



Blink Interactive, Inc.

User Experience Research & Design

Improving The User Experience of Healthcare Provider Websites **White Paper**

July 16, 2012

Abstract

For many healthcare providers, the institution's website is an increasingly important aspect of patient care. Consequently, a user-friendly website is critical to meeting patient needs. We have worked with healthcare providers for several years to understand their users and design user-friendly solutions that address many common challenges associated with healthcare provider websites. The challenges these sites face are a direct result from attempts to serve a diverse set of users and address a range of goals. Frequently, these challenges result in unnecessary content and navigation that frustrate users. We recommend prioritizing the site's goals, content, and audiences. Such an approach results in a website that better serves both patients and the institution.

What you will learn from this white paper:

- Why health provider websites are becoming an important part of patient care.
- What constitutes an evidence-driven approach to creating user-friendly health provider websites.
- Common usability challenges across different health provider websites.

Problem

Online health resources are an increasingly important part of patient care. A recent survey found that 59% of all adults in the U.S. have looked online for information about health topics¹. There is also a broad range of health resources available online to consumers and professionals². Consumers have access to information provided by healthcare providers including hospital and medical institutions as well specialty care such as Moffitt Cancer Center. There are sites devoted to health guidance including symptoms and treatment, such as WebMD. Sites related to healthcare and medicine include scientific research resources such as the Allen institute for Brain Science, medical professional organizations including the American Nurses Association, and insurance providers.

For patients and their families, these sites present information from authoritative sources and may also allow them direct access to their medical records and physicians. In this report, we focus on healthcare provider websites that distribute important information about hospitals and other health institutions including employment opportunities, news highlights, and research findings. Visitors to these sites are likely to make appointments, research providers, and inquire about medical services.

User Experience (UX) is a key aspect of building a website that serves patients well. By ensuring that health information resources are discoverable and make sense to everyday users, health providers can help patients better understand medical conditions and prepare for treatments. However, healthcare providers face difficult challenges in delivering compelling user experiences on their websites. Provider websites target a variety of different types of users, from patients and concerned family members to physicians and other hospital staff. Each of these user groups has a different set of expectations for using the site. If not addressed correctly, these challenges make creating user-friendly sites with appropriate navigation, labeling, and content more difficult, resulting in frustrated patients and underutilized resources. Ultimately, poor UX may result in lost opportunities for the provider. For instance, patients may choose to make appointments over the phone rather than online resulting in increased staff hours or select a different provider all together.

A variety of users also results in different perspectives that influence how a site's content is interpreted. Different users value different types of resources and have unique expectations for what features the site should have (see the figure below). For example, both physicians and patients have unique ways of understanding conditions and treatments. For physicians, conditions are diagnosed, while for patients, conditions are experienced at the personal level. This subtle difference can impact how users go about seeking information and understanding resources. Offering patients information written for physicians may appear helpful or at the very least benign, however it has the potential to cause confusion and frustration. It is the digital equivalent of providing patients access to a physician's reference library when more general set of resources may be more appropriate.

Different users have a range of expectations, needs, and values.



Healthcare providers use websites to accomplish varying goals.

- Providing patient record access
- Making appointments
- Marketing/institution profile
- Educating patients
- Educating practitioners



As the previous figure shows, provider websites also attempt to address a variety of goals and use scenarios that may conflict with each other and with users' expectations for how to use the site. For example, the same website may be designed to provide patients with health information and practitioners with education resources. As a result, a section titled "education" can be interpreted in multiple ways. Patients may see it as place to understand their conditions, while practitioners will use it as a means to seek out professional development information. Another set of conflicting goals can exist in a site's attempt to serve as a vehicle to promote or highlight specific aspects of the institution while at the same time provide logistical information for patients. While featured content and news articles may be important to the institution, they are of little help and may distract from patients seeking to find appointment information or directions to a clinic.

Understanding how to balance conflicting goals is an important part of building a better user experience. Achieving these goals in such a way that they lead to productive interactions with the site can help health care providers reach their patients and staff. Some healthcare providers seek to understand the users of their websites and to design solutions for meeting user needs and expectations; many of the drivers for user research are:

- Identifying each user groups' specific needs and preferences
- Understanding users' first impressions of the website
- Determining how easy it is for users to navigate the site
- Determining how well users understand the site's terminology
- Understanding how easy it is for users to complete key tasks on the site

Blink's approach has been to focus on providing evidence-driven design by testing current and new designs with users of healthcare provider websites to identify ways to improve their user experience. What follows is a summary of our approach to testing and a description of common findings across health websites.

