

By JOHN FRITZ

Over the past five years, I've spoken to different groups about building effective campus Web sites. Sometimes I talk about what we've done at the University of Maryland, Baltimore County, or what I've observed other institutions doing. But usually I prefer to hear what participants are doing and tell them what I think—or what I think their users will think.

Lest you think I'm full of myself, let me explain how I do this. What follows is a recipe for "John's Quick and Dirty Web Usability Workshop." (Prep time is approximately 20 minutes.)

You'll need the following ingredients:

- one dozen eager campus Web professionals (or any multiple of three)
- one computer with Internet connection
- one data projector to display the computer screen overhead
- one conference room
- one remote hallway or room
- one volunteer to play the role of "site owner" (must be his or her site)
- one volunteer to play the role of "dumb user" (must *not* be his or her site)
- one interviewer (preferably with no connection to the user's or owner's sites).

The directions are relatively simple. Just follow these steps:

1. Assemble everyone in the conference room with computer, Internet connection, and data projector.
2. Ask the user volunteer to retire to the remote hallway or room.

3. Ask the site owner volunteer to stand in front of the remaining eager campus Web pros.

4. After brief introductions, ask the site owner to show and tell you at least two things about her site, such as its main purpose (for example, an opportunity it provides or a problem it solves for users) and one or two specific tasks users should be able to complete on the site (find the name of the instructor who teaches Biology 100, for example, or find the hours of operation for parking services). This step should take about five to seven minutes.

5. Ask someone in the room to retrieve the user. In the meantime, try to clear the Web browser's cache and refresh it so the visited links (displayed in different colors) aren't visible to the user. Also, inform everyone (including the site owner) that only the interviewer can speak to the user when he returns.

6. When the user returns, briefly introduce him, and then ask him to do the following:

Relax. Tell the user that this is a short test about the site, not him. As such, he can't do anything wrong.

Think out loud. For the test to work tell the user, "We need to know what's going on in your mind when you use the site." Instruct him to try to think aloud about everything he sees, does, or experiences on the site and to tell the group if and when he gets stuck and why.

Ask "What's the main purpose?" Then ask the user to perform the specific tasks the site owner said could be done, continuing to think aloud.

7. When you've exhausted the tasks or interview (it should take about seven to nine minutes total), re-interview the site owner and ask her to tell you what she saw or learned while watching and listening to the user. Invite the remaining eager Web pros to share what they saw and learned too.

8. If there's time, divide the audience into groups of three and repeat steps one through seven, with each person getting a chance to play site owner, user, and interviewer (except for the first two guinea pigs who've already played one of these roles).

9. Stand back and watch user-centered design in action.

LESSONS LEARNED

For fans (like me) of Steve Krug's *Don't Make Me Think*, you'll recognize the basic outline of his Web usability script (available in the first edition of his book or online at www.sensible.com). Two years ago, I attended one of his day-long workshops in which he quickly but expertly reviewed participants' sites, recording and playing back his computer screen actions and comments with a cool tool called Camtasia (go to www.techsmith.com for a demo and free trial). I've adapted my sessions somewhat by assigning the user and owner roles to people who likely wouldn't be familiar with each

other's sites, if only to make the owners pay attention to real users and not me.

