless examples of beta bravery. Beta versions nowadays are backed by large marketing dollars. Confidence is on the rise.

Reduced bandwidth consumption. With smarter, less traffic-intensive features like client-side caching, asynchronous calls, and message compression, runtime efficiency is improving by up to ten times over the HTML equivalents. eTrade's [QuickQuote](#) rich applet reduces bandwidth consumption from approximately 10k per request to less than 1k. If the Internet was a highway, imagine rush hour with less than one-tenth the traffic.

Increased bandwidth consumption. And yes, the requirements are lighter. But on the flip side, increased demand for instant-video and database-driven applications will likely

drive already-high bandwidth usage into the stratosphere.

Many mashups. Expect to see a proliferation of value-added application combinations—like [www.housingmaps.com](#), an interactive housing tool created from the union of Google Maps and [Craig's List](#) apartment rental data.

This list will continue to evolve and astound. Venture capitalists have finally returned, scouring the industry for big-ticket hopefuls, and the development world is charged with a new energy and growing anticipation. At long last, the “World Wide Wait” is over. You're going to need a bigger boat. Web 2.0 is making some serious waves—so hold onto your suits.

Andrew Cherwenka (acherwenka@richinternetgroup.com) is VP business development at Rich Internet Group, one of the web app development shops leading the worldwide Web 2.0 movement. He can be contacted at 416-593-9497 or visit www.richinternetgroup.com.

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