Approach

To address the challenge of creating user-friendly healthcare provider websites, we have applied a range of research approaches to address clients' specific questions. These approaches include testing different aspects of each site at varying stages of the design process:

- **Baseline testing** where users are presented with a set of tasks to complete on an existing site in order to understand how well the site currently performs; the insights gained are typically used to redesign all or part of a site.
- **Card sorting** in which participants group together content in ways that are logical to them. This allows researchers to gather data that helps designers organize site content and determine what terminology best resonates with user.
- **Wireframe and prototype testing** are used to gather feedback on a proposed site design prior to implementation.
- **A/B testing** allows researchers to compare two versions of the same site in order to determine what aspects of each have the fewest errors and perform best for users.
- **Competitive testing** helps gather insights into missed opportunities and to understand how users perceive the current site in relation to similar websites.

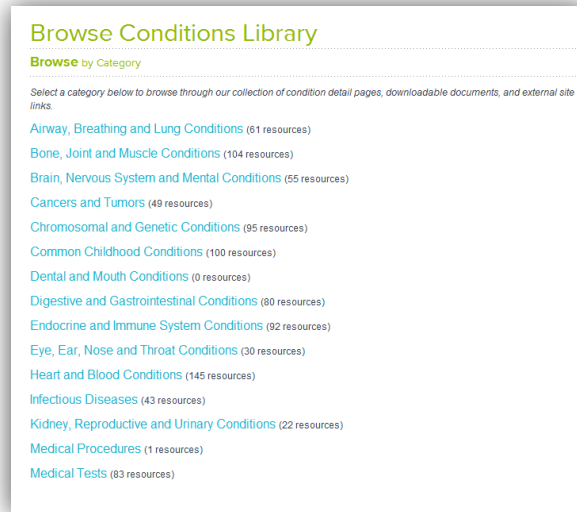
With each testing approach we gather data that allows an in depth analysis of how users perceive the site and the usability issues that are observed. For example, **think aloud protocols**, in which participants describe their actions while completing specific tasks on the site, are used to uncover the thought processes users engage in when they encounter usability issues. In addition **user interviews**, in which researchers ask participants about their experience using similar websites, help researchers better understand the needs and expectations of users.

Participants are frequently recruited from different pools to match common user types. Studies can include a mix of patients, families, donors, medical students, physicians and researchers. Care is taken to balance the study population in order to minimize the influence that one set of study participants has over the results. At the same time, a session protocol is designed for each unique type of site user.

Insights

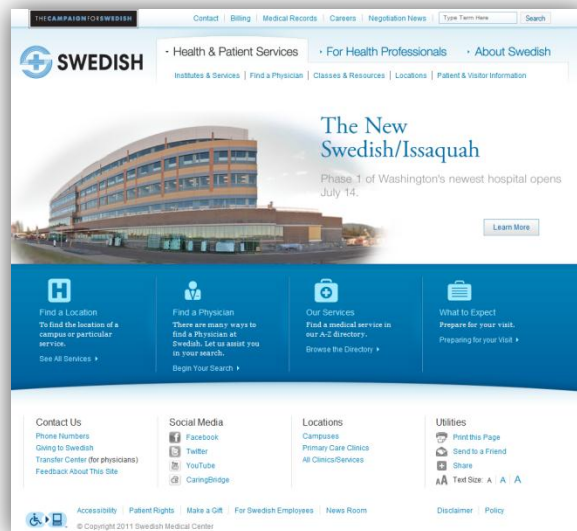
Our testing reveals a number of common issues across health provider websites. Overall, we find that sites with too much information are difficult for non-medical professionals to read and digest. "Knowing the right words to use," as one participant framed it, is a general problem for health provider sites; mixing lay and expert terminology is not an effective solution. We recommend focusing on patient needs and using terminology that is easy for them to understand (see the figure below).

Notable Solution:
Seattle Children’s Hospital makes use of accessible terminology for medical information.



Patients turn to healthcare provider websites for information about specific medical conditions, to prepare for clinic appointments, and to learn about physicians’ clinical interests and research publications. Making an appointment is a high priority, yet it is often a difficult task to complete. Clinic and appointment information can be buried deep into the site behind less relevant information such as recent physician accolades or other institutional achievements. Blink recommends helping users complete tasks by providing links that elicit specific actions such as finding a location or a physician (see the figure below); these links are often referred to as “calls-to-action.”