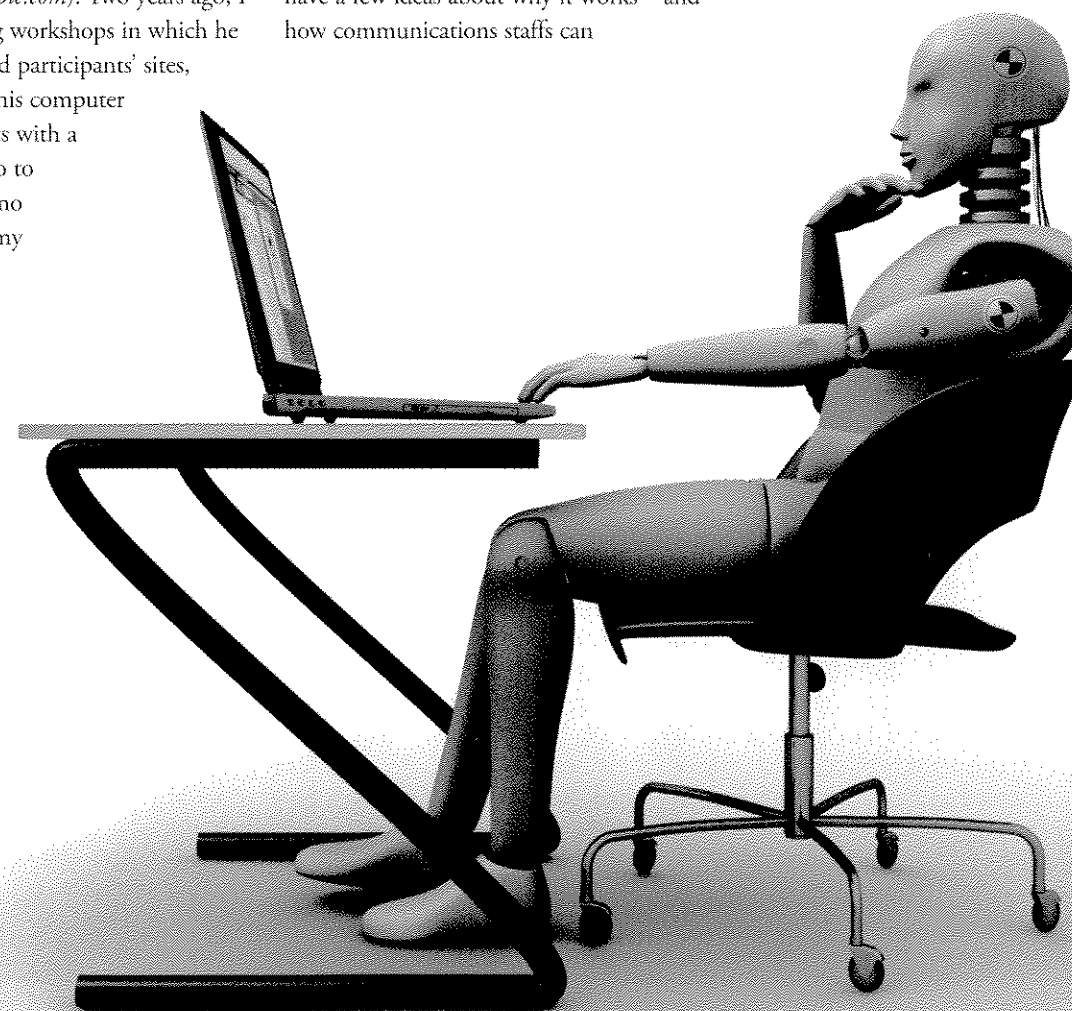
Granted, my demo is quick and dirty, designed only to raise awareness about Web usability, which Krug described in a 2001 WebTalkGuys.com interview as "making whatever you're working on easier to use for whoever is going to use it." Most usability tests include more preparation, tasks, and analysis, and a growing number of experts in the field of human computer interaction employ usability testing as part of a larger process known as user-centered design. Jakob Nielsen, the acknowledged guru of Web usability, even coined the term "discount usability" after he found that you don't need to test a lot of users to find most of the problems with a Web site: Usually five to seven users will suffice.

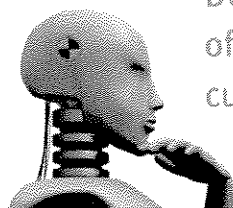
Cheap trick aside, whenever I do my conference shtick, I'm always amazed that it works. Still, I have a few ideas about why it works—and how communications staffs can

WEB Usability

A process and a goal

ILLUSTRATION BY GOREY I. ONIUE FOR CASE





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use it not only to improve their sites, but also to help bridge the gap that sometimes divides them from their IT Web colleagues.

WHY TESTING WORKS

First, it's hard to argue with users. Sure, we can try in a workshop like the one I've described, but first-time users of our sites often don't see what we think is clearly evident, and they certainly don't do it in front of an audience that can help them. Instead, as they click around in a silent, solitary quest, their perception is our reality, whether we like it or not. Frustration (and potentially the competition) is just one click away, and workshop participants see that in action.

Second, we rarely use, let alone build, Web sites in a group. Consequently, when you browse a site in a group, you start to confirm or contradict your perceptions with the experiences of others. You also begin to develop a shorthand of common experience as you test and review one site after another: "Oh, I see Bill skipped the submit button on John's site, just like Jane did on mine."

