

Usability Tools: A Useful Start

Your Web site's usability drives its success or failure. Usability ensures that visitors can understand how to interact with your site. If it's easier to buy something or find information at another site, why should users bother with yours?

The best way to improve your site's usability is to observe your users interacting with it and then incorporate their feedback into your design. However, if you're inexperienced with facilitating usability tests or lack the resources to conduct a test, consider employing some automated usability tools that provide a head start in designing a more usable site.

Today, there are only a handful of usability tools. WebSAT and the Lift services evaluate the HTML code of Web pages based on a set of usability guidelines. Max performs a statistical evaluation to generate a site rating. Finally, NetRaker remotely surveys users to gather usability feedback.

Keep in mind that these tools are only a starting point. Using them is like using Microsoft Word to check your grammar—they're good for highlighting potential problems, but you'll need to evaluate each identified issue for its appropriateness. The tools are good for checking routine site-design elements for consistency, and encouraging good design practices. Use them to complement directly observed usability tests.

WebSAT

National Institute of Standards and Technology (NIST)
zing.ncsl.nist.gov/webmet/sat/
websat-process.html

Free

Web Static Analyzer Tool (WebSAT) is one of the tools included in the WebMetrics suite developed by the National Institute of Standards and Technology (NIST). This tool highlights potential problems by checking the HTML of individual pages against a set of usability guidelines. WebSAT reviews your HTML to see if it's implemented in a usable manner. WebSAT is free, and can either be used online or downloaded to your PC or UNIX box to test intranet pages behind a firewall.

With WebSAT, you can enter up to five individual URLs to be checked against its usability guidelines. One guideline for navigation is that the user should always be able to get to another page. In the associated HTML check, WebSAT will look for at least one link on each page. After WebSAT's evaluation, it provides a report of problems found on each page entered.

WebSAT identifies potential usability problems according to six categories: accessibility, form use, performance, maintainability, navigation, and readability. The online site presents an extensive explanation of the usability guidelines for each of these categories, and links to online resources.

- **Accessibility**—ensures that the page makes proper use of <ALT> tags for visually impaired users.
- **Form Use**—primarily checks for the presence of form Submit and Reset buttons. Deploying a Reset button may be unwise because it lets users erase their input.
- **Performance**—analyzes the size and coding of graphics in relation to page download speeds.
- **Maintainability**—checks for tags and coding information that would make this page easier to port to another server.
- **Navigation**—does only a basic check on how links are coded, and does not provide any feedback on the site navigation and labeling effectiveness.
- **Readability**—provides an interesting evaluation in terms of the density of links versus content.

In summary, WebSAT is useful for ensuring that your HTML follows good coding practices and for learning some basic usability guidelines. The reports could be improved by

providing specific recommendations rather than just identifying problems. WebSAT's main limitation is that it can check only individual pages, which prevents you from evaluating pages in the context of an overall site, but its free pricing can't be beat.

Lift Online and Lift Onsite

UsableNet.com
www.usablenet.com

Lift Online—\$1 per page with a maximum of \$50 for a report of your site. (Lift Online Pro available September 1, 2000.)

Lift Onsite—Yearly subscription will be \$199 with a special introductory price of \$149 before September 1, 2000.

UsableNet.com offers a service called Lift that analyzes your Web pages for potential usability problems. Lift is available as an online service called Lift Online Pro, and as a subscription-based software tool called Lift Onsite. Lift Online Pro will be available only after September 1, but I looked at a demo version called Lift Onsite for this review.

Lift Online performs HTML checks derived from usability principles, much as WebSAT does. The demo version lets you evaluate one page at a time and provides a detailed report on the page's usability issues. The report provides an overall rating and a prioritized list of potential problems.

Lift Online goes beyond WebSAT by providing specific code change recommendations. For example, if a page is deemed to be too heavy for a quick download, the report provides a breakdown of the page download size according to its basic size (the HTML code) and the image download size. Further detail lists all of the graphics on the page along with their file sizes. The report is made complete by providing

**online
resources**

Usability's tough to measure. Find out more about usability testing at these sites.

measure for measure

open ALURE specification
www.alurexml.org

WebCriteria
www.webcriteria.com

UsableNet
www.usablenet.com

eSpective
www.telemate.net

NetRaker
www.netraker.com

Optavia Corp.
www.optavia.com

The Visualization & Virtual Reality Group
zing.ncsl.nist.gov

the usability rationale behind each of the recommended changes. This detail helps you make quicker design changes.

