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UIE Reports: Best Practices Series

Getting Them to What They Want

By Erik Ojakaar and Jared M. Spool

Eight Best Practices to Get Users to the Content They Want (and to Content They Didn't Know They Wanted)



User
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UIE Reports: Best Practices Series

For more than six years, User Interface Engineering has conducted innovative research on making web sites as usable as they can possibly be. Our research team has spent hundreds of hours observing real people using real sites, trying to understand why some sites perform better than others.

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800.com
www.800.com

AARP
www.aarp.com

BuyItNow.com
No longer available

CancerNet.com
cancernet.nci.nih.gov

Cisco
www.cisco.com

CNN
www.cnn.com

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Staples
www.staples.com

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Getting Them to What They Want

The best sites make it easy for users to get to their content. Here's how they do it.

Web designers spend lots of time, energy, and resources creating content for their sites, content they want users to find. Sometimes, users know what they want before they arrive at the home page. Sometimes, the designers provide useful content that users didn't know existed.

As designers, how do we get our users to both kinds of content, quickly and efficiently? In this report, we will answer this question by looking at the best practices we've found on the web.

We've spent hundreds of hours watching people try to find content on web sites. Some sites always get their users to the critical content. Other sites don't do nearly as well. We'll share what separates the best from the worst. When we're done, you'll have some great ideas on where to go next.

Users Find Content Three Ways

From a home page, users have only three ways to look for content on the site. They can choose from the site's category links, they can use the site's search engine, or they can click on any featured content displayed on the home page. (Figure 1)



Figure 1: Most home pages, such as aarp.org offer users three ways to navigate to content – 1) Search, 2) category links, or 3) featured content.

In our research, we tried to answer two important and related questions. First, what can designers do to get users to the content they are looking for? Second, what can designers do to take users to desirable content they were *not* looking for? In the usability tests we conducted to answer these questions, we asked users to find specific content they were

seeking. We observed the users and found that some sites got them to content better than others did. After examining data from hundreds of users on dozens of sites, and talking with teams that created these sites, we've identified eight best practices that make the best sites stand out from all the rest.

We found that designers of the best sites:

1. Keep users from using Search
2. Know how their users think and what content they want
3. Build home pages that reflect the site's priorities
4. Create categories that users can understand and differentiate
5. Study their search logs to identify trigger words
6. Use multilevel categories when necessary
7. Understand that different users think differently
8. Measure the success of the sites' categories

Best Practice #1: Keep Users from Using Search

Search engines are prominent on many web sites, so it's logical to think they play an important role in helping users navigate to content. We all know that after having trouble locating what they are looking for, many users say, "I wish they had a search engine." Therefore, when we noticed that the best sites actually worked hard to prevent users from using the search engine, it seemed counterintuitive to us—and worth investigating.

As we examined users' click streams, we discovered that users that found content were far more successful when they navigated by using categories than by using Search. In fact, users were far more likely to find their target content when they *didn't* use the site's search facilities than when they did. (Figure 2)

Users ran into several problems when they tried finding content by using Search. For example, when one user tried searching for "Return Policy" on Amazon.com, she found 43 books on the topic, but nothing that explained Amazon.com's policy.

If users successfully made it to a search area that which would have the content they sought, they often had trouble entering the right words. Often, something as simple as a misspelled word would stop them—and few search engines helped them find or correct the error. In addition, users often made mistakes in the syntax of complex searches.

Finally, users can have trouble interpreting the results. It is often difficult for users to determine why the search produced the results it gave them. Search results can be cryptic, terse descriptions, often taken directly from the HTML title tags—text designers

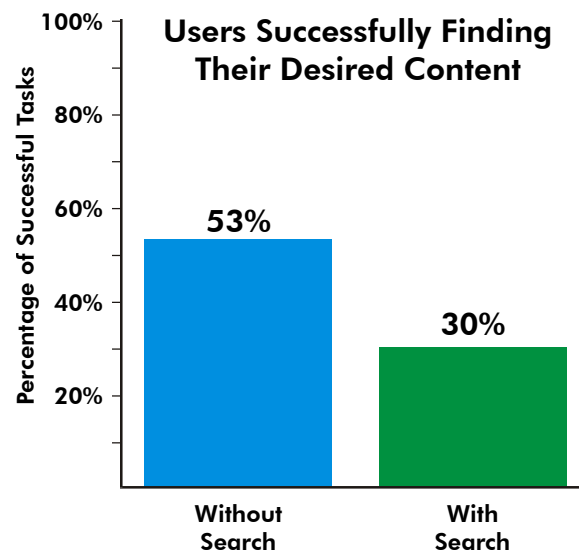


Figure 2: Users were 77% more likely to find their target content when they didn't use Search than when they did.

rarely considered important in the design process. Users had more trouble dealing with multi-page lists of hits than with single-page lists. Multi-page lists were far less useful than single-page of results. The users we observed rarely went to the second page of results, and almost no one clicked beyond the second page.

