Joanna Russell Bliss

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ASSIGNMENT ONE

WEBSITE ANALYSIS

ORGANIZATIONAL SYSTEMS

ORGANIZATIONAL SCHEME

The website for the American Society for Information Science & Technology, ASIST, is an informational website that uses ambiguous organization for its scheme. ASIST most likely chose to do this because an exact organization scheme – a list of pages organized in alphabetical, chronological or geographical order – does not make sense when, as Rosenfeld et al. (2015) note, "we don't always know what we're looking for," (Ambiguous Organization Schemes, para. 3).

Their top-level categories are task-oriented, predicting that users are coming to the ASIST website to do specific functions (Rosenfeld et al., 2015). The site organization directs users to learn about the organization and the benefits of joining ("About," "Membership"), discover what types of events and programs they organize ("Programs & Services," "Meetings & Events") and read their scholarly publications ("Publications").

ORGANIZATIONAL STRUCTURE

Related to the ambiguous organization, the site uses a hierarchical organization, allowing users to imagine what might be organized into each top-level category, similar to the examples of family trees and biological classification used by Rosenfeld et al. (2015, The Hierarchy: A Top-Down Approach, para. 1). For example, if one wanted to read a publication from ASIST, it's easy to imagine that it would be found in the "Publications" section, whether it's a report from a meeting or one of their professional journals. If users don't know much about the organization, it makes sense to click on the "About" category, where they can learn about its history, the field of information science, the latest news from the organization, and more.

LABELING SYSTEMS

LABELS

The home page has a lot going on, both in the use of space and the variety of labels. It uses both textual and iconic labels to convey the content available on the site. Navigation choices are front and center, both representing the hierarchy of the site and the most popular destinations; see the image with notations on page 2 for the types of labels on the home page.

Unfortunately, the labels and navigation used on the site seem inconsistent. For example, the icon for "Jobs" on the home page points to a page on careers in information science, which then links to a job listing site. The contextual label in the top-level navigation page for the careers page is "Job Search,"
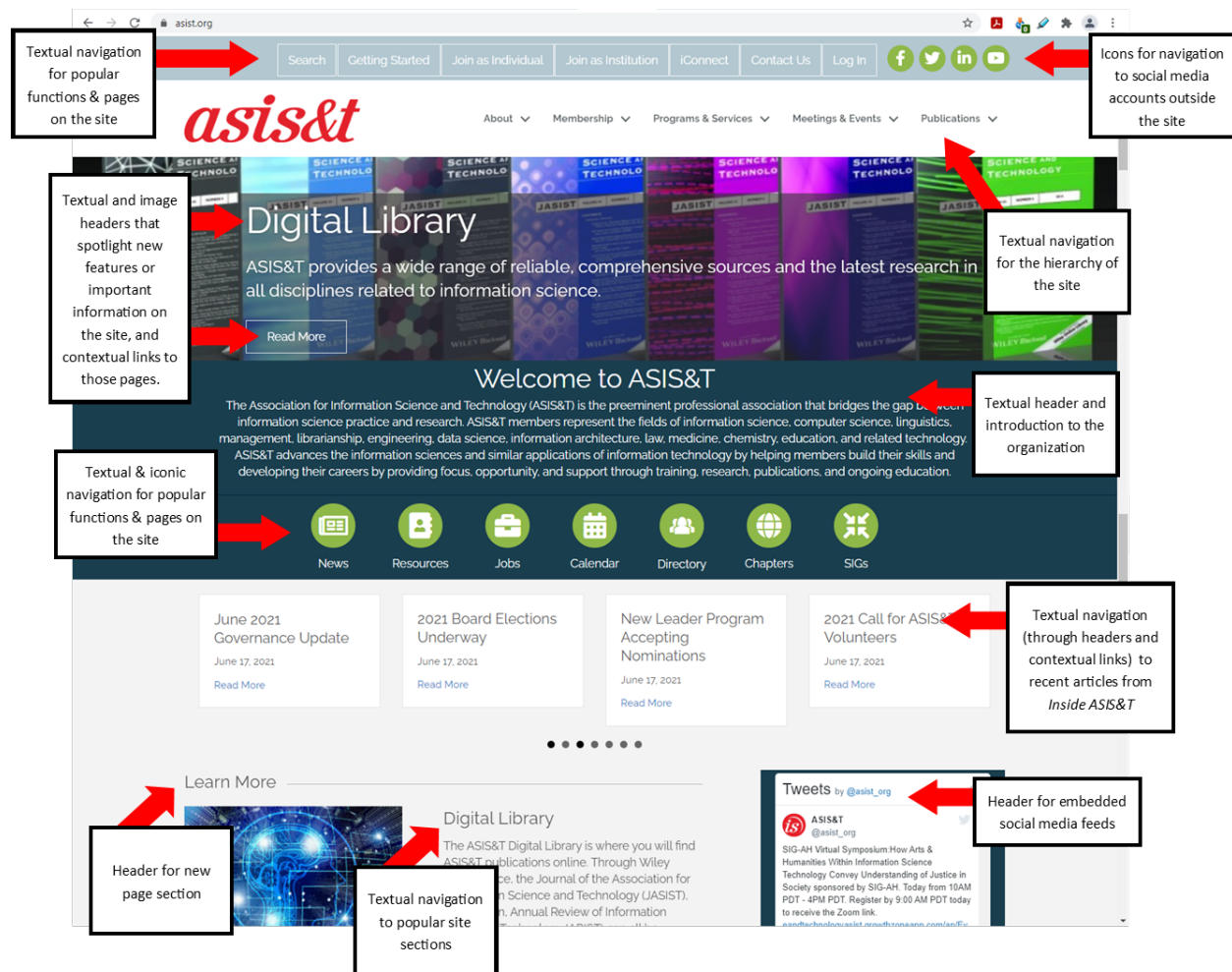
FIGURE 1: SCREEN GRAB OF HOME PAGE AT WWW.ASIST.COM. TEXT BOXES NOTE TYPES OF LABELS FOUND ON THE HOME PAGE: BOTH TEXTUAL AND ICONIC, AS WELL AS FOR NAVIGATION, HEADERS, AND CONTEXTUAL LINKS.

