

IMPROVING THE PROVIDER DIRECTORY: A STEP-BY-STEP REVIEW OF HOW TO APPROACH A FUNCTIONALITY REDESIGN

Background

Continuously building a quality Web site requires more than just worrying about which new capabilities to add. You also must regularly examine the functionality you have in place and look for opportunities for improvements. At Geonetric, we are constantly analyzing the value our solutions deliver to clients in order to improve our products and deployments.

An excellent example of our continuous improvement process is our recent Provider Directory upgrade. While our Provider Directory was already a strong, functionally-rich tool, we decided to examine how well it addressed the evolving needs of end-users. And we uncovered a number of areas to improve.

Process

The Provider Directory is a critical part of a hospital's Web sites. The goal of the directory is to enable site visitors to easily search for physicians, research options, and find contact information or make appointments online.

We conducted an online research study to discover ways we could make our Provider Directory more intuitive and engaging. We used a four-step process that measured how visitors use our directory and helped uncover any obstacles they encountered.

Step One: Learn about the audience and what tasks they are trying to accomplish

Our first need was to learn about the users of our Provider Directory and their specific goals. To gain the most insightful understanding, we broke the user groups into segments, or user personas, either by usage scenarios or demographics. The two primary tools we used to understand what users were trying to accomplish were:

- Online survey: Some information can only be captured by asking users directly. A short online survey of current users provides excellent insight into their satisfaction with your site.
- Search log analysis: Analyzing the terms visitors use to search and the fields they used when performing search helps you understand their query approach and often why they are failing at finding information.

The results of this step provided information about the users of our Web site and how they approach finding information on our site.

Step Two: Determine how visitors approach tasks using the current design and identify barriers to task completion

Our next step was more detailed and involved watching how users interact with our functionality and user interface design. The tools we used to accomplish this were:

- Analytics and path analysis: Analytics provides information on the volume of queries as well as insights on how the search fits into user's site visit. Did they begin on this page? If not, how did they get here? How did they iterate through the search and results? Where did they go from this search? Your Web analytic reports can answer all of these questions.
- Session recording: Recording and replaying sessions of actual users attempting to perform tasks provides the best possible representation of users without the risk of selection bias in the subject selection process. But with this approach, you lose some insights that can be gathered through lab-based testing, such as users' comments.

- Click analysis: Creating visual maps of where visitors are clicking on the page can be particularly useful when multiple links on the page lead to the same place or when elements of the visual design may be causing confusion.
- User experience (UX) lab testing: Running controlled experiments with subjects in a user experience laboratory environment allows you to test specific scenarios and collect information from the subjects about their impressions of their online experience.

The results of this analysis told us a great deal about the sophistication of our user audience, identified what components were working well and, most importantly, what was preventing users from completing their tasks.

Step Three: Develop recommendations

Based on the results of our analysis, we developed a broad set of recommendations, then evaluated and prioritized them. Our recommendations addressed most aspects of the online experience related to the Provider Directory, including functionality, user interface approach, design, layout, content, context and search results.

Step Four: Validate the new design prior to deployment

As new design elements were developed, we validated them with users to ensure our new approach served the intended need and improved the overall user experience. Once completed, we finalized and tested the Provider Directory through user experience lab testing before beginning deployments with clients. For these tests, subjects with representative demographics and skills of actual site users were brought into the lab and asked to complete tasks on the new feature design. Skilled facilitators watched and recorded both the user and the online session for later assessment and gathered the subjects' feelings and impressions as they completed the designated tasks.

Results

The research uncovered a number of areas in our Provider Directory that we targeted for improvement. Here are some of the improvements we made based on our research:

