



## TECHNOLOGY INSIGHTS

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## Super Software—Technoledge Tested Browser Banquet—4 of the best

Microsoft won the first browser war against Netscape (see Briard's tale [Browser Brawls](#)) ten years ago, but new upstarts have gained a foothold once more, led by Mozilla's Firefox. In this comparison, we'll focus on **Internet Explorer 7**, **Opera 9**, **Safari** and **Firefox 2**.

### Browsers

If you're wondering why so many companies try so hard to carve out a patch in this crowded market for a free product, it's because there's money in browsers. We don't see it but, by some estimates, Mozilla makes \$50 million a year out of Firefox (see end of article for more details).

Once browsers were simple windows to the World Wide Web. Today they're more like large clubs that offer enormous variety, from meals to news to stage shows. The smart set tends to crowd around Firefox, which puts on the best shows. The really smart folks love Opera because Firefox isn't really that cool any more, and the smartest have discovered Safari because it's a brand new show in the Windows world.

### User Experience

That's what clubs are about – the TV screens have to be big, clear and glossy, the games have to be clever and varied, and the shows spectacular. The content doesn't matter, it's the show that counts.

**Firefox** steals the show, there's no argument. You want dancing girls, you've got them. Elephants on stage to remind you of Verdi? No problem. A Wagner Helden-tenor singing from the right wing? Why not three? Firefox is a slick production, Hair, Aida and Les Miserables rolled into one.



The add-ons, extensions, themes and plug-ins make an opera company's wardrobe department look like an opp shop. The sheer number of choices makes it easy to waste the rest of your life playing around with them.

A vast artist colony keeps creating add-ons for Firefox, a veritable Woodstock of artisans weaving unusual fabrics and patterns, and inventing knick-knacks that are hard to resist.

Themes abound as well, pages and pages of them, and you can waste whatever's left of your life installing and uninstalling them.

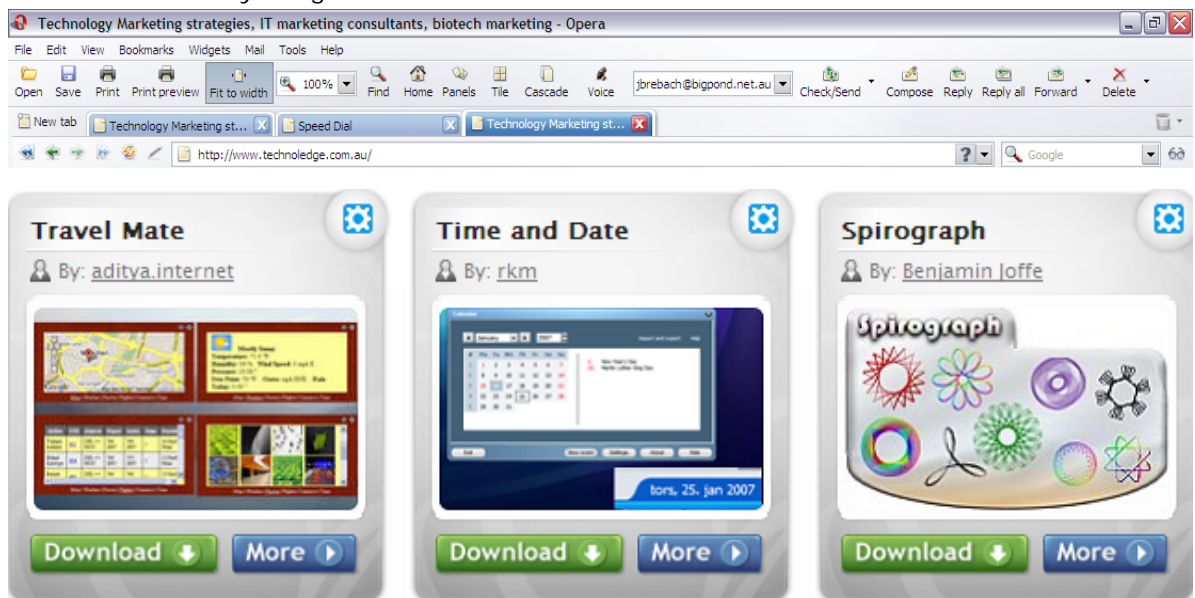


**Internet Explorer 7** doesn't offer a lot of fun options—it's a different kind of browser focused on news and shopping. Trying to install a few add-ons can be a hit-and-miss affair. Microsoft uses CNET for the downloads, and that means you

have to install these things like other Windows programs. Firefox does it so much better right there in the browser.