with a child link to the job listing site labeled as "Job Listings." So there are three separate labels that refer to jobs, including a label that points to a page with the header "Careers in Information Science" – a page also linked to from the "About" section with the header text for the link.

This happens in other places as well. Two labels that point to the member directory have different text: The icon is labeled "Directory" and the contextual link in the top-level navigation says, "Find a member." A page titled "Frequently Asked Questions" does have one home page link that is the same text, but the "Getting Started" link at the top of the page links to the same page.

The label design across the page is also inconsistent, making it difficult to understand the page's organization and what is most important on the page. Figure 1 above is a screengrab of the home page; upon arrival, users see three different label structures. These areas seem to reflect popular functions on the site ("Search," "Getting Started," "Join Individual," etc.), traditional site organization with drop-down menus ("About," "Membership," "Programs & Services," etc.), and icons representing (again) popular functions and pages on the site ("News," "Resources," "Jobs," "Calendar," etc.)

The next section has no header at all, just small text boxes that appear to highlight internal page content. Without a label noting where the content is from, these appear to be recent news releases. But upon clicking on the links, users learn they are all individual stories from the latest *Inside ASIS&T* newsletter instead. These are separate articles from what is listed on the ASIS&T News page, linked to from the "News" icon on the home page, which is not listed elsewhere on the home page in a footer or from the Publications menu despite its URL pointing to that location (/publications/asist-news/).

The page continues with a header that encourages users to "Learn More" about specific areas of the website, like the Digital Library or an online members-only community, iConnect, and other headers that are linked to the content below. The lack of a header mid-page is distracting (as is the embedded dark box for the organization's Twitter feed, with the label "[Tweets by @asist_org](https://twitter.com/asist_org)"), and the various styles of labels downright confusing.

AUDIENCE

This website seems to have multiple audiences: People who are members of the organization, people (or institutions) who are considering joining the organization, and people who want to learn more about information science. It seems like the designers did not ask themselves basic questions about these various users, like which of those audiences is most important for the organization? How many users come to the site needing seven different pages on the history of the organization? Where can we refine the number of pages and reconfigure its organization?

