A Study on Search Effectiveness

Charlotte Roh, MLIS 2013
Reference, Research, and Scholarly Services at the Main Library and the Graduate School of Library and Information Science, University of Illinois at Urbana-Champaign

Introduction
Understanding how users search and conduct research is a fundamental part of interface and interaction design. It is critical to identify the factors that can affect the research process in order to develop improvements to search interfaces, the search process, and training activities that can help users conduct research more effectively and efficiently.

In the past, library user studies of researchers in the sciences, technology, engineering, and mathematics (STEM) have concentrated on academic subjects. User studies of researchers in industry have been through third-party data such as citation links, rather than direct observation and interviews. In a grant-based partnership between the Main Library at the University of Illinois at Urbana-Champaign and a large international chemical company, both quantitative and qualitative methods were used in order to look at the habits of industry researchers in the STEM fields.

The outcome of this research includes findings on the habits of STEM industry researchers as well as recommendations from the University of Illinois at Urbana-Champaign. The academic perspective is explored in order to provide industry libraries the benefits of cutting-edge educational techniques and university library approaches.

Learning Goals

**UIUC Library**
- To understand the needs and how STEM researchers use within industry
- To obtain practical tips as to how libraries can teach necessary skills

**Corporate Information Services**
- To improve upon the search interfaces and tools utilized
- To improve upon the dissemination of information to end users
- To train employees on the research tools to meet their information needs

Why is this important?
There are many academic studies of academic researchers. There are many corporate studies of online customer/user behavior. There are no other academic studies of corporate researchers on this scale, using these methods.

- Partnership between a corporate information center and an academic library
- Academic survey of industry researchers on this scale
- Ethnographic study of industry researcher habits
- Academic study using remote observation tools on this scale

Methods and Tools

**SurveyMonkey**
- Demographics
- Knowledge of research tools
- User preferences

**Adobe Connect, Skype, Skype Recorder**
- Interviews
- Observations
- Audio and video recordings
- Gauging knowledge and skills

**Alternative Tools**
- Internal IT click tracking
- Loop11
- Lync
- Microsoft Live Meeting
- UserFeel
- UserZoom

Results and Recommendations

In many ways, researchers in industry are very similar to researchers in academia. They are highly educated, their focus is on their research rather than the tool that they are using, they like free resources (i.e., Google) as much as the next person.

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