Search worked best on sites such as Amazon.com, where users can easily specify a target using a predefined element such as a title or author. For example, it's easy to find the Britney Spears' CD, "Oops! I Did It Again" if you know either the title or the performer, there's only one possible result. However, there are dozens of sweaters on the Lands' End site, and that's the kind of situation where users got into trouble. Most sites are more like Lands' End than they are like Amazon.com.

Because of the problems with Search, users failed to find their target content as often as 70% of the time. While enhanced technology might solve some of the problems, we believe that the optimal search solutions are still several years away. Therefore, in the meantime, we need to look at the short-term solution of keeping users from going to search in the first place.

If Search doesn't take users to desired content, then users have only two other choices: the category links or the featured content. Designers can try to put the most popular content in the featured section, but there are limits to the real estate. Therefore, designers need to encourage users to follow category links to increase the odds that users will get the content they are seeking.

Get Users to Content They Weren't Even Looking For

We also looked at how users discovered content they were not looking for but found desirable or interesting—a common occurrence. For example, in our study of e-commerce sites, many users ended up finding—and frequently purchasing—products that weren't on their shopping lists. We think designers can easily encourage this behavior. In all our tests, most users who found these unexpected products got there by using category links. We found that category links led users to this content 3 times more often than Search results did. (Figure 3)

How Users Found Other Valuable Content

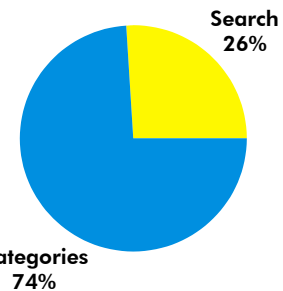


Figure 3: Users are three times more likely to find other content of interest when using categories than when using Search.

Surprisingly, we also discovered that users were 3 times more likely to continue browsing if they'd followed category links to their original desired content than it they got there with Search. (Figure 4)

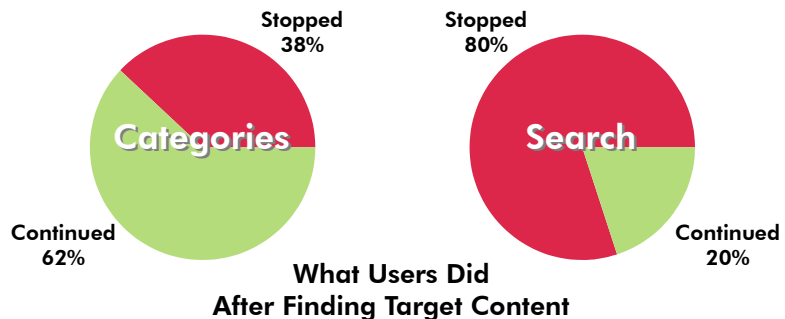


Figure 4: Users are 3 times more likely to continue browsing the site after locating content they want when using categories than when using Search.

Apparently, users who follow category links see a lot more of the site's content than

those who use Search, so they're much more likely to discover additional content that interests them. Conversely, those who use Search effectively skip over the site's information architecture and see only the narrow scope of their tasks.

Interestingly, no user got to this unexpected content by following home page links to featured content. (We'll talk more on this later.)

Therefore, the designers of the best sites seem to understand that Search keeps users from getting what they want—and from finding content they were unaware they wanted.

Search = Failure of the Links

When you watch as many users as we have, you begin to see patterns in their behavior. For example, we noticed almost immediately that users go to Search *only* after they've decided that the links on the page didn't meet their requirements.

When users arrive on a page, they first scan for the key words (we call them *trigger words*) that are relevant to what they are seeking. Only when they don't find any trigger words, do they use Search.

Do some users always use Search?

In the academic community that studies web-site usability, there's a theory called *Search Dominance*, which asserts that a certain segment of the population will always use Search. The theorists often equate this to being left-handed – some people are just born that way.

But we disagree.

In a recent study of e-commerce sites, we asked 30 users to shop on three to six sites each. As we've heard in other studies, many of these users told us that they *always* use Search, no matter what the home page looks like.

However, when we watched these users shop, we found that nobody exclusively used Search on every site. In fact, 18% of the users always used category links. The rest used Search on some sites and used category links on the others.

When we examined our data, we found site after site where *every test participant* used Search. Surprisingly, this was true on 21% of the tested

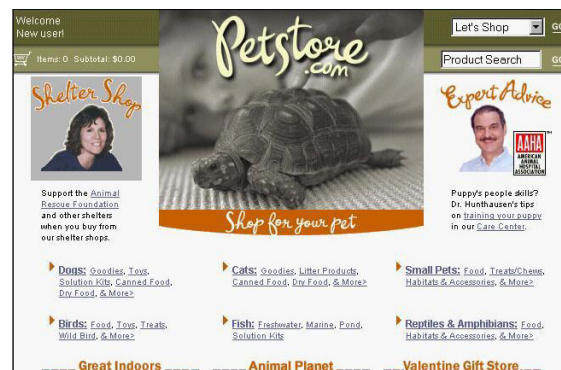


Figure 5: All of the users on Petstore.com chose categories to locate specific content even though search was a prominent option on the page.