The labeling and navigation systems on the website are confusing, giving the appearance of design by committee where several functions were demanded by various parties and ended up remaining in the design. While information scientists would be able to find information on the website, the navigation doesn't fulfill one of the main reasons for a website, according to Krug (2014), as it doesn't give "confidence in the people who built it," (p. 63). Its street signs and breadcrumbs, to use Krug's metaphors (chapter 6), lead the user in various directions that may or may not be fruitful, which may be one of the reasons the search box was in such a noticeable location on the site's navigation bar – it might be the quickest way to find information over trying to navigate using the various tools on the home page.

NAVIGATION SYSTEMS

GLOBAL, LOCAL & CONTEXTUAL

Rosenfeld et al. (2015) explain the differences between global, local and contextual navigations as telling the user, "Where am I?", "What's nearby?" and "What's related to what's here?" (Types of Navigation Systems, fig. 8-1). The ASIS&T website has two global navigation bars, seen in Figure 1 above on page 2: A light blue bar with textual navigation buttons to popular pages on the site, and a more traditional menu featured in white below the light blue bar, with pull-down menus to navigate the full website. Unfortunately, some of the pages featured in the light blue bar are not listed elsewhere in the global navigation: The pages for joining, whether as an individual or institution, are featured in a top navigation but not in the drop-down menus for membership, which is surprising, given the importance of those pages to the organization.

There are no local navigation menus that appear when navigating subareas of the website; the site designers chose instead to rely on contextual navigation. For example, if the user clicks on one of the pages in the "Meetings & Events" section, like the page for the "ASIS&T Annual Meeting," there are no secondary navigation menus that appear for that section. The user has to use the pull-down menus in the global navigation menu to go from page to page within the section, or use the contextual links at the bottom of the page to learn about ASIS&T chapter events in Pittsburgh and Salt Lake City.

Such contextual links are used throughout the site but not consistently. The membership pages that advertise the benefits of membership have buttons allowing users to join from that page. But the pages touting the history of the organization, like "What Is Information Science?", do not link to other pages in the section, leaving the user to determine where else to go on the site instead of suggesting related pages on the history of and pioneers in information science.

SUPPLEMENTAL & ADVANCED

There is no page for supplemental navigation – no site map or index in any of the menus, nor one found by searching for either of those terms via the search box. The site does have a guide in one section, however: The "Frequently Asked Questions" page links to several tutorials on how to join the organization, how to renew a membership, and more. The page also advertises logging in for video tutorials on these topics, but that would not be helpful for users who are not yet members or whose memberships have expired.

