Overview

• Method
• Results
• Recommendations
Method
User-Centered Design

Objectives
- Research and Planning

Strategies
- Conceptual Design and UI Structure

Tactics
- Detailed Page Design and Interaction

Site Strategy

Knowing Users and Their Goals

Navigation Design

Information Architecture

Page Types

Interaction Design
- Web Controls and Interaction
- Error Handling and Feedback

Content Design
- Editorial Style

Presentation Design
- Page Layout
- Color Management
- Functional Graphics
- Typographical Elements

Ongoing Assessments
- Usability Testing
- Internationalization
- Accessibility
- Standardization
# Types of Usability Testing

<table>
<thead>
<tr>
<th>Development Stage</th>
<th>Design Issues</th>
<th>Technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feasibility</td>
<td>Value of functions</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>Task design</td>
<td>Practicality Completeness</td>
<td>Storyboard walkthrough</td>
</tr>
<tr>
<td>UI structure</td>
<td>Self-evidence Efficiency</td>
<td>Protocol simulation</td>
</tr>
<tr>
<td>Detailed design</td>
<td>Layout General presentation</td>
<td>Expert review</td>
</tr>
<tr>
<td></td>
<td>Performance</td>
<td>Affordance test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Protocol simulation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Task modeling</td>
</tr>
<tr>
<td>User satisfaction</td>
<td></td>
<td>Usability questionnaires</td>
</tr>
<tr>
<td>Production</td>
<td>Performance</td>
<td>Benchmark testing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comparison tests</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Usage logs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Online surveys</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback</td>
</tr>
</tbody>
</table>
Purpose of Usability Testing

Gather data to answer the question:

Can real users accomplish real tasks on the site?
How Many Participants are Needed?

The most striking truth of the curve is that zero users give zero insights.
Participants

- 11 professionals including researchers and practitioners
- 11 members of the general public including teachers, students, writers, advocates

See also detailed recruiting/screening criteria
Representative Tasks Related to:

- General Information about NIH
- Ongoing Research
- News and Events
- Health Information
- Educational Resources
- Research Funding
- Training Information
- Research Resources

See also detailed test moderator’s guide
Usability Testing Lab

Observers and recording equipment behind one-way view glass in control room

Participant and test moderator in testing room (cannot see into control room)
Procedure

• Participants sign Informed Consent and Permission to Videotape form (they are told in advance too)
• Participants are paid a “thank-you” fee for their time
• Sessions take about an hour
Results

See also detailed test moderator’s guide and results spreadsheets
## Results: Introductory Tasks

<table>
<thead>
<tr>
<th></th>
<th>Professionals</th>
<th>Publics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Purpose</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2 In charge</td>
<td>68</td>
<td>91</td>
</tr>
<tr>
<td>3 Stem cell</td>
<td>91</td>
<td>86</td>
</tr>
<tr>
<td>4 Institutes</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Percent successful shown in table cells
## Results: Ongoing Research at NIH

<table>
<thead>
<tr>
<th></th>
<th>Professionals</th>
<th>Publics</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Studies</td>
<td>50</td>
<td>55</td>
</tr>
<tr>
<td>6 Labs</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>7 Non-scientists</td>
<td>80</td>
<td>67</td>
</tr>
<tr>
<td>8 Participate</td>
<td>67</td>
<td>50</td>
</tr>
<tr>
<td>9 Candidate</td>
<td>71</td>
<td>86</td>
</tr>
</tbody>
</table>

Percent successful shown in table cells
## Results: News and Events

<table>
<thead>
<tr>
<th></th>
<th>Professionals</th>
<th>Publics</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Talks</td>
<td>73</td>
<td>68</td>
</tr>
<tr>
<td>11 Results</td>
<td>64</td>
<td>95</td>
</tr>
<tr>
<td>12 Press release</td>
<td>73</td>
<td>75</td>
</tr>
</tbody>
</table>

Percent successful shown in table cells
## Results: Health Information

<table>
<thead>
<tr>
<th></th>
<th>Professionals</th>
<th>Publics</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Condition</td>
<td>88</td>
<td>73</td>
</tr>
<tr>
<td>14 Heart attack</td>
<td>93</td>
<td>85</td>
</tr>
<tr>
<td>15 Specifics</td>
<td>100</td>
<td>93</td>
</tr>
</tbody>
</table>

Percent successful shown in table cells
## Results: Educational Resources

<table>
<thead>
<tr>
<th></th>
<th>Professionals</th>
<th>Publics</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Talk</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>17 Teach</td>
<td>57</td>
<td>29</td>
</tr>
</tbody>
</table>

