

# ASK THE EXPERT ... BEN DILLON

## Question: Why Is It Vital to Incorporate User Research During a Web Site Redesign?

Patients are always patients. Even when they're not. At least that's what Dean, an integrated health system headquartered in Madison, WI, discovered during its recent Web site redesign, which was launched in February ([www.DeanCare.com](http://www.DeanCare.com)).

Serving both Dean Clinic patients and Dean Health Plan members, the system's original Web site used audience-based navigation labeled "members" and "patients." Unfortunately, this nomenclature was confusing to consumers.

"When given the choice, consumers always thought of themselves as patients, never members," says Anne Bogen, digital services director at Dean Clinic, adding that was the case "even when they visited the site for insurance-related services."

Fortunately, Dean conducted user testing before launching its new Web site. After identifying the problem with the original navigation labels, Dean chose new labels, "medical services" and "insurance services," as seen in the screen shot on page 5.

### You are not your audience

As Bogen notes, it is easy to design Web sites that follow internal structures and terminology. That's why

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incorporating user feedback into the process is crucial to success.

When Avera, a health system headquartered in Sioux Falls, SD, began its Web site redesign, it wanted to move to a centralized, systemwide site. But Avera wasn't sure how that might affect the overall experience for site visitors.

"Sometimes, it felt like we were shooting in the dark," says Dalene Schramm, Avera webmaster. Avera's scope – 35 hospitals and 206 clinics – challenged Schramm and her team to balance internal organizational structures with navigation that is intuitive to site visitors. User research helped them see where site users were struggling.

"The only way to see if your site works is to watch how your site visitors navigate it," adds Chad Thoreson, Avera Web coordinator. "We're not our target audience."

### Understanding user research

User research falls broadly into two categories – formative and summative.

Because it helps you understand your site visitors, formative research begins early in the development process. You use formative research to answer questions about members of your audience – how they think and behave, why they make certain choices, and how your tools can help them. This research helps you create concepts and define problems.

Summative research, in contrast, tests and measures how users interact with the product. Summative research determines if the design is successful in meeting your goals and

measures users' satisfaction with the experience. Summative research is typically conducted throughout the redesign process and is often performed to test different solutions to the same problem.

Although it is ideal to collect feedback using both methods, healthcare organizations typically apply only summative research techniques. According to David Sturtz, product manager and user experience expert at my company, Geonetric, many healthcare organizations would benefit greatly from formative research. "It's more common to see organizations use summative methods before development to test their existing sites and determine what changes need to be made," he says. "They'll also often test a site after development to make sure it works like they expect."

### The tools of the research trade

As shown in the following table, there are many tools available for capturing user input. No single project will use all of them, but they can be applied strategically to each project to serve specific needs.

Formative Research Tools	Summative Research Tools
Ethnographic research	Usability studies: on-site or usability lab
User interviews	Surveys
Card sorting	Eye tracking/click tracking
Prototyping	Live session recording
Participatory design	Search log analysis
Mental modeling	Web analytics
Affinity diagrams	
Personas	

When Avera began redesigning its site, which is expected to launch

later this year, user interviews pointed to a new site structure. The current model had sites for the health system as well as for a number of regional hospitals and clinics, but this approach posed challenges for site visitors.

“Our goal is to provide the best user experience – we don’t want users getting lost. During our research process, we learned it was important for consumers to see the services offered throughout the health system,” says Schramm. “For example, patients looking for cancer services on one of our clinic sites couldn’t see the additional cancer services available at our other facilities, and we risked them seeking services outside Avera. With the new structure, our goal is to develop a site that helps consumers stay within Avera when receiving services.”

The earlier you can involve users in the design process the better. User interviews are easy to conduct and provide insight into how people interact with a site. This type of

formative research becomes even more powerful when coupled with summative tools such as user testing.

In its Web site redesign, Dean wanted to implement a site that effectively reflected the organization as an integrated health system without confusing site users. To get a better idea of how its diverse audiences actually use the site, Dean conducted user testing with health plan members, clinic patients, potential members and patients, providers, employers, and insurance agents. Using clickable wireframes, subjects were asked to perform tasks that evaluated how they navigated through the site and reacted to the content labels.

The results provided insight, but also evidence. “We had facts and data, which allowed us to make decisions based on the needs of our customers rather than our hunches,” says Bogen. “We referred to the evidence whenever we encountered pushback from internal stakeholders.”

The role that each tool plays in your research should be evaluated carefully. For example, many organizations think of focus groups as formative research, providing deep insights into consumer motivations. Not so, argues Sturtz. “Focus groups don’t necessarily get at the information that user researchers are interested in. We want to know what people are actually doing and why,” he says.

Sturtz and his Geonetric team employed a number of different research tools when redesigning a physician directory module. Although they all proved valuable, one tool was particularly eye-opening.