It appears that any advanced navigation, defined by Rosenfeld et al. (2015) as personalization and customization (Advanced Navigation Approaches, para. 2), is only available to members of the organization. For example, the menus for the iConnect area for members imply that members can customize the experience by designating "My Communities," seen in the screen grab below in Figure 2. But clicking on that option forces users to log in, so non-members cannot explore that experience. Users can sign up for job search email alerts on the job listing website, and these can be customized by keyword, job title, or location, but the site itself does not personalize what is shown to the user on return visits.
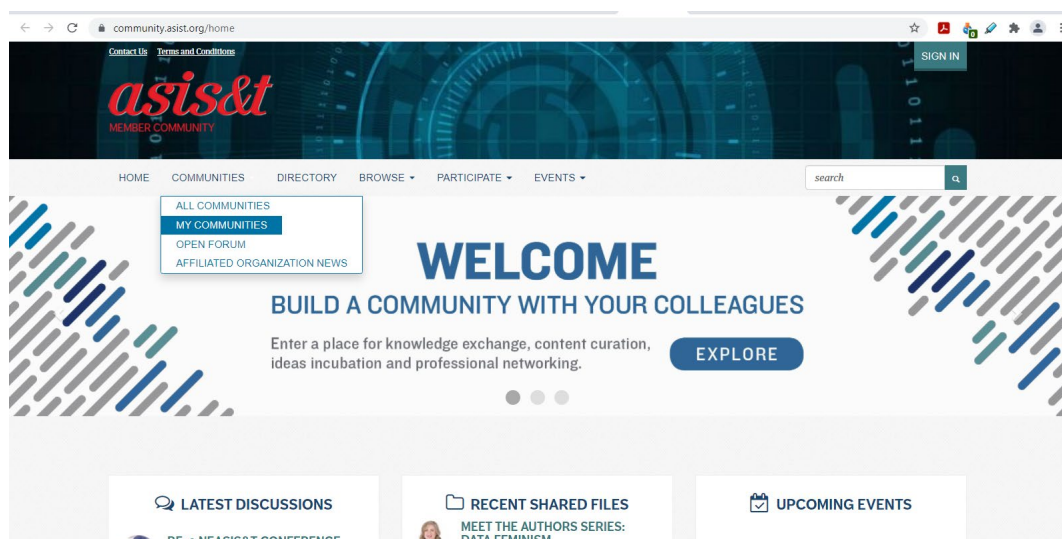
FIGURE 2: SCREEN GRAB OF LANDING PAGE AT iCONNECT FEATURE FOR ASIS&T MEMBERS.
IF THE USER CLICKS ON "MY COMMUNITIES," USERS ARE DIRECTED TO LOG IN TO THEIR ACCOUNT.
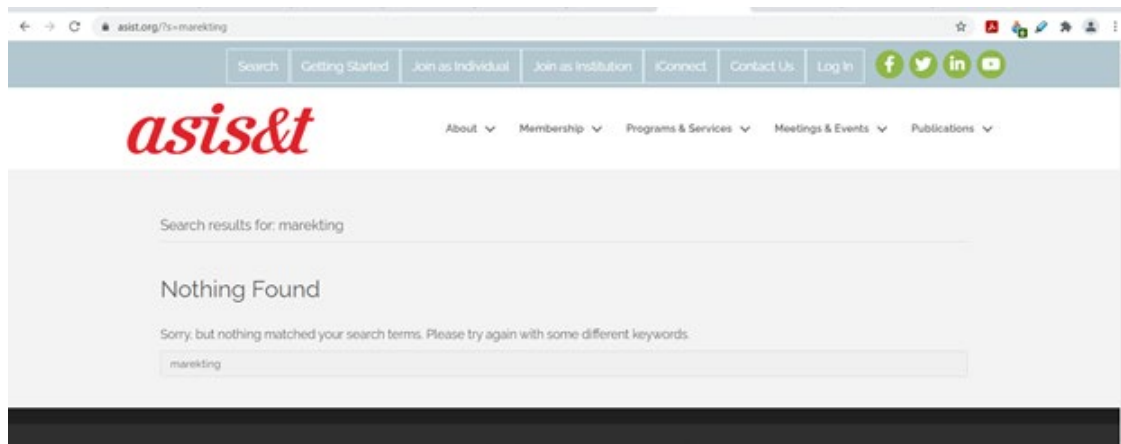
FIGURE 3: SCREEN GRAB FROM EMPTY SEARCH RESULT. THE SITE PROMPTS THE USER TO TRY DIFFERENT KEYWORDS.

SEARCH SYSTEMS

When entering Boolean searches into the search box, the search results do not appear to reflect the Boolean phrase. For example, a search for ["information science" not "technology"] brings up several pages that include the word "technology." The search results also do not highlight the words within the search, making it difficult to understand how the search algorithm is giving these results – why exactly are these results being shown for this query?

There do not appear to be any search zones for the website, as there is no advanced search allowing users to limit searches of the website to types of files, subjects, etc. The only search function is the "Search" button at the top of the page, which allows for a simple textual search without further options. A search from this point for an "advanced search" gave no results within the site, nor does an advanced search option appear when opening the search box, which would be the natural placement for such an option.

The site doesn't offer spell check or phonetic tools, but if a user creates a search that presents zero results, the site does prompt the user to revise the search with different keywords; see Figure 3 above for an example. It also does not seem to remove stop words from queries, as a search for "why should I join asist" gives 10 results with none related to membership benefits, but a search for the exact page name "why join" brings up the "Why Join?" page as its first result. The results do not seem to take stemming into account either, as a search for "programming" does not bring up information about upcoming or past programs, only pages that include "programming" somewhere on the page.

