

# **WebMetrics: A Methodology for Producing Usable Web Sites**

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This work describes a methodology for designing and evaluating web sites and web applications. Our methodology is based on the premise that tools and techniques for design and evaluation must be rapid, remote, and automated in order to be useful for web development. To date we have developed three tools (WebSAT, WebCAT, and WebVIP) and three techniques (beta testing, kiosk-based testing, and scenario collection).

WebSAT is what we term a “usability awareness” tool. This software examines the html of a web page, checks against some usability guidelines, and advises the developer about potential usability problems. The developer can then arrange to have further usability testing done on the site or make design changes to avoid any problems.

WebCAT allows designers of web pages to test the usability of the site organization. The designer specifies the categories and items or subcategories using WebCAT and a classification exercise is automatically produced. The URL for this exercise can be distributed, along with directions, to potential users. As they work through the exercise, the results are automatically collected and analyzed for use by the designer.

WebVIP instruments a web site allowing usability engineers to easily conduct usability tests and obtain the paths users follow along with time stamps. These tests can be conducted remotely if desired.

We describe how to use beta testing to successfully obtain usability information for simple web applications. We also describe issues in developing a kiosk-based usability test. Such a test is suitable for remote, automated data collection. We conducted a virtual design meeting over the web, collecting scenarios from users as input for design consideration, and we describe how we implemented this collection process.

We show how these tools and techniques can be combined into a methodology to redesign an existing web site or to produce a usable new site or application.