Figure 6: All of the users on Buyitnow.com chose search to locate content even though the site offers a plethora of categories from which to choose.

sites. We could believe that this would happen on one, maybe two, sites. However, we found it very interesting that this happened on 21% of the sites tested.

Imagine a restaurant in which every diner is left-handed. The probability of this happening at random is extremely low. Now, imagine that *every* diner is left-handed in 21% of all the restaurants in the whole city. The probability of *that* happening by luck is extremely low. Something else must have caused it.

If the search-dominance theory is correct, then its counterpart, category dominance must also exist. So this should not have happened: *some* users should've have used only category links on those same sites.

How do we account for the fact that every test participant used *only* Search on certain sites? We believe that the site designs created these results. Every user on these sites had trouble finding the trigger words they wanted, so they had to search—that is, they created their own trigger words. The designers unintentionally (or maybe intentionally) created category links that kept users from finding their trigger words. (Figures 6 and 7)

Is Search a Shortcut?

Designers often tell us they *want* users to go to the search engine. They say, “If users know exactly what they want, the search engine is the fastest way to get it.” Intuitively, this makes sense: If users tell the search engine what they want, it should take them directly to that content. We tested this theory in a recent study. By studying the click streams of users who knew exactly what they wanted *and* found it, we learned that users who used the search engine took an average of 5.1 clicks to find their content. By contrast, users who followed category links got to their content in an average of 4.4 clicks. These results show that category links were faster than Search! Moreover, we've found consistently similar results in many of the studies we've done. We believe this disproves the presumption that Search is a shortcut.

Keep Users from Using Search

This finding doesn't mean that designers of the best sites eliminate Search or hide the links. However, it does mean they've found a way to keep users from Search in the first place. For example, the successful Petstore.com site had a prominent search box on the home page, yet every user went straight to the category listings. (Figure 5)

Best Practice #2: Understand How Users Think About the Site's Content

As we've stated, the best way for designers to ensure that users click on category links instead of using Search is to provide the right trigger words on the page. The best way to find the most-effective trigger words is to understand how users think about the content of the site.

In our tests, we've noticed that users, who had never been on these sites before, sometimes just seem to *know* where to look, apparently without needing to give the categories much thought. It's as if the user knew where they were going to go even before the home page loaded.

On other sites, however, users pause and carefully consider all of the site's category choices. On these sites, users have acted as if they'd never seen these categories before.

When we looked for patterns, we noticed that *the type of content* determined whether users instantly knew where to go. For example, users in our e-commerce studies immediately knew where to go on every site that sold clothing or pet supplies, but they seemed lost on sites that sold electronic gadgets or computer accessories. (This discovery interested us: most of the users were technically competent and we would've expected technical sites to do well.)

Based on these observations, we concluded that sites require different kinds of designs to accommodate the varying levels of knowledge users have about the site's content. We formulated a hypothesis that the more users know about the content's categories, the more likely they will use those categories.

To test this hypothesis, we administered a simple survey to hundreds of people to learn how familiar they were with the categories of five different types of content. We asked participants to examine lists of specific products and then write down the words or phrases they would look for on a web site selling each product. (Figure 7)

Then we compiled the data to see which words or phrases occurred most often for each product. We used the term *level of agreement* to describe the percentage of people who listed a particular word or phrase to categorize an item. A high level of agreement means that many people share an understanding of the best way to categorize an item. The survey showed that pet supplies had the highest level of agreement, and gadgets (such as a home weather station) had the lowest level of agreement. (Figure 8)

When we compared these findings to our data showing whether users found products by clicking on a category or using Search, we found that users on the pet supplies and clothing sites most often clicked on categories first, while those on computer accessories and gadget sites were least likely to follow category links. (Figure 9)

Product	Top Level Category	Second Level Category <small>(if necessary)</small>
56K modem	MODEMS	
architectural software	SOFTWARE	
palm pilot cover	PDAS	ACCESSORIES
mouse	MICE/KEYBOARDS	

Figure 7: Survey we used to measure pre-existing knowledge of categories. We asked participants to write the names of the category where they would expect to find the item listed on the left.

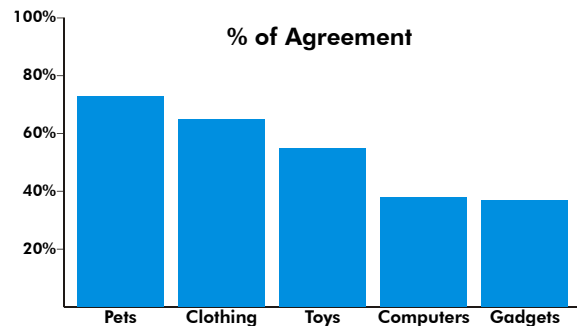


Figure 8: Pets and Clothing sites had the highest levels of category agreement with pre-existing knowledge. Computers and Gadgets had the least.

