Evidence Based Library and Information Practice

Evidence Summary

Library Catalogue Users Are Influenced by Trends in Web Searching Search Strategies

A review of:
Novotny, Eric. "I Don't Think I Click: A Protocol Analysis Study of Use of a Library Online
   Catalog in the Internet Age." College & Research Libraries, 65.6 (Nov. 2004): 525-37.

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Abstract

Objective – To explore how Web-savvy users think about and search an online catalogue.

Design – Protocol analysis study.

Setting – Academic library (Pennsylvania State University Libraries).

Subjects – Eighteen users (17 students, 1 faculty member) of an online public access catalog, divided into two groups of nine first-time and nine experienced users.

Method – The study team developed five tasks that represented a range of activities commonly performed by library users, such as searching for a specific item, identifying a library location, and requesting a copy. Seventeen students and one faculty member, divided evenly between novice and experienced searchers, were recruited to "think aloud" through the performance of the tasks. Data were gathered through audio recordings, screen capture software, and investigator notes. The time taken for each task was recorded, and investigators rated task completion as "successful," "partially successful," "fail," or "search aborted." After the searching session, participants were interviewed to clarify their actions and provide further commentary on the catalogue search.

Main results – Participants in both test groups were relatively unsophisticated subject searchers. They made minimal use of Boolean operators, and tended not to repair failed searches by rethinking the search vocabulary and using synonyms. Participants did not have a strong understanding of library catalogue contents

or structure and showed little curiosity in developing an understanding of how to utilize the catalogue.

Novice users were impatient both in choosing search options and in evaluating their search results. They assumed search results were sorted by relevance, and thus would not typically browse past the initial screen. They quickly followed links, fearlessly tried different searches and options, and rapidly abandoned false trails.

Experienced users were more effective and efficient searchers than novice users. They used more specific keyword terms and were more persistent to review their search options and results. Through their prior experience, they knew how to interpret call numbers, branch library location codes, and library terminology such as 'periodicals'.

Participants expected the catalogue to rank results based on relevancy like an Internet search engine. While most were observed to understand intuitively the concept of broadening or narrowing a search, a 'significant minority' added a term to an already too-narrow search to improve their search results.

When interviewed, participants suggested several ways to improve the catalog search query, such as adding summaries and contents, ranking results by relevance and degree of exact match to search terms, including an Amazon-like "find more like this" feature, and providing context-sensitive and interactive online help, especially at the point when a search has produced too many or too few hits.

Conclusions – The study concluded that library catalogue users are heavily influenced by trends in Web searching. No matter what type of search task called for, the participants tended to expect a simple

keyword search to lead to optimal results presented in relevancy-ranked order.

Because users do not generally know or care about the structure of a bibliographic record, and many have little concept of what a library catalogue is for or what it contains, Novotny suggests that user instruction needs to address these basics. He also suggests that library professionals and library system vendors must work together to address the clear evidence that library catalogues are failing their users.

Commentary

This was a thorough and generally methodologically sound study. However, given that the study objective was to assess how a group of "Web-savvy generation" users use an online catalogue, it is not clear enough that the sample, especially the 'experienced' group, were all of that generation and indeed Web-savvy.

One regrettable shortcoming in data collection was that user satisfaction ratings were not collected. There are also a few shortcomings in data reporting. For example, no table is provided to show success rates by task and type of user, although these data were captured. Thus, the reader cannot confirm the second part of the assertion that "On average, [experienced users] spent less time per task and were more likely to complete tasks successfully" (530). In fact, more supporting data in the discussion would have been helpful in the discussion. For example, the discussion states that users were "far more likely to try another search than to examine the reasons why the initial search failed" (529). But the number of failed searches is not reported, nor is the percentage of times that participants tried new searches instead of asking themselves why a search failed.

Although the study was intended to suggest interface changes for the Pennsylvania State Libraries catalogue, it is unclear whether any changes were made as a result of the study. By describing changes the author personally made to his instruction sessions, he seems to give more credence to adjusting user education than to revising local interface choices, though both are no doubt merited.

Ultimately, the author lands—correctly in my opinion—on the fact that local tweaks, whether to interface or instruction, are not the whole answer. We cannot persist in thinking that users will come to understand our way of doing things if only we educate them enough.

The evidence suggests that the long-standing and well-documented failures of the online library catalogue are now simply more acute, given the pervasiveness of alternate search models and interfaces provided by Internet search tools.

The library profession needs to acknowledge how users actually search, then work proactively with vendors to build systems that accommodate these actual user behaviors. That likely means that we need to build toward proven, analogous search interfaces, such as Amazon.com; to introduce more full-text data into our catalogues; to put controlled vocabularies to more effective use; to support user participation features; and to make greater use of data mining.