Percent successful shown in table cells
## Results: Funding

<table>
<thead>
<tr>
<th></th>
<th>Professionals</th>
<th>Publics</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 Your area</td>
<td>75</td>
<td>N/A</td>
</tr>
<tr>
<td>19 Qualified</td>
<td>33</td>
<td>N/A</td>
</tr>
<tr>
<td>20 Institutes</td>
<td>30</td>
<td>N/A</td>
</tr>
<tr>
<td>21 Training</td>
<td>80</td>
<td>N/A</td>
</tr>
<tr>
<td>22 Contracts</td>
<td>100</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Percent successful shown in table cells
## Results: Research Resources

<table>
<thead>
<tr>
<th></th>
<th>Professionals</th>
<th>Publics</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 Models</td>
<td>92</td>
<td>N/A</td>
</tr>
<tr>
<td>24 Animal care</td>
<td>42</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Percent successful shown in table cells
# Results: Warm Down/General

<table>
<thead>
<tr>
<th></th>
<th>Professionals</th>
<th>Publics</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 Phone</td>
<td>70</td>
<td>72</td>
</tr>
<tr>
<td>26 Couldn’t find</td>
<td>89</td>
<td>100</td>
</tr>
<tr>
<td>27 Health org</td>
<td>56</td>
<td>43</td>
</tr>
<tr>
<td>28 Business</td>
<td>67</td>
<td>75</td>
</tr>
<tr>
<td>29 Job</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Percent successful shown in table cells
Recommendations
Home Page: Site Identity

Users knew where they were; no slogans or taglines required.
Users read WHAT’S NEW, but did not pursue most links.

Recommendations to:
1. Shorten headlines
2. Ensure content has broad appeal
3. Either move What’s New to the right-most column or design the links to look more important (rather than blue underlined)
 Users recognized primary navigation immediately.
Some users missed the links within the paragraph at the top of this page.

Suggest add category such as Comprehensive Resources to match Publications, etc.

Also recommend different designs for clickable versus non-clickable items (these resemble clickables on Home Page).

Some users expected these links to load new web pages, given location on page.
Users had success with the Index.

Recommend allow users option to select any letter of alphabet from subsequent pages.
Users said they had to “start over” for some of the Index subjects when they landed on the Institutes’ home pages.
Users said having the option to use the Index or this list of browsable health topics from MedlinePlus would be even better.

Recommend more clickable-looking Index letters for real page.
Users commented that this second page seemed designed more for professionals.
Ensure link names are in everyday language.
Health Information: Clinical Trials

Users were asked to find studies with patients without the test moderators using the phrase “clinical trial.”

A number of users missed Clinical Trials. (Some looked in other sections too.)

Perhaps an everyday language link name would help such as Studies with Patients/Volunteers.
Grants & Funding

Researchers who did not know NIH very well got confused among these options (see next slides).

CRISP is buried slightly within a paragraph.

Only those who know NIH knew it was the database of funded research.
Grants Page

For example, Grants page has Contracts information.
CRISP

CRISP needs a plainer language link name.

As mentioned earlier, only those in the know found it.
Training

For users unfamiliar with extramural and intramural, at least in this context, this page was confusing.

Several users hit the Back button when looking for training funding believing they had come to the wrong place.
Users were not sure where to start on this page.

It assumes existing knowledge of the Guide.
Users had to read the long list of press releases scanning for keywords.

Consider linking important keywords at beginning of link.

Consider ways to break up long lists (even if just intentional line spaces every x line).
Users wanted to search by keyword too.
Home Page: Scientific Resources

Many users went to Scientific Resources looking for research results, and had trouble.

The shortened “tab” version of Science reinforced this.

Recommend consider link name Resources for Scientists.
Scientific Resources

Links on this page need to be organized and grouped so that long scrolling list of detailed links is not overwhelming.
Institutes

Great page for experienced users but others played, “Guess the Institute” – an Institute locator by topic (such as Health Info. Prototype Page 2) might help.
Mixing within-page jump links with links that navigate to other pages/sections can confuse users. Plus Home Page says “find employees” under About…
Users who made it past the Home Page looking for science education in About, sometimes got tripped up on this page.

Users may not have expected science education under this category.

Even use of word “scientific” led some users to pause.
Public versus community sounded like synonyms to outsiders.
Users were uncertain what they could do at this Doing Business with NIH sub-site.
Users had to read the long list of Q&As scanning for keywords.

Consider linking important keywords at beginning of link.

Consider ways to break up long lists (even if just intentional line spaces every x line).

Also darker link color would help readability.
Users might miss helpful options on this page because primary navigation appears to be in two places.