The search algorithm does not appear to support natural language processing, or at least prioritizing what may be relevant to the natural language query. Entering a search for "how do I join asist" gives six search results unrelated to membership before giving three frequently asked questions, none of which are related to membership or joining the organization, even though one of the frequently asked questions on the website is "How Do I Join ASIS&T?" This also shows that there is not a thesaurus for the search engine, allowing the search to recognize "asist" as representative of "ASIS&T." When the ampersand is added and the query becomes "how do I join asis&t", the related pages appear in the search results.

EXAMPLES OF QUERIES

PRESENTATION OF SEARCH RESULTS
Search results are sometimes distorted, with large images eating up the screen. Users are often forced to scroll down to determine whether the list includes the necessary pages. Search results also do not highlight terms or words from the search query, making it difficult to determine how the pages are ranked in relevance or how they relate to the query.

FIGURE 4: SCREEN GRAB OF SEARCH RESULTS FOR "HOW DO I JOIN ASIST?" FIRST SEARCH RESULT DISTORTS THE TEXT FOR THE RESULT WITH A LARGE IMAGE, AND NONE OF THE RESULTS SHOW HOW THEY ARE RELATED TO THE QUERY ENTERED.

DISPLAY OF SEARCH RESULTS

Search results number 10 per page, but the site does not label the results as such or give a total number of pages that have been returned for that query. The only clue that there are further search results for the query is the link at the bottom of the page reading, "Older posts."

FIGURE 5: SCREEN GRAB OF SEARCH RESULTS FOR "INFORMATION SCIENCE". THERE ARE 10 RESULTS ON THE FIRST PAGE, AND MORE FOLLOWING, BUT THE TOTAL NUMBER OF RESULTS IS UNCLEAR.

As shown above, the site does not show how the results are ranked or ordered, and users are not given the option to re-sort by date of publication or rank by relevance, the two suggested methods by Rosenfeld et al. (2015, Listing Results, para. 2-4). The below query, another popular question about membership in an organization – cost – gives similar results to the query, "how do i join assist", including one that is slightly more relevant (How Do I Join a Chapter?) but also some that clearly would not be (applications for student travel awards in 2012, 2013 and 2013).

FIGURE 6: SCREEN GRAB OF FIRST 10 SEARCH RESULTS FOR THE QUERY "COST TO JOIN ASIST".

SAVING AND SHARING RESULTS

As seen below in Figure 7 and elsewhere in Figures 4, 5 and 6 (on pages 6, 7 and 8, respectively), there are no icons or textual prompts to save, share or print the search results at the top or bottom of the results list. The user would need to print directly from the website and hope that the formatting allows the user to see the results later, without any options to export them with the URLs separate from the page names.

FIGURE 7: SCREEN GRAB OF FIRST 10 SEARCH RESULTS FOR THE QUERY "INSTITUTIONAL MEMBERSHIP".