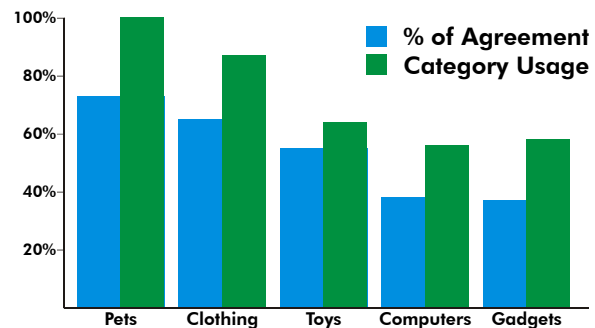


Figure 9: When users were familiar with the categories, they were more likely to click on category links.

Different Types of Sites Require Different Designs

These results showed us that different types of sites require different types of designs. The major difference is whether users have trouble categorizing the content. When users have a low level of agreement with the site's categories, designers need to create more-explicit categories with lots of different trigger words. When there is a high level of agreement, designers can use fewer category links. (Figure 10)

How can designers determine the users' level of agreement for their site's content? One way is to repeat the survey we conducted, giving users a list of content they might seek and asking them to write down category words or phrases they would expect to find. If the users all agree on the category for an item of content, they'll use those categories. Lower levels of agreement mean that designers can improve their categories by using the most-popular user terms as trigger words.

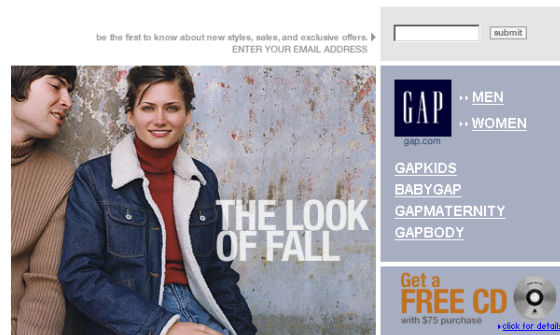


Figure 10: Users were most likely to agree on categories for apparel sites, such as the Gap. Consequently, apparel sites do not need to provide as much category description on their homepage.

Best Practice #3: Reflect the Site's Priorities on the Home Page

Home pages are not simple. They have to reflect the goals of the organization—and most organizations have many goals—and they have to be usable. For example, e-commerce sites exist mainly to sell things. However, these sites have other goals, including promoting new product lines and enticing shoppers to buy featured or sale products.

The challenge for designers is to use a limited amount of real estate to accomplish each goal as well as possible. Not all goals are equal, so designers need to ensure that the distribution of space on the home page reflects the correct priorities. Designers often tell us there are two competing goals for the highest priority:

1. Ensuring that users who know what they want get the content they seek; and
2. Ensuring that users who are unaware of the site's total breadth and depth leave the site knowing what content is available.

If these two priorities really were equal, it would seem logical to split the home page evenly, designing half of the page for users who know where they want to go and using the other half to point the remaining users to featured content that shows off the breadth of the site. Some designers even have the featured content



Figure 11: PC Connection handles competing priorities by dividing their homepage into sections.

change regularly--sometimes as often as every page refresh--so users are constantly introduced to the site's wealth of content.

The designers of PC Connection's home page used a version of this 50-50 method. (Figure 11) The most prominent part of the home page features sale products, with most of the site's categories relegated to a thin navigation bar below the scroll of the page.

When we watched users visit the PC Connection site, we noticed that many users who knew what they wanted didn't see the categories below the fold and therefore ended up going to the search engine (and risked not finding their target content).

We also noticed a handful of featured products on the home page did not impress users who *didn't* have a specific product in mind. Because these users couldn't see the breadth of what the site had to offer, many of them left the site before identifying any products of interest. If featuring sale products on the home page were effective, we would expect to see users impulsively adding these featured products to their shopping carts. Although we saw many shoppers make impulse purchases, none of them purchased featured products on the home page.

Unlike the PC Connection.com home page, the Staples.com home page gives category links the majority of the center real estate, while it relegates the featured products to the left-most column. (Figure 12) This serves both types of users. Those who know exactly what they are looking for can find a category that describes their needs, and those who aren't as focused get a good overview of Staples' offerings.

Like the Staples.com home page, the CancerNet.com home page uses many category links. (Figure 13) We think it's interesting that the CancerNet home page has so little featured content. However, this strong focus on category links helps the site communicate its contents extremely effectively, even for people visiting the site for the first time.



Figure 12: Staples puts uses most of its page real estate for the category links, with the featured products relegated to the left-most column.

