

Report of the Navigation Sub-committee of the UW Web Advisory Committee

February 2008

Members

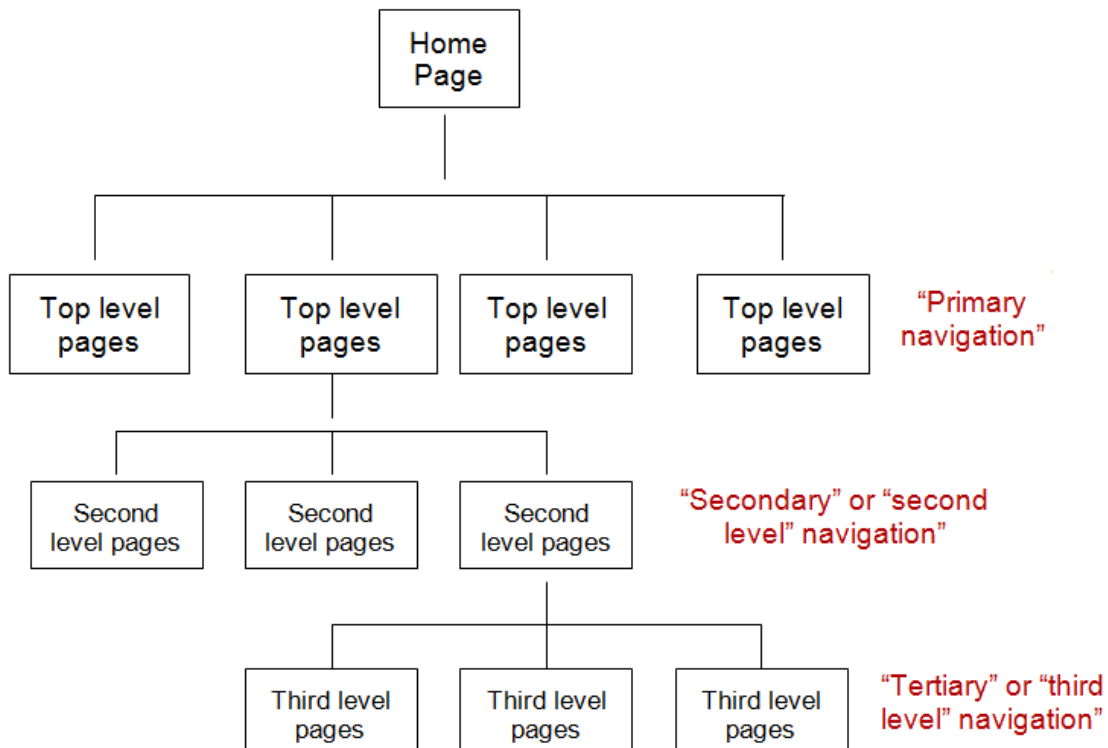
Mary Lynn Benninger, Sarah Forgrave, Jason Greatrex, Megan McDermott, Isaac Morland, Terry Stewart (chair).

Mandate

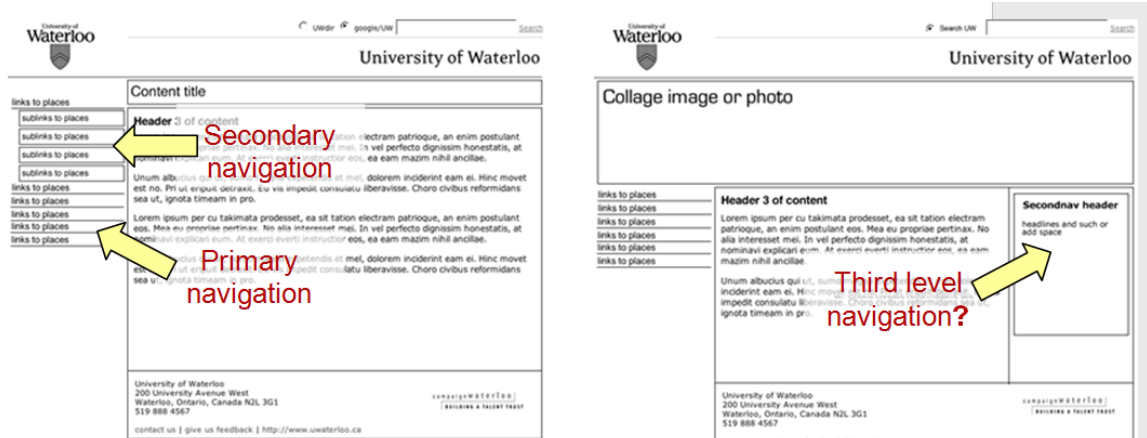
1. review the navigation description in the current Common Look and Feel (CLF) documentation.
2. review the current navigation practices throughout the UW domain, esp. with respect to identifying where the CLF is not being adhered to and why.
3. review the navigation practices in place at other institutions (what can we 'borrow', what should we avoid, etc.)
4. develop a set of recommendations for enhancements to the CLF navigation.