Watch text and background contrast; this is harder to read.
Users were pleased at the comprehensiveness of directions.
Users tended not to use this link, understandably given its name.
Users tended not to use this link, understandably given they were English-speaking.

Several commented they were pleased to see it.
Most users availed themselves of the Search text box in the upper right-hand corner of the Home Page, instead of using the link within the body of the page.
Users scanned past hit results that began with MEDLINEplus.

When probed later, some assumed it was a health telephone hotline.

In general, users relied on the first few words...
Users did not avail themselves of the Advanced Search link on the Home Page.

In fairness though, we steered users away from using the Search too much, so we could test the link names on the Home Page (and given inherent limitations of most Web searches).
Featured Site

Some users missed the Featured Site on the Home Page.

This could have been due to its resemblance to an ad.
Users had no trouble finding the HHS link here or on the About page.

However, introducing new links at the bottom of the page interspersed with repeated navigation links often leads to users missing options.
Consider link to toll-free numbers list from here too.

Also, link says Contact Us but page name is different.
Getting Back Home

Most users missed this link.

Recommend develop a Home tab or include near logo in upper left.
Next Generation Designs

Given the number of important links and/or categories of links on secondary pages (defined as primary links off the Home Page), NIH may want to consider a future redesign with more navigational links on the Home Page to strive for a broader, shallower design.
Thank you.
cathy@humanfactors.com
kath@humanfactors.com
drewfalk@humanfactors.com
NIH.gov Information for Employees
Web Site Usability Testing

February 8, 2002 version

Prepared for:
Dennis Rodrigues, Chief, On-Line Information Branch
Kristin Mead, On-Line Information Branch

Prepared by:
Catherine Gaddy
Human Factors International
1-800-242-4480
www.humanfactors.com
Overview

• Method
• Results
• Recommendations
  – Site strategy
  – Navigation and information architecture
  – Specific tasks and pages
Method
User-Centered Design

- Site Strategy
- Knowing Users and Their Goals
- Navigation Design
- Information Architecture
- Page Types
  - Interaction Design
    - Web Controls and Interaction
    - Error Handling and Feedback
  - Content Design
    - Editorial Style
  - Presentation Design
    - Page Layout
      - Color Management
      - Functional Graphics
      - Typographical Elements

Ongoing Assessments
- Usability Testing
- Internationalization
- Accessibility
- Standardization
Purpose of Usability Testing

Gather data to answer the question:

Can real users accomplish real tasks on the site?
Why Bother with Usability?

• **Time**: Increase speed, efficiency, and decrease workload
• **Quality**: Increase accuracy, reduce errors, improve quality
• **Satisfaction**: Increase users’ satisfaction, reduce frustrations
• **Training**: Decrease time to learn or training required
How Many Participants are Needed?

The most striking truth of the curve is that zero users give zero insights.
Participants

- 24 NIH employees scheduled from among staff who responded to a call for participants representing:
  - Diverse institutes/centers
  - Diverse levels within the organization
  - Diverse disciplines and job positions, including directors’ offices, extramural, intramural
  - Range of experience at NIH
- 20 showed up over a three-day period
Representative Questions Related to:

• Use of intranets
• Sources of employee information
• Use of Employees section of public site
• Sample usability testing tasks asked of everyone
• Participant-specified tasks too
• Knowledge of portals and personalization
• Suggestions for information or service needs not currently being met

See also detailed interview/test moderator’s guide
Procedure

• Sessions took about a half hour per person
• Participants who were on their own time were paid a “thank-you” fee for their time
Usability Testing/Interview Setup

Participants worked in a private NIH office

An observer watched from behind the participant

The test moderator sat nearby
Results

See also summary results report
## Results: Use of Intranets

<table>
<thead>
<tr>
<th>Use them at Institute/Center level:</th>
<th>80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of those who use it:</td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>12.5%</td>
</tr>
<tr>
<td>Weekly</td>
<td>31.0%</td>
</tr>
<tr>
<td>Monthly</td>
<td>37.5%</td>
</tr>
<tr>
<td>Less frequently than monthly</td>
<td>19.0%</td>
</tr>
</tbody>
</table>
# Results: Use of Employees Section

<table>
<thead>
<tr>
<th>Use it:</th>
<th>90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of those who use it:</td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>39%</td>
</tr>
<tr>
<td>Weekly</td>
<td>28%</td>
</tr>
<tr>
<td>Monthly</td>
<td>22%</td>
</tr>
<tr>
<td>Less frequently than monthly</td>
<td>11%</td>
</tr>
</tbody>
</table>
## Results: Sample Tasks

<table>
<thead>
<tr>
<th>Task</th>
<th>Percent at least partially successful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email address</td>
<td>95%</td>
</tr>
<tr>
<td>Long term care insurance</td>
<td>68%</td>
</tr>
<tr>
<td>Temporary parking permit</td>
<td>74%</td>
</tr>
<tr>
<td>Emergency numbers</td>
<td>95%</td>
</tr>
<tr>
<td>Job in Office of Director</td>
<td>89%</td>
</tr>
<tr>
<td>New campus buildings</td>
<td>89%</td>
</tr>
</tbody>
</table>
Recommendations: Site Strategy
Employee Link on Public Site

Public site has so much to offer and is growing.