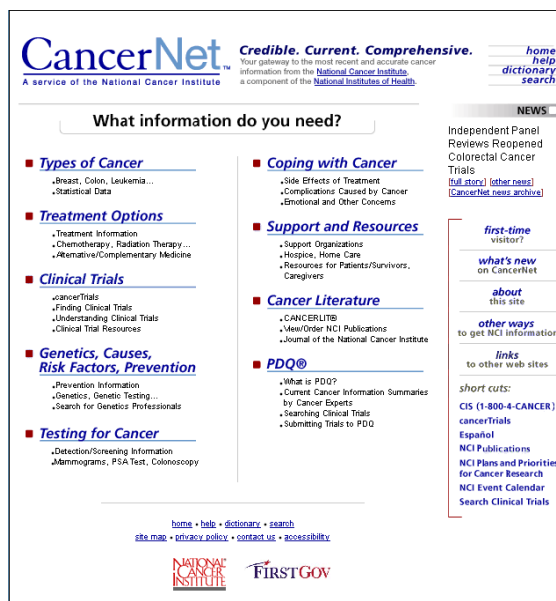


Figure 13: CancerNet has virtually no featured content on the homepage, only category links to demonstrate the wealth of available content.

Based on our studies, we’ve concluded that the best sites look more like Staples.com and CancerNet.com and less like PC Connection.com. Our research shows that even though Staples.com doesn’t display products prominently on its home page, its in-depth display of the site’s contents is likely to generate impulse sales. Similarly, with its many category links, CancerNet will likely lead users to content they weren’t previously aware of, such as new cancer treatments or clinical trials.

Best Practice #4: Clearly Differentiate Your Categories

Once designers know what real estate they will devote to categories, the next challenge is determining which categories will be most effective—by using the best trigger words. As we’ve noted, designers can find trigger words by asking potential users what categories they’d look for. However, that won’t give designers all the categories.

Category links always appear with other category links and they work best when they’re clear and distinguishable throughout the site, not only on the home page.

For example, category links on the Marketplace4U.com site show users the products the site sells, but users had trouble choosing the correct category. (Figure 14) In one test, a shopper who wanted wireless headphones (so she wouldn’t disturb her husband while watching TV) couldn’t decide between Home Audio, Home Video, or Portable Audio.

Note that the confusion was specific to this user’s task. Out of context, the categories seem clear. However, the differentiation fades within the context: searching for wireless headphones. Home Audio seemed a likely choice because headphones are audio devices and she wanted it for her home. However, Portable Audio could also be a candidate because headphones are portable. Finally, Home Video also made sense because she wanted to use the headphones with her TV. In the end, the user gave up struggling with the categories, used Search, and subsequently, never found headphones to buy.

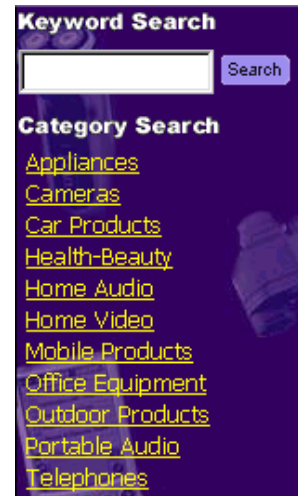


Figure 14: A user looking for wireless headphones on Marketplace4U.com couldn’t decide between Home Audio, Home Video, or Portable Audio.



Figure 15: One shopper couldn’t tell the difference between Women and Young Attitude on the Macys.com site. Which category would show her good clothes for school? She also didn’t understand the difference between Beauty and Boutiques.

A similar problem confused users on the Macys.com site. (Figure 15) An 18-year-old student, shopping for clothes for her first semester in college, didn’t know whether to click on Women or Young Attitude. In addition, she didn’t know the difference between Beauty and Boutiques, and didn’t know what she’d find under Trends.

When she chose Young Attitude, the next set of categories also confused her. (Figure 16) Although she understood the difference between Her Stuff and His Stuff, she didn’t know

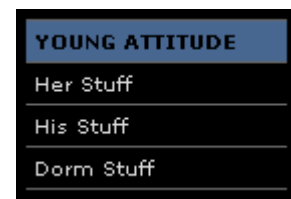


Figure 16: Macys.com users didn’t understand the difference between Dorm Stuff and Her Stuff.

if Dorm Stuff would lead her to clothes especially for dormitory life. (When we checked, we found that the category contains items such as small microwave ovens, towels, CD players, and inflatable chairs--but no clothing.)

Category links are like doors. Imagine entering a library, knowing exactly which book you wanted and finding that all the shelves are behind labeled doors. If we haven't labeled the doors clearly, giving you clues about how each label differs from the others, you have no chance of locating the book. However, if we'd made it easy for you to choose the correct door, you'd find the book immediately. This is how users approach category links. When designers have clearly differentiated the categories, the links lead users to their desired content almost immediately. When the differentiations aren't clear, users struggle and rarely find the content they seek.

The Staples.com designers used subcategories to help differentiate among major categories such as Office Supplies, Furniture, Technology, and Business Services. (Figure 17) A user looking for a lamp for his desk found it quickly in the Lighting subcategory under Furniture. A user looking for a printer cartridge found it quickly under Technology.

CancerNet.com takes a slightly different approach. (Figure 18) It uses bulleted descriptions to help define each category. Although a first-time visitor might not understand how Treatment Options differs from Clinical Trials or from Testing for Cancer, the bulleted items under each topic make the distinctions clear.