Terminology

In this report we refer to primary, secondary (or second-level), and third-level navigation. A typical website hierarchy may look like this:



In the UW Template, they appear in the following regions:



Current Documentation

The current documentation for navigation can be found on page four of “Web Standards for UW Common Look and Feel”.¹ The WebOps team has also posted some navigation notes on building navigation on the web ops website.²

In the 2005 document by Sarah Forgrave entitled “Standardized Navigation Systems in the Faculty of Science...” recommendations are given for the 9 key top-level navigation systems in use across most Faculties.³ Further documentation can be found in the Navigation Tutorial in the UW Template for Geeks.⁴

The Committee agreed that the CLF documentation is not comprehensive and provides very little guidance. Specifically, there are only a few mandatory elements. These elements include:

- that left-hand navigation is mandatory at all levels;
- the UW logo must link to the UW home page and
- specifications for search area and links on the footer.

Additional documentation is mainly suggestions and recommendations. For example,

- Use of right-hand navigation is not articulated either in the documentation or in the CSS that is provided. (It should be noted that SEW courses address this issue somewhat.)
- The navigation specifications allow for only two levels of left-hand navigation. (Perhaps, a third level be specified or another avenue for third level menus, other than right-hand navigation, be developed.)

¹ http://webops.uwaterloo.ca/Docs/uw_common_look_feel_2005.pdf

² <http://webops.uwaterloo.ca/navigation/index.html>

³ <https://strobe.uwaterloo.ca/~twiki/pub/WebAdvisory/NavigateCLF/stdnav.pdf>

⁴ <http://web.uwaterloo.ca/documentation/clforgeeks/navigationtutorial.html>

- There is no method of grouping like menu items
- There are no recommendations regarding long menu items, how to decide what pages should be include in the navigation and what to do if there are more than the recommended 7-9 menu links.
- There is really only one global navigation menu that is available on all pages. Some areas have found this to be insufficient and have added additional navigation areas (e.g. a horizontal menu below the main title, a second smaller left side block below the existing left side navigation).
- While there is some guidance provided on terminology for faculties, there is little guidance for academic departments. As noted below, the faculties have done a reasonable job of sticking to a set of common terms. The academic departments have made some attempts at consistency but have not standardized terms very successfully.
- There is little guidance for other types of navigation, such as breadcrumbs, site maps, and tables of contents. Web maintainers have implemented these features in different ways.

The current CLF is fairly compliant to current accessibility requirements. The Committee strongly encourages that this compliance be maintained.

Current Practices at UW

On the whole, the Committee found that UW sites provided useful and reasonably consistent navigation. In fact, the document “Usability Testing the University of Waterloo World Wide Web Homepage”⁵ states: “*The participants ranked the navigation on the website quite positively...*”⁶

Not all sites were consistent in their approach. There are many examples of variations on, or extensions of, the navigation elements provided by the CLF, including:

- Some sites have added navigation areas not provided for in the CLF. For example, Housing has done this with the use of a colored box below the standard navigation.⁷ CS has simply implemented a third level.⁸ FindOutMore has implemented a global horizontal menu above the page titles.⁹
- There is wide variation in the use of the right-hand navigation – too many to list here. This area was left open to allow for this but perhaps it is time to start defining some standards.
- With respect to right-hand navigation, it should be noted that a number of sites are using a pseudo-right-hand navigation. For example, the

⁵ http://web.uwaterloo.ca/documentation/documents/UWhomepageusability_aug2005.pdf

⁶ It should be noted that this statement was made based on a comparison of the old versus new navigation, not on the face value of the navigation itself.

⁷ <http://www.housing.uwaterloo.ca/apply/index.html> (Figure 1)

⁸ <http://www.cs.uwaterloo.ca/grad/courses/> (Figure 2)

⁹ <http://www.findoutmore.uwaterloo.ca/> (Figure 3)

About UW page¹⁰ created a “Just the facts” area that looks a lot like a 3 column layout but isn’t. We suspect this was done to increase the text area for the page. The Faculties and Colleges page¹¹ has done something similar to “float” the right-hand navigation without giving up a whole column.