Eventually employee-only information should be located elsewhere.

Public should not be bothered with insider information intermingled with search results that are meant for them.
Staff-only Access

Staff-only information is likely to grow
This part of the public site is growing into being the trans-NIH Intranet.

It is the one place employees come to search across the entire organization.
Intranet versus Internet
Differences

• Users differ
• Tasks differ
• Type of information differs
• Amount of information differs
• Bandwidth and cross-platform needs differ

See http://www.useit.com/alertbox/9709b.html for details
What do Others Do on Intranets?

On Home page:

• **Directory hierarchy** that structures all content on the intranet

• **Search field** connecting to a search engine that indexes all pages on the intranet

• **News** about the organization and employee interests, coupled with link to an **archive**

See http://www.useit.com/alertbox/990404.html for details
What do Others Do? (Cont.)

Best Intranets of 2001 (DOTNet was in Top 10 internationally):

• Emphasize iterative design and standardized navigation

• Feature collaboration tools and content management systems

“On average, companies saw intranet use increase by 98% following their winning usability redesigns.”

See http://www.useit.com/alertbox/20011125.html for details
Institute/Center Intranets

Trans-NIH Intranet looks across the organization, and can be linked to from institute/center intranets as they grow.
Portal Approach

33% knew what a portal was
25% had personalized at least one
44% said they might try my.nih.gov
remainder said they did not have the time
Other Employee Information

Users started at the Information for Employees page when they did not know where in NIH to go.

If they knew it was a computer issue and they had been at NIH a little while, they would go to CIT first.
Recommendations: Navigation and Information Architecture
Search Engine

Given the importance of this resource, the limitations of its search engine should be addressed.

Also it is not clear whether staff understand this search is not the same as on nih.gov home page.
Technically in the tab metaphor, every page should be contained within a selected tab — but it is not here…

All this site-wide navigation confused a few users; may want to delete repeated links

This is not employee health benefits
Browse Topics

Intentional blank lines can speed scanning

Repeat alphabet on each letter’s page, so users don’t have to click back
Alphabetical Links with No Content Should Look Unclickable

Results for letter X

Sorry!

There are currently no topics beginning with that letter.

back to: Information for Employees
NIH’s Prototype for New Design

86% said categories would help
Recommendations:
Specific Tasks and Pages
Finding People

Great feature
Any need for link too?
Finding People (Cont.)

Make it easier to update directory entries; clicking on NIH Information is not intuitive

Coordinate with email Outlook directories, if practical
Finding People (Cont.)

Can we minimize techno-speak?

Might encourage more users to update, if the field labels were more everyday English.
Finding Human Resources

Health insurance link goes off site to OPM
Should there be an NIH HR page first?

Users could not find “benefits” such as daycare center, tuition reimbursement
Orienting New Employees

• Recent employees longed for an on-line orientation resource (centralized or otherwise) to follow up on NIH orientation and to provide institute/center specifics
Writing for Web Usability: Parking Permit Example

This page is harder to scan because it is in paragraphs.

Blue text is harder to read than black or dark blue (should reserve medium blue for “clickables” anyway).
## Writing for Web Usability