These examples show that the best site designs use meaningful trigger words to differentiate among categories and keep users from defaulting to Search. The main difference between Staples.com and the less-successful Marketplace4U.com is the abundance of trigger words Staples' designers have included.

Use Descriptive Words to Identify Trigger Words

Unfortunately, as we've noted, it's not easy to identify appropriate trigger words. Words and phrases that designers understand may be meaningless jargon to users. After all,

Office Supplies

- > Binders & Binder Accessories
- > Briefcases & Travel
- > Cartridges & Toner
- > Desk Accessories & Rolodex
- > Envelopes
- > File Folders & Filing
- > Forms & Stamps
- > Labels
- > Mail & Ship
- > Maintenance & Breakroom
- > Pads & Post-It® Notes

Furniture

- > Bookcases
- > Chairs & Chairmats
- > Desks & Collections
- > File Cabinets
- > Lighting

Technology

- > Cartridges & Toner
- > Computer Accessories
- > Computer Media
- > Computers & Monitors
- > Copiers & Fax
- > Digital Cameras & Scanners
- > Networking
- > Office Machines
- > Internet Services

- > Paper
- > Pens, Correction, Markers & Art
- > Planners & Calendars
- > Presentation & Meeting Supplies
- > Printing Services
- > Retail Sales Supplies
- > Rubberbands, Clips & Tacks
- > Scissors, Rulers & Trimmers
- > Staplers & Paper Punches
- > Storage & Organization
- > Tape, Glue & Adhesives

- > Office Furnishings
- > Panel Systems
- > Printer/Machine Stands
- > Shelving & Storage Systems
- > Tables

- > Office Machines Supplies
- > PDAs & Handhelds
- > Peripherals
- > Printers & Multifunction Machines
- > Ribbons
- > Software, Books & Training
- > Software Downloads
- > Software Licensing
- > Telephones & Communication

Figure 17: Is a desktop lamp an office supply or furniture? On Staples.com, the subcategories gave users a clear answer.

- **Types of Cancer**
 - Breast, Colon, Leukemia...
 - Statistical Data
- **Treatment Options**
 - Treatment Information
 - Chemotherapy, Radiation Therapy...
 - Alternative/Complementary Medicine
- **Clinical Trials**
 - cancerTrials
 - Finding Clinical Trials
 - Understanding Clinical Trials
 - Clinical Trial Resources
- **Genetics, Causes, Risk Factors, Prevention**
 - Prevention Information
 - Genetics, Genetic Testing...
 - Search for Genetics Professionals
- **Testing for Cancer**
 - Detection/Screening Information
 - Mammograms, PSA Test, Colonoscopy

Figure 18: CancerNet.com uses descriptions under each category to help differentiate the content.

designers live with those terms every day, but a user could be seeing them for the first time.

The developers of the best sites have told us they start creating good trigger words by looking at a subset of these words, which we call descriptive words. They get these descriptive words by asking users directly what they are looking for.

For example, one Lands' End shopper told us he wanted "a pair of men's pants, for working in a casual office." For him, the descriptive words are "men's," "men's pants," "working," "casual," and "office."



Figure 17: A user looking for "rechargeable batteries for a digital camera" quickly found the "digital cameras" link.

To demonstrate how descriptive words influence the way users choose content on the sites we studied; we counted how often these words appeared on the home page. If the users' descriptive words had no impact, we would see no relationship between their presence and whether users used category links or Search.

In fact, our analysis showed that users were twice as likely to select categories over Search when the links included these descriptive words.

Therefore, asking users is a great way to identify their trigger words. Designers can start with the descriptive words, and then ask users to give them likely synonyms. For example, a user looking for a modem might start with "accessories," but a little brainstorming can turn up terms such as "peripherals" and "communications hardware."

Best Practice #5: Use Search Logs to Identify Trigger Words

Another way to identify users' trigger words is to examine the terms they've typed into the search box. Using this technique, we found that users' search terms matched the descriptive words 82% of the time. It's as if users are creating their ideal link.

For example, a user looking for a "computer vacuum to clean out computer" typed both "computer vacuum" and "computer vacuum cleaner." Another user looking for "Friskies poultry platter cat food" typed "Friskies Dry Food."

In fact, our analysis showed that users' search terms were not present on the page 71% of the time. This is further evidence to support our theory that users are most likely to go to Search when they fail to find trigger words on the page. When we looked at the remaining 29% of the searches, we frequently discovered that the trigger words were present, but the site design obscured them. We have no evidence whether the user saw these hidden trigger words, but we believe that most probably didn't.

Peripherals:

Digital Cameras, Keyboards & Keypads, Memory Upgrades, Mice, Modems, Monitors, Multimedia, Power Equipment, Processors, Printers, Scanners, Speakers, UPS Systems, Video Adapters

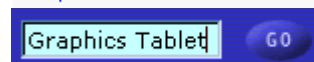


Figure 18: A shopper looking for a graphics tablet on Tech-Store.com couldn't find it in the categories, so she typed "Graphics Tablet" into the search engine.