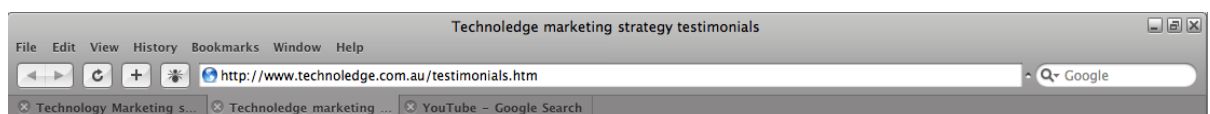
My first attempt, Inline Search, simply never showed up in the downloads folder or anywhere else. The second, Stumble Upon, popped up a message saying it had a problem installing itself in IE7's control panel and made various suggestions that didn't work. Third time lucky with the Windows Live toolbar, which took ages to install. All it offered were quick links to MSN, Hotmail and shopping channels so I turned it off because I like my browsers slim. IE7 doesn't offer many layout options except for toolbars.

**Opera** is another movable feast but this browser's widgets and gadgets are in the same mould as the clutter offered by Google and Yahoo.



There are clocks and recipes and gadgets for BitTorrent and Pandora Music. There aren't many things in Opera's wardrobe that help the working man or woman, so we can only wonder why it's called Opera.

After getting lost among these lavish stage props, the simplicity of **Safari** is refreshing. And the options list is as short as the lunch menu at a corner café.



It's a slick menu but the dark brushed metal theme makes it pretty hard to see the tabs. It's tricky to pick which tab is open since there isn't even a red cross on it. Pretty bad.

The result for this section is clear-cut: **Firefox** wins the Oscar for best wardrobe design.

## Performance

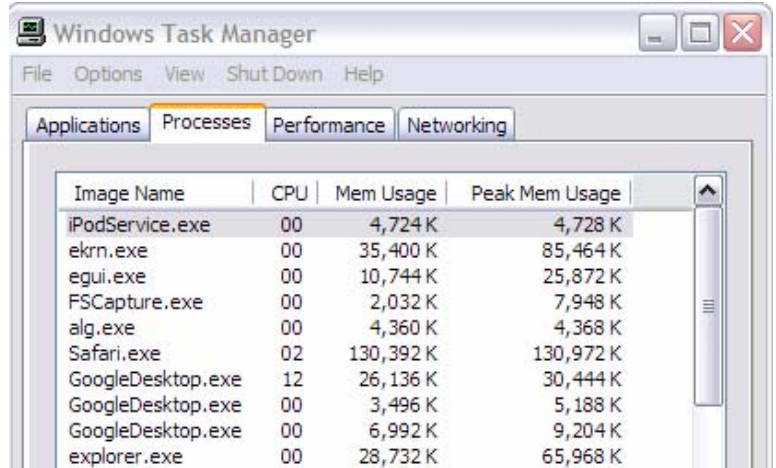
If you use your browser for serious work, speed is what you want most of all, and Safari makes good on Apple's claims that it's several laps ahead of the rest. The extra turn of speed Safari offers is always obvious, even on a fast PC accessing fast-loading websites.

IE7 is the surprise winner in the cold start stakes, followed by closely by Opera with a gap to Safari. Firefox takes ages to stagger onto the stage. It takes nearly 30 seconds (almost as long as Windows XP) despite applying various cattle prod tweaks I found on Firefox forums. Unloading all the add-ons makes no difference either.

Leaving Firefox running all the time solves the cold start problem but introduces a new one: FF gradually gobbles up a lot of RAM and then drifts into a postprandial languor. All these browsers soak up more RAM as the day goes on, but not to the same extent as Firefox. Clearing the stage and restarting the browsers doesn't tend to bring the lost memories back either.

Opera is less greedy than the others here. It's less demanding to begin with, running in a mere 20 to 50mb of RAM depending on the number of open tabs. IE7 starts small but quickly blows out to 70 or 80mb, and Safari balloons to 130mb with 10 tabs open.

