Five Steps to Unlocking a Web Site's Potential

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For some companies, designing their Web site to have spectacular graphics has been their most important goal. Although this strategy may work in the short term, in the long term it could prove disastrous if the site fails to attract and keep repeat customers. Businesses and organizations that design their sites to do little more than showcase a company name soon realize that attracting customers takes far more than dazzling graphics.

Companies enjoying Web success study users' needs and behaviors, and consider the human factors of design. Human factors are variables based on principles and methods taken from the behavioral sciences. Human factors include limitations known about human memory, cognition, and perception. It takes a systematic approach to incorporate human factors into a complete set of user-centered solutions.

Developers must consider many factors: Is the site self-evident, providing useful, detailed information from the very first page—for example, does the home page give information about how users can accomplish their goals and tasks? How easy is navigation? Can the site link to more inclusive information? Most important, developers need systematically researched information about who needs to access the site and what their goals and objectives are in using it. Eighty percent of user-centered design depends on having a thorough understanding of

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psychographics, including the users' wants and needs, security concerns, and mental models of a site's functions and organization.

Targeting potential customers who will buy over the Web takes careful study of current and future customers. That means identifying the relevant human factors. Successful Web site owners identify who uses their sites, why, and what users expect to find there. Developers must also be aware of how urgent users consider Web-based activities: Do they multitask or do they leisurely do one Web task at a time? Analysts gather this type of data using observations, questionnaires, interviews, and focus groups of a cross section of Web sites' intended users. After that, it's a matter of applying the knowledge and principles of human behavior to the design.

A SYSTEMATIC APPROACH TO WEB DESIGN

Companies such as Amazon.com and Dell Computers have experienced financial success in e-commerce by studying their users' human factors. Implementing a five-step process in developing their sites helped these companies ensure customer satisfaction:

- determine the functional level,
- determine the task flow level,
- design the high-level architecture,
- test the detailed design, and
- measure user satisfaction.

Determining the functional level

The first step is to identify the users and decide what you would like them and your company to accomplish at your site. This entails researching user profiles and finding out their degree of understanding of your products or services. For example, before creating a Web site, a company that sells art must establish up front what visitors it is trying to attract: Is it selling art to sophisticated art dealers or to the general public?

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Once you've established the audience, the next step is to conduct psychographics research to identify what motivates your customers to engage in e-commerce. Are they looking for convenience, price, selection, or emotional satisfaction, for example? Visualize what customers will see when they get to your site and decide what kind of experience you would like them to have there. For example, does your site include a lot of animation and extensive graphics that take forever to download? Or is it clean and crisp, giving viewers immediate information about where they are, who the company is, and what the company does? Furthermore, does it offer users an avenue (such as a phone number or e-mail address) to get more information about the business, products, and services? Although standard demographics related to age, culture, and buying power are helpful, the customer's psychological reasons for using the site are more important.

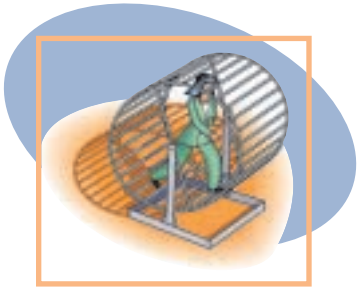
Using a protocol for gathering data, human-factors professionals can coordinate individual observations and interviews with representative users. This includes questionnaires and data gathering about user skills and knowledge. Additionally, these professionals can observe a sample of representative users to see how they use the Internet and to assess their navigational skills. Systematically gathering data from representative users is critical to designing and launching a successful site.

Determining the task flow level

This second step is equally critical. The design process, for the task flow, must always be user sensitive. It is important because the ultimate goal is to have a site that provides a compelling user experience. In many cases, companies spend an enormous amount of time designing a site, only to have it changed during development without considering how these changes will affect the task flow of the users coming to the site.

Designing the high-level architecture

This step usually involves designing the first seven to nine top-level screens. A well-designed site provides easy navigation through these top screens and lets users easily see where they are in the hierarchy. The process requires usability testing of the high-level screens, with representative users following the most critical tasks from the task flow analysis using prototypes of the high-level design. Redesign then checks that the high-level architecture meets the users' objectives by incorporating the usability test results.



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"Ideally, you want to create a site that says 'here is what we are all about,' and include the top four or five things the user can do there," says Noel Caban, executive producer for Youthstream Media Networks, a New York company that provides young adults with online services, content, and community building through its Web sites, mybytes.com and sixdegrees.com. "When you don't think in advance about the human factors involved with a site, you are basically creating obstacles for users, and ultimately they will be reluctant to go there. You have to be very sensitive to the obstacles users may face or they will walk away."

Testing the detailed design

The user interface's detailed design derives from high-level architecture design. The site's detailed design requires additional data gathering from representative users at a much greater level of detail than required for the previous high-level architecture design step. In far too many cases, company officials design Web sites more for their own satisfaction than for the user's. Many Web sites confuse users. When they branch off from the site to get to another level, users see an entirely different look and feel—perhaps a design that doesn't even remotely reflect the home page. They can get lost. That's why consistency is important throughout the company's entire online presence—in color, interaction design, and information.

Measuring user satisfaction

BizRate.com is one of the most popular of many Web-based services that measure user satisfaction. After buying a product from a participating Web store, customers can voice their opinions about their shopping experience and the store in general. Then, two days after the expected date of delivery, BizRate sends these customers an e-mail message with a link to a survey where they can rate attributes such as the store's on-time delivery, shipping and handling, and customer support. In these surveys, users have expressed satisfaction with numerous sites, including those of Dell, Amazon.com, and CWeb.

Unfortunately, Web site awards often go to the sites that have the most breathtaking graphics or sophisticated animation. Visual appeal has its place, but it is not as important as the ease with which users can get the information they're looking for and accomplish their intended tasks.

For example, most users find the loading time cumbersome in sites that have a lot of animation. An overabundance of animation can also be very distracting. Acceptable site animation, on the other hand—for example, at sixdegrees.com, Amazon.com,

and Dell—is tasteful, rotates only a couple of cycles and then stops, and provides valuable information to the user.

OVERCOMING OBSTACLES

Studies show that 80 percent of most types of obstacles to building a successful Web site occur within the first two process steps (determining the functional level and determining the task flow level). These two levels pertain solely to understanding the users and what they are trying to accomplish.

Without carefully addressing these two issues, designing an effective architectural and navigational scheme is very difficult. Many companies, in a hurry to get on the Web, create a quick prototype and start coding. Unfortunately, they haven't investigated the most important aspect: the human factor. Who will use the site and what will they expect to get from it?

Without a systematic process from inception, few sites will survive the onslaught of competitors that take these user-centered design steps seriously. Confused users and those who feel they are not getting the information that attracted them to the site in the first place will simply click away to a competitor to spend their money. On the other hand, by following these five key steps toward functional, user-friendly Web design, you may find that the blueprint to success is in your site. ■

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