- At least one site, Organizational and Human Development,¹² has left the left-hand navigation fully expanded.
- The Communications and Public Affairs site¹³ and the 50th Anniversary home page¹⁴ have implemented a horizontal menu and eliminated the left-hand navigation. These are sites that don’t require a full left size navigation menu (i.e., they have only a few pages) in order to create more space for content.
- The CECS website¹⁵ and others offer breadcrumbs.
- Sites, such as the Faculty of Arts Career Opportunities,¹⁶ use a table of contents at the top of the page in one format; while CS’s Grad Degree Programs¹⁷ use a different format.
- A number of sites, including International Students¹⁸ and FES¹⁹ have moved the left hand navigation up beside the banner.
- Some pages such as Engineering Headlines²⁰ have created section headers between left navigation items and list many more than the 9 or fewer items recommended in the CLF.
- Some sites have embellished the navigation menu with bullets or other graphical effects. Eg, The David R. Cheriton School of Computer Science.²¹
- While the committee felt it was beyond their scope to investigate search technologies, it is worth noting that there is a wide variation in the placement, options and terminology used in the search element of the CLF.
- Most sites do not offer a site map, which can be a useful tool to some users. Housing has a site map,²² but it differs in form from the one presented by Career Services.²³ Research into the benefits and feasibility of site maps should be conducted.

¹⁰ <http://www.uwaterloo.ca/aboutuw/> (Figure 4)

¹¹ <http://www.uwaterloo.ca/facultiesandcolleges/index.php> (Figure 5)

¹² <http://www.ohd.uwaterloo.ca/> (Figure 6)

¹³ <http://www.communications.uwaterloo.ca/> (Figure 7)

¹⁴ <http://www.anniversary.uwaterloo.ca/> (Figure 8)

¹⁵ <http://www.cecs.uwaterloo.ca/students/> (Figure 9)

¹⁶ <http://arts.uwaterloo.ca/arts/ugrad/careers.html> (Figure 10)

¹⁷ <http://www.cs.uwaterloo.ca/grad/programs/> (Figure 11)

¹⁸ <http://www.international.uwaterloo.ca/> (Figure 12)

¹⁹ <http://www.fes.uwaterloo.ca/> (Figure 13)

²⁰ <http://schooner.uwaterloo.ca/wordpress/?p=235> (Figure 14)

²¹ <http://www.cs.uwaterloo.ca/> (Figure 15)

²² <http://www.housing.uwaterloo.ca/sitemap.html> (Figure 16)

²³ <http://www.careerservices.uwaterloo.ca/SiteMap.asp> (Figure 17)

- Most of the major “internal” administrative applications, myHr, Quest, mywaterloo, etc. make an attempt to follow standard navigation practices on opening pages, but this understandably breaks down as one gets into the actual application.
- With respect to primary navigation items, there was considerable consistency among Faculties and Departments in their use of terminology. The most noticeable difference being that AHS²⁴ that put Grad Students in with Students rather than Grad Studies and Research and CS²⁵ who separated Grad Studies and Research into two items. As one goes further into a site (third level or more), the terminology breaks down.
- There is inconsistency in how items are ordered. Some sites order links alphabetically, while others order them logically.
- Terminology is inconsistent on academic support service web pages.

There are many other minor variations on the CLF template that are not covered here. The Committee feels the above is a representative sample that may lead to useful recommendations.

A major failing in the UW web space is the disconnection between the separate units. Each Faculty, School, and administrative unit tends to be a separate site, with its own look and its own set of navigation methods and no way to get between them. Chris Redmond once remarked that UW is a group of Faculties loosely held together by their dislike of Parking Services. The UW web site appears to be a loose connection of separate sites held together by the linkable logo in the top left corner.

Current Practices at Other Sites

The committee surveyed and reported on many other websites, including Canadian and American Universities, business sites, and high tech sites. There was tremendous variation in navigation methods as might be expected.

Few notable examples were found among Canadian Universities. Most universities that we looked at had many navigation menus, often including a horizontal and vertical menu as well as breadcrumbs, and/or additional horizontal and vertical menus. Navigation was often inconsistent across the domain.

University of Calgary²⁶ was one exception. Here both horizontal and vertical menus were consistent throughout much of the site. The horizontal menu stayed the same on all sites, providing quick navigation back to the home

²⁴ <http://www.ahs.uwaterloo.ca/> (Figure 18)

²⁵ <http://www.cs.uwaterloo.ca/> (Figure 11)

²⁶ <http://www.ucalgary.ca/> (Figure 19)

page, prospective students, current students, alumni, and community. This is somewhat reminiscent of the “Gold Standard” that had user groups along the left side.