An important feature of Lift Online Pro will be evaluation of complete sites. (I am basing this statement on what's described on UsableNet's site.) My impression is that you would enter the URL of a site's home page and that it would automatically spider through the site to check all subpages. You use Lift Online Pro to check for consistent implementation of items like background colors and images, font usage, and navigational elements.

Lift Onsite is a subscription-based software tool that you can run from your computer. The subscription lets you update the software as Usablenet.com develops additional usability evaluation rules. Lift Onsite provides the very compelling feature of directly fixing the HTML problems as you review them in the evaluation report. This is extremely convenient for making immediate improvements.

Lift Online provides thorough recommendations for improving a site's pages. However, I prefer Lift Onsite to Lift Online because it lets you make improvements to your site's HTML as you're going through the evaluation results.

Max

WebCriteria
www.webcriteria.com
Contact for pricing

WebCriteria uses an intelligent browsing agent named Max that crawls through your site to gather vital statistics and rate your site's usability. Max uses a statistical model to simulate a user's experience to arrive at ratings in three areas: accessibility, load times, and content.

Max's accessibility evaluation measures how quickly a user can find something on the site. The rating is given in terms of the estimated time it takes for users to find what they're searching for.

The first factor in calculating accessibility is the link scan time, which is based on the premise that links placed higher up on a page are more accessible. This calculation is contentious; links at the top aren't necessarily highly visible or accessible. Many users may have learned to scan over the tops of Web pages to ignore navigational items and banner ads to focus on the page's content.

The second factor in measuring accessibility is the browse path, which averages the shortest

number of clicks between the starting page and any given page, illustrating how deep a user must drill down to access a page.

The calculated access time should be used only as an initial benchmark, because it doesn't take into account the use or effectiveness of the site's search engine. The analysis assumes that all links are equally seen and understood by users, which isn't always the case.

Max does a good job of reporting the average time it takes your site's pages to load. The report provides a useful comparison of download times at office versus home speeds. The report also provides a distribution of pages in terms of their download times. A nice feature of the report is that you can download it into a spreadsheet for further analysis.

In the third evaluation area—content—Max summarizes the percentage of different media elements (text, graphics, multimedia) and client-side technologies used (Flash, PDF, and so on) that comprise the site. The main use of this component is to compare your site against your competitors' for an appropriate balance of media elements and client-side technologies.

If you need only a quick numerical analysis to grade your site, Max is for you. This service is useful for evaluating your site at regular intervals so that you can track its performance over time. Max's main strength is in providing you with a performance benchmark, but it doesn't provide many suggestions for design changes.

NetRaker Suite

NetRaker Corp.
www.netraker.com

Monthly subscription; contact for pricing

NetRaker Suite comprises online tools that help identify usability problems and conduct market research. NetRaker lets you create online surveys that gather feedback as users interact with your site. Essentially, NetRaker provides you with a limited version of a remote usability test. The main advantage of this approach is that you can collect feedback in the context of your site's intended purpose as opposed to relying on generic HTML checks or statistical evaluations.

NetRaker provides a customizable set of usability survey templates and comprehensive guidelines to help you compose objective survey questions. The questions are randomly made available to your site's users, who are

given the option to participate. The survey asks users to perform tasks on the site and then provide feedback on how easy the tasks were. A graphical summary is provided as users contribute to the results.

NetRaker also lets you conduct market research with similar surveys to gain an understanding of your users and their expectations. The SiteRaker download performance tool monitors your site's download speeds against those of your competitors, and provides great added value by monitoring site performance across nine major metropolitan areas, with global tests available in the next few months.

With NetRaker, you can survey a number of users quickly to gather usability feedback. The automated process ensures that users are surveyed consistently. You can reuse the same survey to evaluate the site after significant design changes to see if it's improving.

NetRaker is definitely one of the best tools to identify usability issues, because it's based on direct user feedback. Of course, the pop-up survey might be a minor irritation, and even more so if the user has a slow modem connection. NetRaker should incorporate an option that would prevent the pop-up survey from appearing on a regular basis: Every time I go back to its site, the same pop up appears, which eventually becomes distracting.

A Final Word

Each of these usability tools can highlight potential problem areas within your site. WebSAT and UsableNet.com's Lift services provide usability-based HTML validations to ensure good coding practices. WebCriteria's Max provides numerical analysis that's useful for tracking performance with quantifiable metrics. NetRaker is definitely my preferred choice, providing direct user feedback that can be used to derive site design improvements.

As I mentioned earlier, these tools are best used as indicators of your site's usability, and should be complemented by directly observed usability tests. Once you've made your design changes, you should test your site again to make sure that each change is actually an improvement. As you continue refining your site based on user feedback, I'm sure that you'll find more of your users clicking to your site's success.

—Andrew Chak

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