For example, a user looking for a graphics tablet on TechStore.com rigorously searched the available categories. (Figure 18) After deciding, that none of the categories worked she finally went to the search box and typed in “Graphics Tablet.” She never did find one to buy, even though the site sold about a dozen different models.

Our study of users’ search terms found an interesting pattern that casts doubt on the common wisdom that people go to Search to look for something specific. Under this logic, most of the search terms should have been specific, such as the first three items in Table 1. However, we found that users entered *general* terms more than half the time, such as the last five items in Table 1.

By paying close attention to what users are telling them through their search terms, designers can identify both the specific trigger words and the general category users expect to see.

	Target	Search Words
Specific	Mac Pack for Palm V	“Mac Pack for palm V”
	Pokemon Yellow game	“Pokemon Yellow”
	Swiss Army Knife	“Knife Swiss Army”
General	Frye boots	“boots”
	MS Intellimouse	“mouse”
	Colored pencils	“craft supplies”
	Pearl earrings	“jewelry”
	Chino pants	“men's pants”

Table 1: Search terms users entered. Note that the final five items are general categories, even though the user was looking for specific items.



Figure 19: Cisco’s homepage shows multiple levels of categories all on one page.

Best Practice #6: Use Multiple Levels for Category Information

The word a designer chooses for a category is a short hand for all of the content that users will find underneath that category. Sometimes, no single word or phrase will adequately describe that content.

The designers who create the best sites understand this idea. To support the category titles, they dig into the site’s hierarchy and bring the content to the surface.

For example, categories on the Cisco site include Ordering, Partners & Resellers, and Service & Support. (Figure 19) Cisco’s designers provide links to major content areas under each category heading so users can see what each category covers and jump directly to the correct content. The designers of



Figure 20: CNN.com uses story links to list the articles in each category.

CNN.com, had to include so many stories that they created many groups to help users find what they want. (Figure 20) Some of these group categories are obvious, such as Sports and Finance. However, some of them aren't as clear to users, who might have trouble choosing from U.S. News, Politics, and International. However, the design generally works well.

Conversely, the categories on MSNBC.com don't reveal specific article headlines until users move the mouse cursor over the headings.

Although the MSNBC.com design conserves screen real estate, it keeps users from seeing the whole hierarchy at once.

Our research shows that the best designs use the site's content to enhance the categories, providing more places where trigger words can appear and creating categories that are clearer and better differentiated. Therefore, the CNN.com design is more effective because it lets users compare many categories at once.



Figure 21: MSNBC.com uses ActiveX mouseovers to show the stories in each category. This design makes it difficult for users to determine what stories live under topics such as America Strikes Back and Special Coverage.

Best Practice #7: Understand that Different Users Think Differently

As we discussed above in Best Practice #4, it's important to ensure that users clearly understand what makes each category different. Part of that is making sure that the users understand what the category means at all.

One recent client was a technical recruiting company whose designers had created a cool feature to help jobseekers show off their accomplishments. They named the feature "TechFolio" and placed it prominently on the site. However, nobody ever clicked on the link.

The designers were puzzled. When they showed this feature to users, all the users said it would be helpful. However, they all said they didn't expect something named TechFolio to help them.

What happened? The designers had been working with the TechFolio concept for almost a year, and it seemed like a great idea to them, something that made perfect sense. Nevertheless, the obscure name meant nothing to the users.

This wasn't the first time we've heard a story like this. Designers often use terms and words that make sense to them, but completely mystify users.

Development teams for the best sites understand that this problem can happen and they work hard to avoid it, carefully scrutinizing every term, looking to see if they cause any confusion.

In addition to avoiding obscure terms, these designers also make sure they've categorized things the way different users might expect. Sometimes this means putting sub-categories in more than one place to accommodate these different ways of thinking. For

example, the Sears.com designers needed to decide whether to place floor care products (vacuums, floor cleaners, and accessories such as filters and hoses) under Appliances or Housewares.



Figure 22: The designers put their Floor Care products under both Appliances and Housewares.

It was a tough decision, but the designers did a smart thing: they put Floor Care under both categories. (Figure 22) After all, a vacuum cleaner is an appliance that people use to maintain the house.

Nordstrom also puts products under more than one category. Shoppers on the site can find products by category, brand, department, or special sizes. (Figure 23) For example, a shopper could find the same pair of maternity pants by choosing “Pants” under “category” or “Maternity” under “department.” This design exposes customers to many brands they might otherwise never see.