QUERY WITH NO RESULTS

As seen below in Figure 8 and also in Figure 3 (page 5), a null result gives the following message: "Sorry, but nothing matched your search terms. Please try again with some different keywords." A data box follows for the user to enter different search terms, but without any suggested synonyms or spellings.
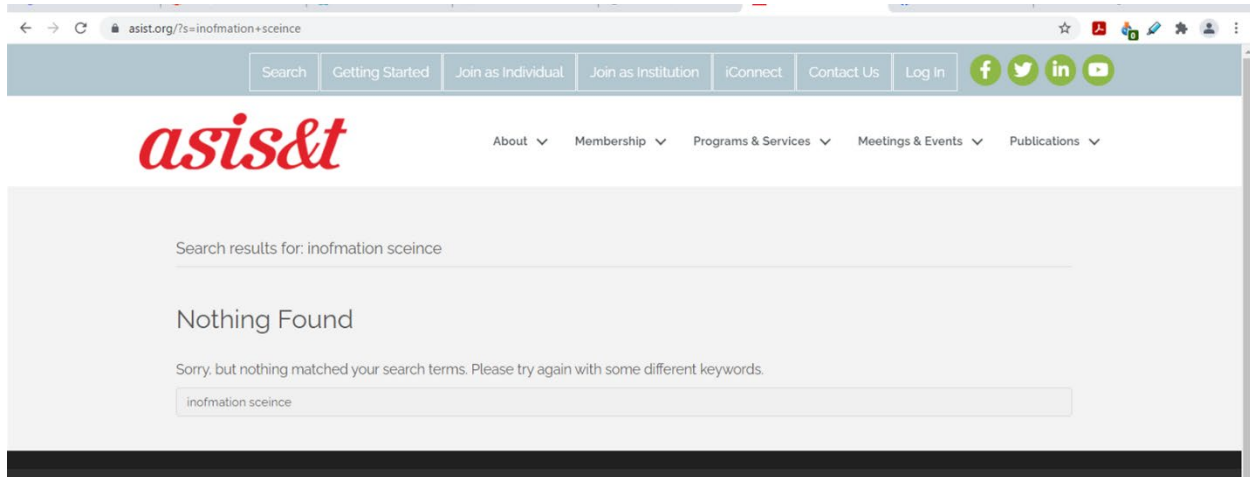
FIGURE 8: SCREEN GRAB OF NULL SEARCH RESULT FOR "INOFMATION SCEINCE".

REVISING A SEARCH

Unfortunately, the null result screen as seen below in Figure 9 and also in Figures 3 and 8 (page 5 and above) is the only search result screen that allows users to revise their query directly on the page or gives hints as to how to revise the search. Doing a search that gives results unrelated to the actual query will not give the user a way to revise the search or any suggestions on how to do so. The search must be redone by clicking again on the "Search" button at the top of the page and starting over.
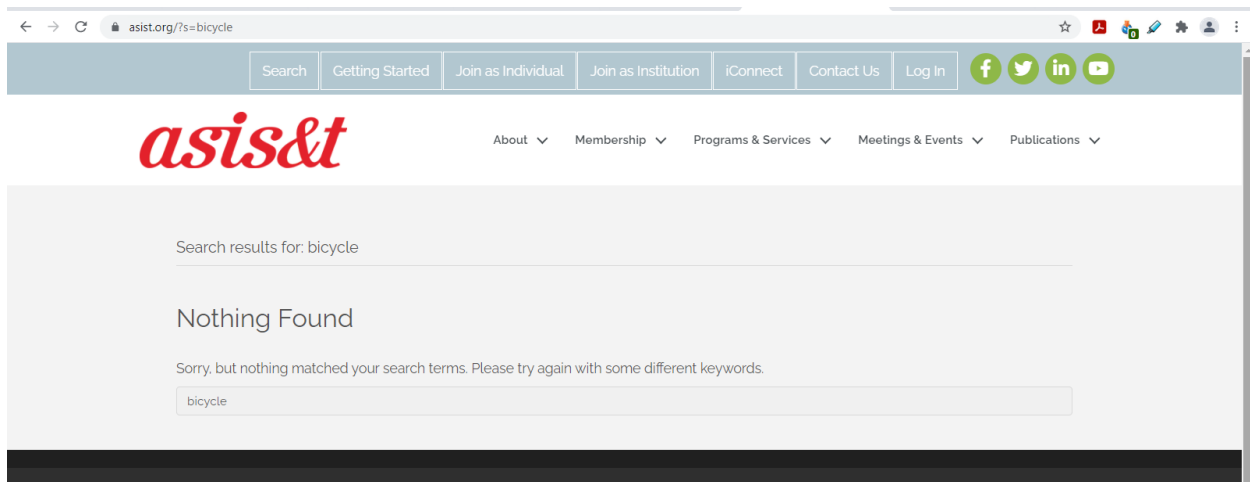
FIGURE 9: SCREEN GRAB OF NULL SEARCH RESULT FOR "BICYCLE".

GRADING THE WEBSITE

ANATOMY OF THE WEBSITE

ORGANIZATIONAL SYSTEMS   *19/20*

Overall, the site is well organized. Using an ambiguous organization scheme makes sense for an informational website about a professional organization, and using primarily task-oriented categories for organization also works well.