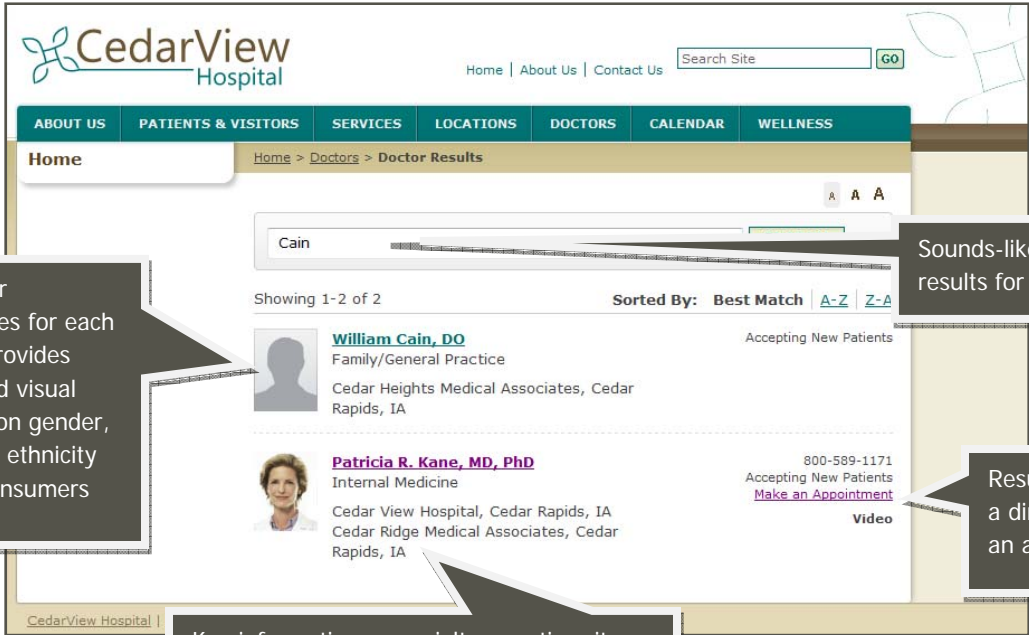
The image shows a screenshot of the CedarView Hospital website's 'Find a Doctor' page. The page features a navigation menu with categories like 'ABOUT US', 'PATIENTS & VISITORS', 'SERVICES', 'LOCATIONS', 'DOCTORS', 'CALENDAR', and 'WELLNESS'. Below the navigation, there is a search bar and a list of medical specialties with corresponding doctor counts. Callout boxes provide context for design changes: one points to a search box at the top right, another to a search box on the page, a third to the specialty list, and a fourth to the search results.

Callout 1 (Top Right): Universal search box reduces confusion and mistakes in user queries.

Callout 2 (Left): User directions provided in the search box makes them more likely to be found and places the search box higher on the page.

Callout 3 (Bottom Left): Specialties organized into consumer-friendly groupings with the results listed on the main page.

Callout 4 (Bottom Right): Browse-style presentation by specialty or location only includes items in use to prevent "zero result" options.



Photos or silhouettes for each doctor provides quick and visual insights on gender, age, and ethnicity which consumers want.

Sounds-like search capability returns results for both Cain and Kane.

Results page includes a direct link to make an appointment.

Key information – specialty, practice sites, phone number, new patient acceptance, etc. – is listed on the results page making it easier for users to find the information they seek.

CedarView Hospital Home | About Us | Contact Us Search Site GO

ABOUT US PATIENTS & VISITORS SERVICES LOCATIONS DOCTORS CALENDAR WELLNESS

Home Home > Doctors > Doctor Details

[Return to Results](#)

Patricia R. Kane, MD, PhD
 Director of Internal Medicine
 Assoc. Director, Internal Medicine Residency Program

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 To schedule an appointment with Patricia R. Kane please call **800-589-1171** or use our [online form](#).
 Accepting new patients. A referral is required.

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Profile **Office Information** **Media**

Year began practicing: **1992**
 Year joined staff: **2003**
 Year began practicing in specialty: **1996**


Specialties

- Internal Medicine

Areas of Interest
 Gastroenterology, gastroesophageal reflux disease (GERD), heartburn, indigestion.

Priority information – name, title, specialty, video link, call to action, etc. – is placed at the top of the page for quick viewing

Detailed information is placed in tabs for easy access.



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Office information tab includes integration with Google Maps

Locations

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 Cedar Rapids, IA 52404
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 Alternate: 800-589-1171
 Fax: 319-221-1450
[Locate on Map](#)

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[Locate on Map](#)



Being the best

As you can see, the evidence-based design approach provided great insights into user needs, and it helped us make a number of impressive improvements to our Provider Directory.

This latest Provider Directly redesign provides a good reminder to all developers. When you're building Web applications, it's easy to forget how everyday users approach tasks. It's important to remove yourself, and the familiarity you have with certain functionality, and base your designs on the needs of actual users. It's just one of the ways Geonetric ensures we continue to build the best online solutions for our clients.