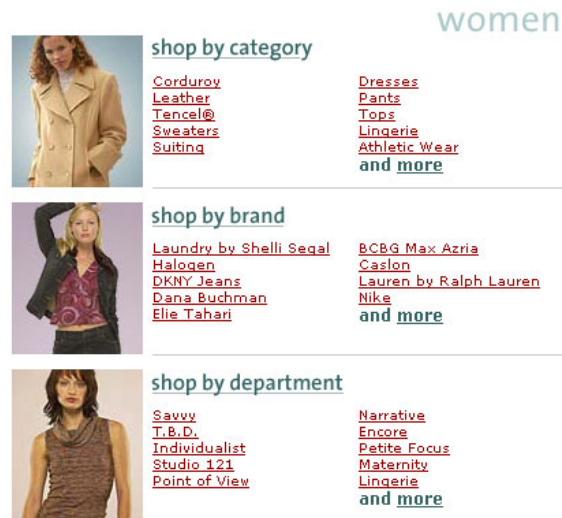


Figure 23: Nordstrom gives multiple paths into the content.

Users usually don’t think the same way designers do, and they rarely even think like each other. Giving users multiple paths to the same content ensures that they get what they want *and* introduces them to the other content available on the site.

Best Practice #8: Measure the Categories’ Success

Many organizations we’ve worked with follow a development process with only a few steps: work hard on a design, considering every aspect, launch it, then move on to the next design. However, few of these teams look at the site after they launch it. Therefore, they don’t know whether they’ve accomplished what they set out to achieve.

On the other hand, organizations that produce the best sites *do* take the time to review and test each design. It isn’t hard to do and it doesn’t take much time.

They often do this with simple usability tests, tests that don’t require any fancy equipment or a special laboratory. All they need is for someone on the team to watch real users who are looking for content they want.

And it can be easy to find users. For example, one organization with an online auction site keeps a list of local people who regularly buy and sell on the site. Every so often, they ask a few of these users to come into their offices with some items in mind they want to buy or sell. They interview them for a few minutes, ask them to describe the products (getting their descriptive words), and then have them complete their tasks on the site.

One important measure is the users' confidence level—how sure are they that they'll find what they want. During the test, the team frequently asks users, "Do you think you're getting closer to your goal?" (Some groups use a seven-point scale from "Much Farther" to "Much Closer")

We've found that more-confident users are more likely to reach their target content. By measuring user confidence throughout the process, design teams can discover which categories work well and which ones fail to help users.

These designers also look for other clues:

- Do users go to the search engine?
- If so, what do they type into the search box?
- Were those words prominent on the page?
- Did some of the site's terms confuse users?
- Are the users' descriptive words (and likely synonyms) clearly visible on the page?

Sometimes the teams will ask users to name the categories in which they expect to find the products. At other times, they'll look at the pages found at the next level down in the hierarchy to look for potential trigger words. They'll use the words they find to create a multilevel category list.

There are many ways to measure whether a design meets its goals. The specific techniques aren't important, as long as the team is learning what they can do better. After all, we can only improve when we have a chance to learn from both our mistakes and our successes.

Getting Them to What They Want

When all is said and done, what matters most is that the users get the content they want, whether they knew it existed or not. For most sites, if the users get what they want, everyone wins.

Our research has convinced us that categories play a huge role in the users succeeding. We were surprised in some of our findings, such as the importance of pre-existing knowledge and trigger words, but as often is the case with this type of research, it makes sense once the entire puzzle begins to take form. We were surprised the most by how consistent this research is across lots of different sites and many different users.

To make sure that your site is similar, you'll want to measure it, using the techniques in the previous section. You'll want to watch users and see what they do. You may find the results surprising, too.

Your Thoughts

What you think about the practices we've discussed? Do they match with your experience? Have you found other practices that work well for you?

Please email your thoughts to us at UIEReports@uie.com. We'd love to hear from you.

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There isn't a person on the planet that knows more about how users navigate from a home page than Erik Ojakaar. He has spent the last year combing through mounds of click stream and videotape data, compiling spreadsheets, charts, and tables to explain how people move through sites. He's presented his research to enthusiastic audiences at CHI 2001 and at every UIE Research Forum.

Erik came to User Interface Engineering after 11 years at L.L. Bean where he was a chief architect of over a dozen intranet websites, led a team of web developers and served as a designer / developer on the llbean.com. He has a BA from East Carolina University; he's a certified Webmaster from Northeastern University; and he has studied design at the Maine College of Art.



Co-authors Erik Ojakaar (left) and Jared M. Spool (right) doing field research. Elmer is their favorite John Deere Gator.

Jared M. Spool, Founding Principal (jspool@uie.com)

If you've ever seen Jared speak about usability, you know that he's probably the most effective, knowledgeable communicator on the subject today. What you probably don't know is that he has guided the research agenda and built User Interface Engineering into the largest research organization of its kind in the world. He's been working in the field of usability and design since 1978, before the term "usability" was even associated with computers.

Jared spends his time working with the research teams at the company, helps clients understand how to solve their design problems, explains to reporters and industry analysts what the current state of design is all about, and is a top-rated speaker at more than 20 conferences every year. He is also the conference chair and keynote speaker at the twice-annual User Interface Conference, is on the faculty of the Tufts University Gordon Institute, and manages to squeeze in a fair amount of writing time.

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