From 1998 through 2002, I attended an informal, annual gathering of 20 or so like-minded college and university Web developers, and to this day, I consider it one of my best professional development experiences. The agenda for these meetings was simple. We'd meet in a hotel or campus conference room for no-holds-barred, show-and-tell sessions. At first, it was

intimidating, but I think we all soon realized the Web was still too new for there to be any real "experts." So what we really needed was experience, candidly shared with and by people who could articulate it and whom we could trust. We don't meet in person anymore, but occasionally we meet online, posting new problems, issues, or job openings to a listserv we created. To some extent, though, we're still a group with common (albeit older) assumptions about what makes a site good. But when I ask workshop participants if they have a similar Web sewing circle, either on their campus or at nearby ones, very few respond that they do—or that they've even considered it.

The third reason the workshop testing method works is that you can take it back to campus. It may not be as rigorous as formal usability testing in isolated rooms with one-way mirrors and user eye-tracking sensors. But if you substitute my workshop full of strangers for your site's users, you can improve your site. Or you can meet with colleagues at other institutions to play the dumb user for each other. But to do so, you have to make sure the right people are playing the role of site owner. You need representatives from all parts of the Web development team: content owners/editors, designers, and programmers. If you miss any of the three legs of this Web development stool, you'll get a skewed impression of what you actually see users do, and more importantly, you won't have everyone available who can help prioritize and allocate resources to fix the problem.

WHY WE DON'T TEST

Despite the evident benefits of informal usability testing and the relative ease of implementing it, there's something about any Web development culture that makes it unlikely we will do it. One reason is the perception that it will be too time-consuming or expensive—especially if we believe each phase of the Web development process must be completed before another one begins.

Recently, I've been seeing Web designers adapt the traditional ADDIE model of instructional development (analysis, design, development, implementation, and evaluation) for Web development projects. With this model of Web design, most people would put user testing in the final "evaluation" stage, where they basically complete a site before sharing it with an early group of beta testers.

But what happens if the testers don't like it or, worse, can't use it to solve the problems you thought they had? You're forced to either disregard what they say and plow ahead—because you've invested too much time and effort building the site to change it now—or else stack the deck with users who think like you do (or who will say they do) to rubber stamp a design you're not going to change anyway. This is also why focus groups aren't the same as individual user tests: You don't want users to be influenced by you or other users. You want to see what they actually do on your site, not what they say they will do.

You need to know early on in your analysis what users' needs are to actually meet them. To know what their needs are, you might have to test users on your current site (perhaps by basing the test on site-traffic analysis or studying frequently used search engine terms) or you could use a competitor's site. As you begin to formulate ideas about design to meet user needs, you might want to create prototypes in low-fidelity wire frames using PowerPoint's "AutoShapes" tool or PhotoShop screen shots. You could even use 3 x 5 cards with possible link labels and headings and ask users to sort them in ways that make sense to them.

Critics will say all of this imagining and prototyping isn't the same as a fully functional, working Web site. And to some extent they're right. But if we're not able—or willing—to test our users' experience on low-cost (low-risk) prototypes during the early stages of our Web development process, it's almost a sure bet that we won't slow the train down once we're into full-scale development and launch.

A second reason we probably don't do usability testing (especially in education) is that users' needs blur the traditional line that has separated the communications and IT offices, which are usually responsible for an institution's external and internal Web presence, respectively. The Web development silos and cultures of our respective institutions allow us to specialize in certain areas, but also prevent us from cross-pollinating in others. We each tend to

in short

THE MAN, THE MYTH, THE LEGEND. No discussion about Web usability would be complete without mention of Jakob Nielsen. Just click on the bio link on his Web site, www.useit.com/alertbox, to see the many other titles he's been given. And once you're done with all the fanfare, be sure to find out why he's earned so many titles by browsing back issues of his *Alertbox* newsletter. Wide-ranging column topics include avoiding within-page links, blog usability, forms vs. applications, time budgets for usability sessions, check boxes vs. radio buttons, and more. Also be sure to check out the annual Top 10 Design Mistakes column, which in 2005 included "Flash" and "Content that's not written for the Web."

KNOW IT ALL. If you've never heard about Web usability or if you think about it every day, if you've already read the above article or are planning to, be sure to test your knowledge of basic Web usability principles by taking the quiz at www.humanfactors.com/downloads/usabilityquiz.asp. Answer the 10 questions and hit submit for your score and the correct answers, then check out the site's other features. Under "Just Fun," read through "10 Usability Tips" and play Mouse Maze, which demonstrates what users face when a site has inconsistent navigation. Also check out back issues of *UI Design* newsletter, articles and white papers, a Q-and-A archive, links to related resources, and more.