American and British university and college sites tended to use breadcrumbs, site maps and search tools, as well as links in the body of the page. The University of North Dakota²⁷ uses left, right and top menus and even hidden submenus in the top right corner; whereas Northwestern²⁸ and UCLA²⁹ make little use of menus, relying heavily on body links. The London School of Economics presents their home page as a newspaper style mosaic of columns and headings. Vassar’s home page³⁰ is a visual if not useful collection of links. Also interesting is the new Brown³¹ University home page which is mainly an ordered collection of links.

A site of particular interest to the Committee for its navigation is the University of Nebraska at Lincoln.³² Three things stand out:

- The left-hand navigation is an inline list format with headers. This allows for good organization of items while taking up less screen space. If more than 5 sub-items are listed under the header, a “more” link appears to dynamically show the hidden items.
- The horizontal menu at the top carries throughout the entire domain and provides access to key central pages
- The “Quick Links” drop down in the top right that serves almost as a site map and is on every page.

The survey of other types of sites (banks and high tech sites) provided many of the same observations as above. Two things stand out.

- The use of drop down navigation techniques to provide access to key applications. For example, TD-Canada Trust³³ provides a drop down technique to getting to applications such as Easyweb. This tends to reduce the clutter of application links that some visitors aren’t interested in.
- Commercial sites do not tend to segment their visitors into audience groups. Prospective clients are not distinguished from current clients or business partners, etc. One example of this in the education sector is NYU,³⁴ which does not include audience group links on its home page.

²⁷ <http://www.und.edu/> (Figure 20)

²⁸ <http://www.northwestern.edu/> (Figure 21)

²⁹ <http://www.ucla.edu/> (Figure 22)

³⁰ <http://www.vassar.edu/> (Figure 23)

³¹ <http://www.brown.edu/> (Figure 24)

³² <http://www.unl.edu/ucomm/prospective/> (Figure 25)

³³ <http://www.tdcanadatrust.com/> (Figure 26)

³⁴ <http://www.nyu.edu/> (Figure 27)

Recommendations

1. **All future changes to navigation should be properly documented.** Each navigational items should be clearly defined with recommendations for their use, appropriate CSS and best practices guidelines.
2. **Navigation terminology should be reviewed when the website is redesigned.** The navigation terms for the Faculties are fairly consistent but there is enough variation that a standard needs to be defined. Some effort should be put into defining terms and placement of common links for non-academic sites.
3. **A decision should be made on how navigation items are ordered when the website is redesigned.** Are navigation items to be ordered alphabetically or logically?
4. **Navigation options should be more flexible to meet the needs of sites with specific navigational needs when the website is redesigned.** The Committee found a number of non-standard navigational techniques being used.
5. **A standard format should be developed for sitemaps, breadcrumbs and tables of contents when the website is redesigned.** The Committee felt that, regardless of whether the CLF is tweaked or completely re-written, a standard for these items would be useful.
6. **Breadcrumbs should be implemented if or when the technology to automate these is available.** In the absence of such a technology, the work of implementing breadcrumbs, though useful, would be too daunting and difficult to maintain.
7. **A method of grouping like items on the left-side menu should be considered when the website is redesigned.** The style used at Nebraska-Lincoln might be a good model to emulate.
8. **Suggestions for various uses of the right-hand sidebar would be helpful now.** Too many different techniques are currently being used.
9. **Consideration should be given to creating a horizontal top menu that would be consistent and mandatory across all UW web pages when the website is redesigned.** This would provide access to key central web pages from all pages in the UW domain. Such a menu could include either the key audience groups or key navigational pages (e.g., Faculties & Colleges, Services, etc.)
10. **Page Headings should match navigational links/items. These should act as meaningful labels.**
11. **The use of a Drop-down menu for common administrative applications (MyHR, mywaterloo, Quest, UW-ACE) should be considered in a new website design.** These are useful items and using this technique would allow all of them to be accessible without taking up a lot of screen space.

- 12. All changes to the navigation structure in the CLF should be compliant with Accessibility standards set out by the W3C and U.S. section 508 (pending similar legislation in Canada).**
- 13. A separate sub-committee, independent of the navigation sub-committee, should be formed, as soon as possible, to investigate search strategies technology for campus.**