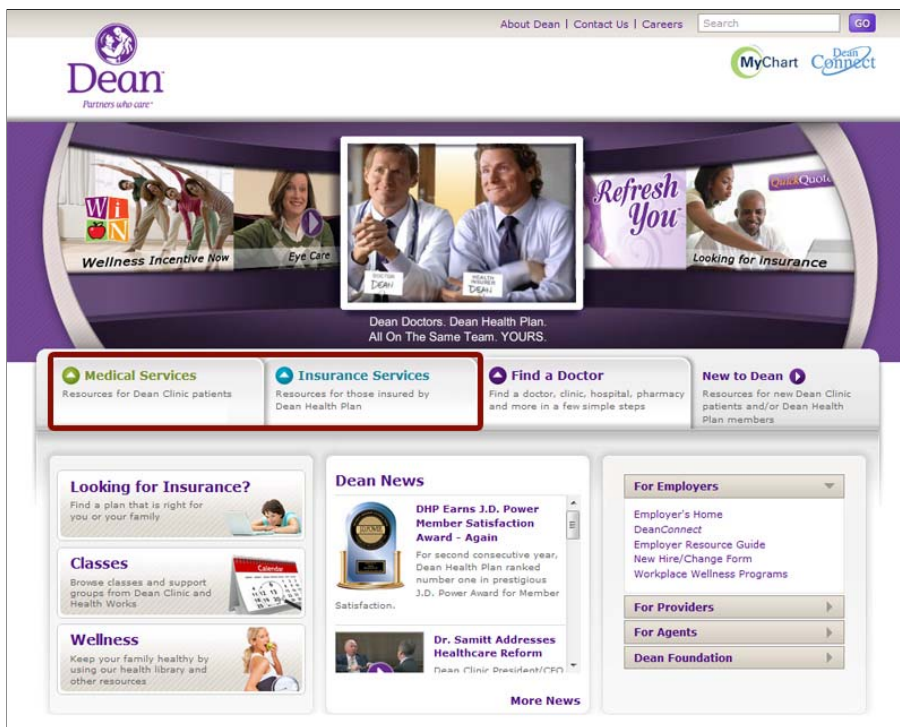
“During user usability studies you can see how participants interact with functionality,” says Sturtz. “But the fact you’re watching them can change the way they work.”

To overcome this problem, Sturtz’s team recorded live, online user sessions using click-tracking software. Doing so allowed the team to analyze how visitors interacted with the physician directory and pinpoint areas where subjects were struggling.

“The recordings revealed just how pervasive some of the problems were,” Sturtz recalls. “Combining the information gleaned from the recordings with the deeper questioning during the usability studies helped us make the feature more user-friendly.”

Sturtz’s team applied the findings by reducing the number of search criteria and adding functionality to compensate for common user challenges, such as misspellings. The team also added photos and videos to the physician information because users tended to spend more time on detailed profiles.

*continued, page 6*



“What’s great about incorporating user feedback during the design phase is that design is iterative,” says Sturtz. “As you create artifacts, you can validate them along the way.”

### Where to begin

Most organizations that plan to incorporate user feedback already have an existing site to use. Having a site provides opportunities for analysis that aren’t present if you start from scratch.

The best way to begin the process is to ask yourself five questions:

- Who are our visitors?
- What do they want to do?
- How do they go about it?
- Are they able to do it?
- What gets in the way?

Once you identify your problem areas, you can apply the appropriate research tools to fill in the gaps. For example, to identify your visitors, you may conduct user interviews and develop personas. To pinpoint what visitors want to do on your site, you may create mental models. To find out how well your visitors accomplish tasks, you may conduct on-site user testing or lab sessions, search log analysis, and click-tracking research.

Remember, the objective of user research in redesigns is to solve big problems both for site visitors and for the organization. In the process, your overall consumer experience will improve and your Web site will become a more valuable tool for your organization.

It is important to make sure you don’t fall victim to the most common pitfall: only testing the home page or visual design. These areas are important, but there are many other items that can be equally, if not more, significant. Instead of just focusing testing on branding issues, Sturtz encourages hospitals to concentrate on the tasks that drive business value.

“Although it’s important to see how users react to aesthetic aspects of the design and the home page, it’s more important to see how users perform key functions and tasks that drive value for the hospital,” he says. “If it’s your organization’s goal to increase volume to your heart service line, test whether users can find a cardiologist and make an appointment.” **eH**

## The Impact of Research on Patient Portal Design

When David Sturtz, Geonetric’s product manager, and his team began redesigning a preregistration form and other aspects of a patient portal, they used a variety of different research methods: mental modeling, user interviews, search log and page-view analyses, and usability lab testing.

“We began by conducting consumer interviews to discover how patients use portals and developed mental models based on the findings,” says Sturtz. “In fact, we designed most of our portal functionality based on what we learned. For example, we discovered one person typically manages the healthcare needs for the entire family, including parents. So we added family profile management capabilities into our software.”

It was important to Sturtz that the portal’s preregistration form be tested in a lab with an evaluator and through recordings and analytics. “How participants act during an

evaluation isn’t always how they’ll act in real life,” notes Sturtz. “They may try harder to complete a task, when in reality they would have given up. That’s why it’s important to utilize more than one research tool.”

Through the analysis, Sturtz learned that users don’t want to give too much information in the beginning. This finding supported a guiding design principle of gradually engaging consumers. “We found that if we requested information in small steps and at appropriate times, user adoption increased,” says Sturtz.

“We know gradual engagement is a good usability practice, and the research ensured that we had applied it correctly,” he notes. “It’s great to listen to usability gurus, but you still need to do some of your own research.”

Sturtz and his team used the findings to design a portal that allows visitors

to complete many transactions by submitting minimal information – just a user name, e-mail address, and password. Visitors who choose to complete more complicated transactions, such as a preregistration form, are allowed to save information and return to the site when it’s convenient.

“Our research pointed out how to improve portal functionality and make [the site] more valuable for both the hospital and its patients,” says Sturtz. **eH**

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