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Why research intranets fail.

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Since the mid-1990s, the promise of intranets has beckoned. These systems can transcend geographical barriers, offer the information workers need, and churn out answers at any time of day. With them, workers can save valuable time and make better decisions.

But less than a decade later, a usability study about research intranets has found that the promise remains largely unfulfilled. Why do intranets fail? How can more usable designs be created? In this article I review usability findings from my company's recent report, based on the 2001 usability study for Special Libraries Association and conducted at Bechtel Corporation, ChevronTexaco Corporation, Fireman's Fund Insurance Company, Gale Group, Gilead Sciences, Sun Microsystems, and Synopsys.

At companies conducting any kind of competitive intelligence (CI), research intranets have become as commonplace as Swingline staplers.

Research intranets are distinct from a growing number of other intranets that help employees get specific work done, such as billing, procurement, or project management. What sets research intranets apart from other company intranets is that they feature a combination of research resources ranging from company-generated content (company news and directories) to links referencing outside sources (e.g., commercial databases such as Hoovers, Dow-Jones, and other research Web sites).

Research intranets are a company-wide resource that is available to all employees. They are often developed by a team that includes special librarians and designers. In many cases, intranets include sites that feature online library services, if the company has a corporate library.

Unwieldy, unusable, and underutilized

In our recent usability study, we found that, despite their ubiquity, research intranets are often too unwieldy and unusable for workers to access. As a result, administrative assistants, managers, and professional researchers, including CI professionals, underutilize these systems.

During hands-on testing at seven companies, we asked employees to complete a mix of simple and complex research tasks on their companies' sites. These included finding such things as contact information for a fellow employee, the latest company news, a recent industry report, and an overview article about the economy.

The results were less than stellar. On the average, we found that the 35 employees in our study could successfully complete only 44%, or less than half, of all the tasks. As a rule of thumb, usability experts consider a success rate of 60% or higher a positive outcome.

CI tasks fared poorly

CI research tasks—detecting a company's external risks and opportunities early on—were the most difficult for participants to complete. Only 44% of the participants could use their company's research intranet to find information about an industry competitor. Worse yet, only 35 percent could find background information on an unfamiliar company about which they were interested.

These findings were not based on the information-seeking habits of employees in just one type of industry, either. Research was conducted at companies that span a broad range of industries, from bioengineering to petroleum: Bechtel Corporation, ChevronTexaco Corporation, Fireman's Fund Insurance Company, Gale Group, Gilead Sciences, Sun Microsystems, and Synopsys.

Why intranets fail

We discovered two underlying reasons why research intranets fail:

- Many sites are poorly designed and just plain hard to use.
- Workers lack the experience to conduct research and use the specific resources made available to them on these systems.

In particular, our study found several specific situations:

With intranets, easy questions can be the most challenging to answer.

When we asked participants to find contact information for the Director of Human Resources, less than half—43%—could come up with the answer. Five out of six sites with contact information put users through a complex two-step process:

- users needed to access an integrated organizational chart from PowerPoint® to get the director's name.
- they needed to remember the name and correct spelling to use the employee look-up tool elsewhere on the site.

News is abundant, but finding certain stories is tough.

Fewer than two-thirds—63%—of the participants could find a recent news story on their intranet. Although company news was front and center on the home page, few sites provided dates that would distinguish the most recent story from others.

Another problem occurred with the labeling of “news buckets.” Buckets with clever names for link labels (Sun uses “SunSpots,” for instance) were overlooked and avoided.

Sites have too many sources, too many answers.

We witnessed a kind of “research paralysis”—a complete failure to take the first click—when we asked participants to find background information about a company competitor. Five of seven sites in the study provided some CI resources, but fewer than half of the participants could successfully use them to complete tasks.

Long lists of seemingly similar resources easily overwhelmed participants. “I know the resources are here, but I have no ideas how to find or use them,” said one participant during testing.

Research intranets are “one-hit wonders.”

Many employees turn to sites and search for the one thing they know they can find—travel expense forms, a company stock quote, or some company news—and leave it at that. Most never explore what else the site might offer them.

The high cost of poor design

If a company is strapped with an unusable research intranet, problems extend way beyond staving off employee frustration. The productivity gains companies hope for from intranets (especially reduced time workers spend on research tasks, data gathering, and analysis) will not materialize. Usability expert Jakob Nielsen estimates that, because of poorly designed intranets, the world economy lost near \$100 billion in 2001 alone.

If you want to hedge your bets and improve the usability of your research intranet, our report, *On-the-Job Research: How Usable Are Corporate Research Intranets?* makes 24 design recommendations, including:

Find out what workers frequently need to know before redesigning a site.

Think of intranets as communication tools, instead of technology solutions. Accordingly, find out what your users want by consulting a mix of sources such as:

- site usage statistics
- frequently used search strategies conducted with a site’s search engine (if there is one)
- a log of frequently asked questions.

Do not assume that you know what users want and need until you have done thorough research.

Organize a site’s content so employees are guided to what they frequently need.

Avoid creating a site that is just a “list of lists” of resources. The rule of thumb for content developers is to be selective, instead of exhaustive. Make frequently used resources more visible than others, using larger fonts, color, and positioning “above

the fold” on the home page. Develop (and test with card sorting) labeling so that it is intuitive to employees. Make use of associated, or supportive, text that describes what a resource is and how it can be best used for research.

Make sure the site has navigational consistency.

Global navigation links (e.g., home, contact, etc.) need to be accessible from all pages, including external pages that are integrated into research sites. These external pages (e.g., Hoovers) may also need local navigation that supports their use.

Our report found that a host of obstacles keep employees from finding information on research intranets. For now, using research intranets is often an arduous and time-consuming task. There is plenty of room for improving how the sites work.

Background

Alison J. Head is a usability expert and founder and principal of Alison J. Head & Associates, a consulting firm in Sonoma, California, specializing in user-centered web evaluation. The firm has worked with clients that include Hewlett-Packard, Sun Microsystems, San Francisco Public Library, and the New York Times Regional Newspaper Group. Alison is the author of [*Design Wise: A Guide for Evaluating the Interface Design of Information Resources*](#) (CyberAge Books, 1999) and [*On-the-Job Research: How Usable Are Corporate Research Intranets?*](#) (Special Libraries Association, 2002). She has a Ph.D. and MLS in library and information science from U.C. Berkeley and studied Human-Computer Interaction at Stanford University as a Visiting Scholar.

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