

7-18-2014

# A User-Centered Approach to Addressing Issues of Discoverability and Access

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## Published In

The Serials Librarian, 67:1, 48-51, 2014 available online at: <http://www.tandfonline.com/doi/abs/10.1080/0361526X.2014.899290>

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## A User-Centered Approach to Addressing Issues of Discoverability and Access

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eResource access problems challenge electronic resources librarians and frustrate users. Challenges of using library systems can include information overload, links that do not work properly, incorrect metadata, and questionable relevance to search results. Nate Hosburgh, Electronic Resources Librarian at Montana State University, gave a presentation titled “A User-Centered Approach to Addressing Issues of Discoverability and Access” at the Mississippi State University Libraries’ eResource & Emerging Technologies Summit held in the Mitchell Memorial Library on August 2, 2013. Hosburgh spoke of lessons he and his team learned about troubleshooting eResources and his team’s approach to issues of discoverability and access.

**KEYWORDS** electronic resources, troubleshooting, access to information

Nate Hosburgh, Electronic Resources Librarian at Montana State University in Bozeman, presented at the Mississippi State University Libraries’ annual LEETS conference on Friday, August 2, 2013. His topic was a synopsis of what he and his team have learned about troubleshooting eResources access problems. Hosburgh’s presentation included relevant graphics and anecdotes to help the audience think in terms of the human needs of our users and translate those needs into an approach to addressing issues of discoverability and access. Library systems are more complicated than the e-commerce sites users may be accustomed to and it is easy for users to become frustrated by their own inexperience or by errors encountered in the system.

Unique challenges of library systems include information overload, links that do not work properly, incorrect metadata, and questionable relevance of results. Considering all of the populations served by a university library, there is also a broad range of credentials, devices, and systems to be accommodated.

Hosburgh stated that being experts in our own systems is just the starting point in having users take advantage of what we can provide for them. He spoke on knowing our users both as profiles of individuals and groups. What are their technical capabilities, needs, and goals? Librarians need to consider both psychological and philosophical aspects in thinking through all of the steps to getting eResources into the hands of our users. It is necessary to listen to both internal and external users, as differing patterns of use means different perspectives. Internal users include library departments such as reference, interlibrary loan, digital and Web services, and collection development. External users may consist of university faculty and staff, undergraduate and graduate students, or less typical users such as walk-ins, alumni, students not currently enrolled, and researchers working on special projects.

Information gathering and tracking are the crucial first steps to seeing what is really going on with access to eResources. A starting point would be to put a “report a problem” link in as many logical places as possible on library Web pages, so that library staff can be made aware of the issue and usefully follow up with the user. Hosburgh noted that internal users are typically the main problem reporters, while external users are a smaller proportion. Holding focus groups or conducting usability studies provides opportunities to gather data from external users as to where they would look for a link if they were having a problem. User-friendly language in error messages such as giving specific suggestions of things to try and links to click or numbers to call will make “report a problem” processes more inviting to users and thus more effective. Other than page links, problems can be captured via e-mail, an internal error log, ticket system, or by using Ask-A-Librarian. A team approach to responding to the tickets can be helpful to cover vacations and various categories of problems.

Some programs on the market to consider include JIRA, HelpSpot, Footprints, and Request Tracker. These kinds of solutions include error log archives that allow patterns to become clearer over time. Some problems that initially appear to be isolated point toward systematic problems upon deeper investigation. Each program has unique features; for example, Footprints tracks actual time worked on a task as well as overall time the issue has been open. In addition to monitoring trends via systems archives and journals, Hosburgh’s team also reviews LibQual feedback to serve as a broader measure of user satisfaction related to provision of eResources.

Troubleshooting is made easier by having a methodology that starts with consistent data gathering. It begins with collecting specific and detailed information such as user name, status, e-mail, and telephone number for communicating with the user. Then it is important to determine how the eResource is being accessed (on/off campus, Internet Protocol [IP]/proxy/Virtual Private Networks [VPN]). Track Uniform Resource Locators (URL)/IP/VPN stability before looking at library systems. The library information technology department may be able to provide an error monitoring tool to automatically capture IP addresses and browsers. Screen shots are often very helpful in troubleshooting, so collect those if possible. Determine what the user has done so far in order to save everyone time and avoid repetitious troubleshooting. Some users are much more tech-savvy than others and may have already attempted to resolve the problem.

The overall troubleshooting methodology should be based on a philosophy of dealing with the problem effectively without passing the user along to other team members if possible. Approach the troubleshooting process with equanimity (think cool, calm, and collected, with a “can-do” attitude). Be careful not to assume or project the assumption that the problem is with the user. Do not jump to conclusions—operator error can and does occur but usually the problem does not reside with the user. See if you can walk through the problem in real-time and reproduce the error to determine the point at which the problem occurs. Is it at the link resolver screen, Web scale discovery platform, database list, journal list, or catalog?

When enough data has been collected, start to develop an internal troubleshooting guide to provide consistent and efficient handling of problems. Find the most common errors by checking the log of the past year. Review them systematically and develop a troubleshooting guide using a team approach, network, and look at each problem from different perspectives. Your troubleshooting guide may evolve into a tiered approach, with issues filtered by specific resource (database, e-Book, etc.) and level of difficulty.

Typical problems include those related to vendors, user privileges, and browsers. Problems with vendors may occur when a library is not registered for access, IP ranges drop or are incorrect, or there may be journal list discrepancies—for instance, e-access for a title may have been unintentionally omitted in the process of migrating from print to electronic access in an earlier library project. User privilege issues may include users who are off-campus or not proxied, VPN split-tunneling, and IP addresses blocked by the vendor due to excessive downloading. Other system failures that might occur include incorrect electronic resource management (ERM) systems holdings information, bad URLs, linking to Open Access journals, and OpenURL

issues. Occasionally, external sites (National Aeronautics and Space Administration [NASA], Google Scholar, PubMed) may also go down, interrupting access.

In an effort to gauge success, we could consider soliciting user feedback about the troubleshooting process. Consider asking such questions as whether or not the user perceived the turnaround time as satisfactory as well as more subjective measures, such as how well the question was answered and whether or not the user feels that they got a definitive answer that works and not just a temporary patch. Hosburgh asked the audience to consider what lengths we go to in assisting users. Are we being more or less helpful by encouraging user self-sufficiency? Which tools should we embrace: Google, LibGuides, custom troubleshooting guides for users, flowcharts? How will internal and external users find and use such documentation? Is the end user going to use this? Or is it too complex? He discussed the capability to make step-by-step help videos via tools like Screencast-o-matic or Jing and make them available to users.

Hosburgh summed up with the essentials: understand and value users, determine reporting/tracking mechanisms that make sense for your library, develop an internal troubleshooting guide, take advantage of all of your human resources to problem-solve, evaluate performance, and strive to achieve the best service for users. He then opened the floor for questions and comments. The first comment was that one of the top challenges is trying to reproduce off-campus and browser issues. Suggestions included installing a separate data line to test outside the network and to purchase a cross-Operating System [OS]/cross browser testing tool. Also mentioned was a user agent switcher plugin within Firefox Web developer tools, to render library pages on numerous phone screens and with various browsers.