That was a big surprise yet didn't affect Safari's speed. Still, the champion RAM raider is Firefox – I've seen it chew up 300mb with a dozen or more tabs open.



| Image Name        | CPU | Mem Usage | Peak Mem Usage |
|-------------------|-----|-----------|----------------|
| iPodService.exe   | 00  | 4,724 K   | 4,728 K        |
| ekrn.exe          | 00  | 35,400 K  | 85,464 K       |
| egui.exe          | 00  | 10,744 K  | 25,872 K       |
| FSCapture.exe     | 00  | 2,032 K   | 7,948 K        |
| alg.exe           | 00  | 4,360 K   | 4,368 K        |
| Safari.exe        | 02  | 130,392 K | 130,972 K      |
| GoogleDesktop.exe | 12  | 26,136 K  | 30,444 K       |
| GoogleDesktop.exe | 00  | 3,496 K   | 5,188 K        |
| GoogleDesktop.exe | 00  | 6,992 K   | 9,204 K        |
| explorer.exe      | 00  | 28,732 K  | 65,968 K       |

Firefox gets sluggish but it rarely gets stuck, while IE7 staggers under the load of 10 open tabs, its eyeballs glazing over. Opera slows down a little but hangs in there, while Safari doesn't seem to care how many tabs you open.

### Functionality

A full review of these browsers would run to more pages than War and Peace, so we'll focus on the differences. **Internet Explorer** offers little that isn't matched by its competitors, but then it had a lot of catching up to do. One thing it does better than the rest is font rendering - Fonts in Firefox and Safari don't look that good, and Opera adds a blur to them that makes you reach for a cloth to wipe the screen with.

**Firefox** offers inline spell-checking, a session-restore feature and the option to reopen closed tabs. The staggering range of add-ons available for Firefox means that there's bound to be one (or a dozen) to meet the most esoteric demands.

**Safari** is the only browser that doesn't offer phishing protection, but it makes up for that with a private browsing feature (more on this so-called 'porn mode' under security) and an inline search facility that launches a search with a simple click on a highlighted word in a web page.

**Opera** lacks nothing compared with the others here. It pioneered features like session restore and the saving of browser sessions, and the latest version provides a trash can where you'll find what you thought you'd lost. Opera makes some things really simple, like tweaking the appearance of the browser – every change you make takes effect in real-time without the need to shut the browser down and start it up again.


The speed-dial feature is useful, taking you straight to a launch pad stacked with your 9 favourite websites (as thumbnails). Thumbnail views also come up when you mouse over tabs.


Once you get behind the scenes of this attractive stage, its easy to get lost in the myriad of ropes and levers, rooms and passages. The good news is that Opera offers plenty of helpful guides, tutorials and how-tos for almost everything you can do with it. The bad news is it takes days to go through training and rehearsals. You don't have to, of course, and you don't have to go behind the scenes either.


For something completely different, Opera offers 'mouse gestures' as well as keyboard shortcuts.


 **Open new document**  
Move down

 **Reload**  
Move up and down

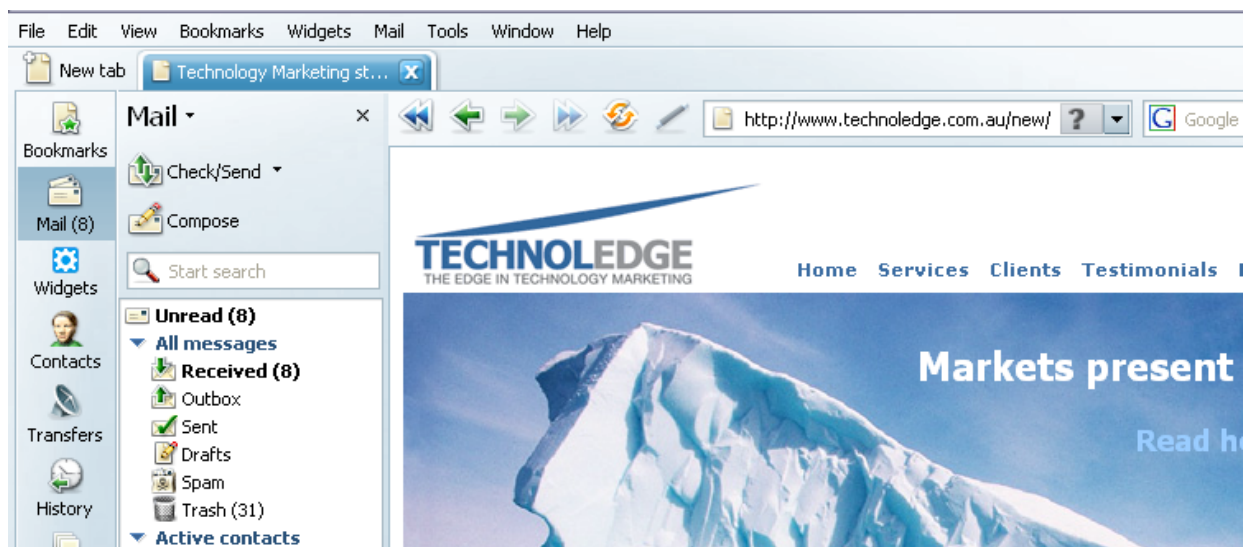
 **Restore or maximize window**  
Move up then right