<table>
<thead>
<tr>
<th>Site Version</th>
<th>Sample Paragraph</th>
<th>Usability Improvement (relative to control condition)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Promotional writing (control condition)</strong> using the “marketese” found on</td>
<td>Nebraska is filled with internationally recognized attractions that draw large crowds of people every year, without fail. In 1996, some of the most popular places were Fort Robinson State Park (355,000 visitors), Scotts Bluff National Monument (152,166), Arbor Lodge State Historical Park &amp; Museum (100,000), Carhenge (86,598), Stuhr Museum of the Prairie Pioneer (60,002), and Buffalo Bill Ranch State Historical Park (28,446).</td>
<td>0% (by definition)</td>
</tr>
<tr>
<td>many commercial websites.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Concise text</strong> with about half the word count as the control condition.</td>
<td>In 1996, six of the best-attended attractions in Nebraska were Fort Robinson State Park, Scotts Bluff National Monument, Arbor Lodge State Historical Park &amp; Museum, Carhenge, Stuhr Museum of the Prairie Pioneer, and Buffalo Bill Ranch State Historical Park.</td>
<td>58%</td>
</tr>
<tr>
<td><strong>Scannable layout</strong> using the same text as the control condition in a</td>
<td>Nebraska is filled with internationally recognized attractions that draw large crowds of people every year, without fail. In 1996, some of the most popular places were:</td>
<td></td>
</tr>
<tr>
<td>layout that facilitated scanning.</td>
<td>- Fort Robinson State Park (355,000 visitors)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Scotts Bluff National Monument (152,166)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Arbor Lodge State Historical Park &amp; Museum (100,000)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Carhenge (86,598)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Stuhr Museum of the Prairie Pioneer (60,002)</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>- Buffalo Bill Ranch State Historical Park (28,446).</td>
<td></td>
</tr>
<tr>
<td><strong>Objective language</strong> using neutral rather than subjective, boastful, or</td>
<td>Nebraska has several attractions. In 1996, some of the most-visited places were Fort Robinson State Park (355,000 visitors), Scotts Bluff National Monument (152,166), Arbor Lodge State Historical Park &amp; Museum (100,000), Carhenge (86,598), Stuhr Museum of the Prairie Pioneer (60,002), and Buffalo Bill Ranch State Historical Park (28,446).</td>
<td>27%</td>
</tr>
<tr>
<td>exaggerated language (otherwise the same as the control condition).</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Combined version</strong> using all three improvements in writing style together:</td>
<td>In 1996, six of the most-visited places in Nebraska were:</td>
<td></td>
</tr>
<tr>
<td>concise, scannable, and objective.</td>
<td>- Fort Robinson State Park</td>
<td>124%</td>
</tr>
<tr>
<td></td>
<td>- Scotts Bluff National Monument</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Arbor Lodge State Historical Park &amp; Museum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Carhenge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Stuhr Museum of the Prairie Pioneer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Buffalo Bill Ranch State Historical Park</td>
<td></td>
</tr>
</tbody>
</table>

From: http://www.useit.com/alertbox/9710a.html
Users missed link because:

a) Starts with ORS and not “E”
b) Small text
or more likely
c) Focus is on main body of page
(see next slide too)
Where is Major Section/Page Navigation Expected?

Users expect major nav. here

If space gets used for selected links or news, the expectation may wear off

Especially given tendency to focus on main body of page deeper in site

Figure 2 shows that both groups generally expected internal links to be located on the left side of a web page.

Figure 2. Expected location for links internal to site

From: http://psychology.wichita.edu/surl/usabilitynews/3W/web_object.htm
Animation is Distracting:

Emergency Example

---

![Emergency Phone Numbers](image)

<table>
<thead>
<tr>
<th>EMERGENCIES</th>
<th>On-Campus</th>
<th>Off-Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE / AMBULANCE</td>
<td>911</td>
<td>9-911</td>
</tr>
<tr>
<td>CHEMICAL / BIOLOGICAL / RADILOGICAL</td>
<td>911</td>
<td>9-911</td>
</tr>
<tr>
<td>POLICE</td>
<td>911</td>
<td>9-911</td>
</tr>
<tr>
<td>MAINTENANCE</td>
<td>108</td>
<td>6-1966</td>
</tr>
<tr>
<td>TR/IVD</td>
<td>911</td>
<td>9-911</td>
</tr>
<tr>
<td>BUILDING 10 - CRITICAL MEDICAL SITUATIONS</td>
<td>111</td>
<td>-----</td>
</tr>
</tbody>
</table>

---

**EMERGENCY PROCEDURES**

Return to home page for:

- EMB
- ORS
- NIH

This page last updated October 3, 2000

For information about this WWW site, please contact EMB Webmaster
Many users went back to nih.gov

One user was pleasantly surprised to find jobs under “J” – she said it seemed too easy 😊
Date of Content?: Construction Example

One of many examples on site for which date of content was not provided

Also, page has cool features but many broken links
Old pages should be deleted or archived as appropriate, so they are not returned by search engines.
A few participants suggested a less wordy approach to news such as that on the public home page.
Forms

Users appreciate being able to get forms online.

All forms are not available in all formats.

Seems awkward to have to look within formats for a specific form.

For example, one purchase req. form is not in Word or .pdf but is in FileMaker.
Next Generation Designs

• Separate information for employees from that for general public, at least in public search results

• Consider private trans-NIH intranet so public not frustrated, and staff can be private when appropriate
Thank you

cathy@humanfactors.com