The hierarchical organizational structure also helps users make a mental model of the organization's website, as well as what they do and how they do it. But leaving important pages like how to join out of the hierarchy might make it difficult to find for users who go directly to the pull-down menus in the white section and skip over the links to the pages to join in the light blue navigation bar. It could also affect how searches find the organization's information on how to join in searches outside the website.

LABELING SYSTEMS   *10/20*

The labeling system used throughout the website but particularly on the home page is confusing. Labels for navigation have three different styles (light blue bar, white menu, icons in navy space) with little to convey which of the three is most important; see Figure 1 on page 2 for a screen grab of these labels. These labels for textual navigation are not always consistent with the page on which one is landing, either. While part of this is due to the fact that there are often several links pointing to one page, it doesn't stand to reason that the labels cannot be consistent across menus and textual links.

The home page is also inconsistent when it comes to labels for areas on the same page. Some sections have headers, others do not. Some have icons that point to the same page as other textual links on the same page. Links are duplicated in multiple points on the same page, which can confuse the user and diminish the site's reason for existence – conveying information about the organization.

The site also doesn't seem to acknowledge up front that there are multiple audiences visiting the site, including members and non-members of the organization, as well as people who simply want to learn more about the organization and its field of study. Each group, particularly those new to IA, would have different needs for and levels of knowledge about the organization, but the site labels would not make it easy for novices to navigate.

NAVIGATION SYSTEMS   *14/20*

The global navigation systems, also mentioned in the labeling grade above, are contradictory and confusing with two featured menus one above the other. It is particularly strange that not all of the pages on the site are within the hierarchy of the main navigation system, featured throughout the site in the white bar at the top of the page. The lack of local navigation also slows down people browsing the site to learn more about the organization, forcing them to return to the main global navigation menus rather than always suggesting related material through contextual links or local navigation menus.

For a website of this size, the lack of supplemental or advanced navigation are less concerning. While a sitemap or index would be helpful, there are not enough pages on the site to warrant them, particularly an index. And personalization or customization for non-members aren't a necessary feature to help users navigate the site.

SEARCH SYSTEMS   *10/20*

Search results are confusing and often unrelated to the query entered. The lack of transparency of how the search results have been given, like highlighting query words in the search results or allowing the user to re-sort results by publication date or relevancy, means that search results often seem irrelevant. The lack of options when searching, like offering an advanced search, or search zones to limit information to what's available for members or non-members, are also frustrating, as well as the lack of feedback on how to improve search results with suggested keywords or related topics unless there are zero results for the query.

USABILITY   *15/20*

Despite the problems with consistent labels and navigation, and particularly the search function, the site isn't horrible to use. Most users, particularly those that are members, would learn how to use the site with minimal effort. They would bookmark the important pages, like the calendar for upcoming events or the page for their particular chapter, and they would be able to find their relevant information without too much trouble. But the designers here could learn from several of the directives to improve usability and increase the goodwill of their users as noted by Krug (2014): "Save me steps wherever you can,… Provide me with creature comforts like printer-friendly pages,… [and] Make it easy to recover from errors," (pp. 170-171).

ELEMENTS	GRADE
ORGANIZATIONAL SYSTEMS	19/20
LABELING SYSTEMS	10/20
NAVIGATION SYSTEMS	14/20
SEARCH SYSTEMS	10/20
USABILITY	15/20
TOTAL GRADE	**68/100**

TOTAL GRADE   68/100

The biggest challenge with this website's design is that it really makes users work to find information. Rather than following Krug (2014)'s directive to be "self-evident. Obvious. Self-explanatory," (p. 11), it forces users to hunt around for information like on a scavenger hunt, particularly when trying to go from one informational page to another. Given the organization that the website represents, it's particularly confusing that the website is not more straightforward and easier to navigate.

REFERENCES

Krug, S. (2014). *Don't make me think, revisited: A common sense approach to web and mobile usability* (3rd ed.). New Riders.

Rosenfeld, L., Morville, P., & Arango, J. (2015). *Information architecture: For the web and beyond* (4th ed.). O'Reilly Media, Inc.