 **Jump from one window to the next**  
Hold right mouse button and roll wheel

 **Zoom in and out**  
Hold **Ctrl** key down and roll wheel

 **Move back and forth in page history**  
Hold **Shift** key down and roll wheel

Opera is alone among these browsers to offer **email**. It's accessible right in the browser, from an auto-hide sidebar and its own tab. Email doesn't add any extra load and this makes Opera attractive to users who just want the basics in a convenient package, or those who work on low-powered systems.



The winner in this category is hard to pick. **Opera** has loads of functionality but it's harder to get a handle on than the more easily accessible features offered by **Firefox**.

## Security

IE7 reflects the heavy hand Microsoft has opted for in recent times, after years of being soft on security. The new crackdown only highlights the flaws of Active X applets, which Microsoft embraced years ago and now spends most of its time blocking. It doesn't make IE7 more secure but it sure makes it a pain to use.

The three other browsers use Java instead of Active X, providing more security along with an easier ride. One redeeming feature IE7 has is the McAfee Site Advisor plug-in (also available with Firefox) but the plug-in fell off one of my IE browsers a while back and no amount of fiddling with IE7's add-ons manager can bring it back. It seems it's locked itself in the dressing room and refuses come out on the stage.

With its market share growing, Firefox has become the second target for hackers after Internet Explorer. Opera and Safari are far safer for that reason alone – in this case there's security in small numbers. That's a blessing for Safari, which isn't quite up with the others in the security stakes due to its sheltered upbringing in the Mac world.

Safari's unique contribution to security is its 'porn mode' feature. The others let you clean up your footprints after a surfing session but Safari gives you the option of not leaving footprints to begin with, in the 'private browsing' mode. You can go wherever you want and your PC keeps no tracks, footprints or snapshots of your trip.

## Summary

If I've given more than equal space to **Opera** here, the reason is that it deserves more space. Opera offers every conceivable feature, from customizable keyboard shortcuts to built-in BitTorrent, RSS and email. It's also the most compact browser here, the most configurable, the most secure and the most compatible with internet standards.

Sadly, it's not the best-looking browser and none of the hundreds of optional make-up kits can disguise it. Despite its great features, it's not as intuitive to use as the others, or it just takes more time to get used to. For power users, the learning curve is definitely worthwhile.

For the rest of us, it's an odd mix of attractive and rigidly logical features, a show that isn't as engaging as it should be and a storyline that can be hard to follow. More Henrik Ibsen than Hemingway.

If your needs for entertainment are simple and speed is of the essence, **Safari** will be a good choice when Apple adds anti-phishing and better lighting that makes the show easier to see.

**Internet Explorer** is an ordinary show but it looks clean and wholesome with a plot that isn't too demanding. It does the job if your tastes lean to the straightforward and security isn't a huge concern.

It's not hard to see why people get excited about **Firefox**. The add-ons aren't just plentiful but really useful and well-done, but there's a risk of ending up with a show on the scale of Wagner's Ring Cycle. Even in its basic form, Firefox seems to have a large cast that takes too long to get organized. There's also a suspicion that the folks at Mozilla have run out of ideas – version 2 wasn't a huge leap forward from version 1.5.

Despite those grumbles, Firefox is such an engaging production that one tends to forgive its hiccups. It would be nice to find a browser that combines Safari's speed, Opera's flexibility and Firefox's appeal in a single package. There isn't but least we have some decent choices these days.