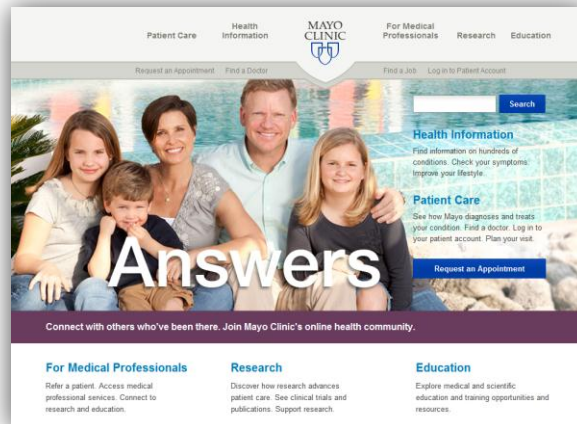
Notable Solution:
Swedish Medical Center’s website has highly visible calls-to-action for patients.



In our research, patients generally hold health providers in high esteem yet comment that website quality does not match the reputation of the hospitals. Patients notice when sites are cluttered and finding information is difficult. Featured content, which is often intended to promote an institution's strengths, can be distracting and makes finding specific information more difficult. Blink recommends creating a strong visual hierarchy that helps users find the most important links easily. The entire site, as well as each page, should prioritize the most important information and eliminate unnecessary content. Balancing effective navigation and branding is also important for making a usable site and creating a positive image of the institution (see the figure below).

Notable Solution:

The Mayo Clinic's Website has clearly defined categories in the top-level navigation and contains a small number of homepage items. The site also balances emotional appeal and branding with clear and effective navigation.



Without a focused approach to site design, items end up being placed into menu structures that do little to make finding information easier. One site Blink tested had as many as seven different menu structures. This complexity made it difficult for users to find important information about specific conditions and treatment options. Overuse of menu structures reminds us that whenever you add something to a site it pulls attention away from something else. In this case, the additional content and navigation decreased focus and clarity.

Key Take-aways

Prioritizing a site's goals, content, navigation, and audiences:

- Reduces unnecessary navigational elements such as menus and links
- Helps patients find appointment, condition, and treatment information
- Simplifies terminology for a lay audience

Future Trends

Consumers are increasingly using information online to choose a healthcare provider. In the coming years we expect this trend to grow along with the expansion of a few emerging trends.

- **Patient and provider online communication:** Over the next several years we anticipate patients will come to expect the option to view their records and communicate with their providers online, an option that many healthcare providers already make available. Building such systems in a way that they are easy for both patients and providers to use will reduce the overall cost of implementation and lead to greater adoption.

- **Cost estimators:** As healthcare costs increase and insurance plans continue trending into the high-deductible range, patients are expected to become increasingly interested in the overall cost of their care. Online tools for estimating the cost of medical services from different providers may be useful for helping patients navigate the complex world of medical billing.
- **Provider reviews and ratings by patients:** As patients increasingly look online for healthcare providers, understanding the experiences of other patients will be important. Tools that allow patients to rate and give their opinions of providers are helpful for finding the right service.

Conclusions

Healthcare provider websites are an important part of the overall healthcare landscape; designing efficient and user-friendly sites can help patients better communicate with their providers. We have found that these sites tend to rely on difficult-to-understand language, too many navigation options, and an over-abundance of information. Over the last six years Blink has helped health providers improve the overall user experience of their websites by focusing on goals, content, and audiences to better serve their patients and medical professionals.

¹ Susannah Fox (2011): The Social Life of Health Information, 2011, <http://pewinternet.org/Reports/2011/Social-Life-of-Health-Info/Summary-of-Findings.aspx#>

² Wayne Usher and James Skinner (2010): Categorizing health websites: E-knowledge, e-business and e-professional, <http://hej.sagepub.com/content/early/2010/08/09/0017896910376125.abstract>

About the author and Blink:

Tom Satwicz is a User Researcher at [Blink](#) with over 10 years of experience researching interaction and technology use in a variety of fields including healthcare, education, entertainment, and business. In 2006 he graduated from the Ph.D. program in [Learning Sciences](#) at the University of Washington. After graduation he worked as an Assistant Professor in the Learning and Performance Support Laboratory at the University of Georgia. Currently, he serves as a Part-time Lecturer in the [Museology](#) (museum studies) Graduate Program at the University of Washington where he teaches courses on learning in museums and research methods.

Blink is a leader in user experience research and design. Since 2000, Blink has helped companies who depend on technology take the guesswork out of delivering great user experiences. Our evidence-driven design approach helps our clients understand their users, design great experiences, and validate their design decisions to reduce risk.

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