FROM PILLAR TO POST. In the Society for Technical Communication's Usability and User Experience Community you can be a source of support or receive it. More than 1,800 members from around the world who are just starting to incorporate usability techniques into their work and who focus primarily on it belong to this forum to share information and experiences on issues related to usability and user-centered design. The site, www.stcsig.org/usability/index.html, offers many resources, including the Usability Toolkit, the Usability Bookshelf, and monthly newsletter archives. It also features a comprehensive list of related topics, including "card sorting," which is described in the article above.

TEACH AN OLD WORD NEW TRICKS. If you're already tired of hearing *usability*, perhaps you're ready to start thinking about another word: *credibility*. In the online article "Beyond Web Usability: Web Credibility," author Trenton Moss says now that usable Web sites have started to become commonplace, we'll need more to separate us from our competitors. Web credibility, he posits, is about making sites come across as knowledgeable and trustworthy. Acknowledging that much of what he describes is common sense, he offers five guidelines for making a credible Web site. To read the article, go to www.webpronews.com/expertarticles/expertarticles/wpn-62-20051228BeyondWebUsabilityWebCredibility.html.

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The Dirty Dozen

Site tasks every campus should test annually

Although there might be more specific user tasks unique to your institution, there are a dozen common tasks we all should test.

If you focus on one task a month for a year—testing five to seven users and studying the results together as a Web team (content editors, designers, and programmers) for one hour each session—not only will your site improve, so will your user-centered Web design process. Start by testing the following tasks that users will most likely attempt on your site:

1. Arrange a site visit.
2. Apply to the institution.
3. Find a current student, faculty, or staff member.
4. Use the site's search engine.
5. Get and manage a campus computer account.
6. Find and register for classes.
7. Register a car and pay for parking.
8. Find and pay a tuition bill.
9. Find and register for an activity or event.
10. Find and subscribe to news or announcements.
11. Donate money or a gift-in-kind.
12. Use the site to request help or information.

If possible, record and edit the user tests to create a five- to 10-minute "highlight" video to share with your team members or with the site's other stakeholders who might have missed the Web team's analysis or who don't accept the lessons learned from them. There is nothing like watching someone struggle with your site to focus the mind on priorities and resources to fix the problem.

A promising, but somewhat pricey usability test recording solution is Morae by TechSmith (www.techsmith.com), which also makes the Camtasia screen-recording tool mentioned in the accompanying article. One difference between Morae and Camtasia is that Morae can integrate and sync two video sources: the user's actions on the computer and a Web cam looking at his or her face. The resulting "picture-in-picture" view of a user actually using your site creates a more compelling video than Camtasia's disembodied voice narrating cursor movements or clicks (but Camtasia isn't bad if you don't mind just listening to the user). Also, Morae better organizes and streamlines the process of creating a highlight video or viewing the test live from another room. This could be useful for the hard-to-schedule (or hard-to-convince) team member or site stakeholder. —JF

think the other group is responsible for the handoff of users from external sites (and needs) to internal ones. In this way, the virtual institution is no different from the real one. Just as integrated marketing attempts to align or reinforce an institution's brand with a customer's actual experience or perception of it, we need an integrated Web development process that delivers the same results across the institution's external and internal Web presence.

If the communications and IT offices can't understand and work with each other, however, no consistent advocate exists across a user's entire life cycle with an institution (from prospective student to alumnus and everything in between). The energy spent on recruitment could be wasted if we don't retain and serve users who have already made a commitment to us. And increasingly, our users' demands for online self-service require complex sites that take longer to build and are harder to maintain. The stakes are higher for our next-generation sites, and we can't afford to keep redesigning them year after year just to get them right. This is the worst (and most expensive) kind of iterative Web development, if only because we can't sustain or scale it.

Communications staff members, especially editors and writers, are ideally suited to lead an institution's Web usability efforts—but only if they do so across the user's entire life cycle and invite others to help analyze what they observe. Because of their intuitive audience awareness in writing an article or a press release, campus communicators have the ability to observe and translate the user experience to any site. They might not be able to develop technical solutions, but they can help guide programmers and designers by articulating user needs, by posing real problems that need solving, or by identifying new opportunities to explore.

Although I sympathize with communications and IT offices that don't understand each another, the consequence of perpetuating this divide can affect recruitment and retention of students, faculty, and staff. By getting everyone focused on user needs, Web usability testing has the potential to improve our sites as well as the process by which they are developed. ■

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