

# Findings and Recommendations: Web Standards and Guidelines for University of Kentucky Websites

June 13, 2001

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## Mission

The mission of the Web Standards Committee is to evaluate and expand the current University of Kentucky Web standards and guidelines and to assure innovative application of information technology in

- academic programs
- research programs
- public service programs
- university business operations

Toward this end, the standards and guidelines for the University of Kentucky Web pages will be updated to reflect:

- enhanced appearance
- appropriate content
- ADA compliance
- e-commerce applications
- cultural programs
- athletic programs

## History

In February 2001, a subcommittee of the Web Publishers Group was formed with the task of evaluating current University of Kentucky Web Standards and requirements and

recommending changes as needed. The committee began work by dividing the research into the following areas:

- a. 19 benchmark institutions' Web standards and guidelines;
- b. Select Fortune 500 companies' Web standards and guidelines (15 to 20);
- c. Generic markets and types of content required by each (who are the users);
- d. Graphic design of 19 benchmark institutions' Web sites;
- e. Usability requirements for university Web sites (content);
- f. Ease of use requirements for university Web sites (navigation);
- g. ADA compliance issues;
- h. Browser issues.

The goal of this committee's work is to make recommendation that will "give users more of what they need. And easier access to what they need."<sup>1</sup> Users will quickly leave our sites "if they can't figure it out. The abundance of choice and ease of going elsewhere puts a huge premium on making it extremely easy to enter a site."<sup>2</sup> With these two thoughts as an overriding concern, and, as a result of our research, the following Standards and Guidelines are recommended.

University of Kentucky  
Web Standards and Guidelines  
(Draft 6/15/2001)

The Web Standards and Guidelines supplement the *Policy Governing Access To and Use of University of Kentucky Computing Resources* (<http://ukcc.uky.edu/%7Eukccinfo/policy.html>) and *University of Kentucky Policy Governing Creation and Use of World-Wide Web Materials* ([http://www.uky.edu/Regs/WebPolicy/.](http://www.uky.edu/Regs/WebPolicy/))

### General Guidelines

1. Each page should be identifiable as a stand-alone page that is a component of the University (users will not always enter from the home page). To achieve this, on each page you should have:
  - \* University of Kentucky (current official logo and/or text)
  - \* Department or organization name (logo and/or text)
  - \* The title (content identifier) of the page
  - \* Contact information
  - \* Date of last update
2. Each site should follow good hierarchical organization. Users are searching for something 96% of the time they are on the Web. Design the organization for your target audience. Your site does not have to mirror your organizational chart.
3. Pages should be designed to function correctly and to be aesthetically pleasing when viewed on a wide variety of sizes. *When this is not possible*, design for an 800 x 600 pixel screen unless you know that most of your target audience are using a different resolution. Recent web surveys indicate that slightly more than half of all web users have their screens set for 800 x 600. Remember also that many users may have their browser windows set smaller than a full screen.
4. Pages should be designed to be quickly downloaded. (Experts say you have six to eight seconds to keep users from leaving your site.) To quote Hillman Curtis "Eight is enough." Hillman Curtis never veers from his primary rule of online design: no download should take more than eight seconds, regardless of how slow a Net surfer's modem might be. "After waiting eight seconds for a download," he says, "people tend to move on." As a result, we find ourselves building 20k and 30k spots with interactivity."<sup>3</sup> See Recommendations, Priority 1, Number 10.
5. Splash pages should be avoided. Splash pages add a level of complexity to the organization of a site without adding content. They actually move the user further

away from his/her intended target. Instead of a splash page, one should rely on a welcome page that is laid out logically and attractively

6. Be judicious about use of newer technologies. Newer technologies may be appropriate and add meaning to sub-level pages. However, they should not be used indiscriminately and should rarely be used on home pages. Many users will not bother to download the viewer. If newer technologies are used, alternate pages must be provided that use a standard technology.
7. Keep it simple.

## Requirements

1. The University of Kentucky Master Navigation Bar is required at the top of ALL homepages for colleges, departments, and units. This helps to create a consistent look and navigation feel to the pages as well as to identify the page and organization as part of the University of Kentucky. The Master Navigation Bar may be any of the three approved versions and must be mounted as directed at *How to Mount the Master Navigation Bar* (<http://www.uky.edu/newhome/submain/passcheck.html>) E-mail [webmaster@www.uky.edu](mailto:webmaster@www.uky.edu) for a password.

Failure to display an *approved* version of the University of Kentucky Master Navigation Bar will result in the Web site creator being asked to make the necessary corrections. Failing this, notification will be sent to the person who has administrative oversight over the area the Web site represents or his/her designee and continue up the branches of management until the situation is resolved.

2. All pages must be clearly identified. All official Web material must include the following elements in a clear and obvious form:
  - a. Identification of the materials as being from the University of Kentucky. If the UK logo is included on any Web material, it *must* be the official logo with the correct design and color. (Copies of the official logo are available online at <http://www.uky.edu/parts/> for use in the creation of Web materials.)
  - b. The name of the individual or department responsible for the content.
  - c. Contact information. On the home page, that information should include minimally an e-mail address of the person responsible for the site. The e-mail address should be in the form of: [email\\_id@xxx.uky.edu](mailto:email_id@xxx.uky.edu) (example: [webmaster@www.uky.edu](mailto:webmaster@www.uky.edu)). This will allow people who have a printed copy of your page or who do not have an e-mail enabled browser to e-mail you later from his/her regular e-mail application.
  - d. The date when the materials were last updated. It is important to keep material on the Web updated. Web sites that contain out-of-date information and/or outdated UK logos may be unlinked by a University of Kentucky Webmaster and/or the

person who has administrative oversight over the area the Web site represents or by his/her designee.

3. No broken “Back” buttons. No page should deliberately block the user from “backing” to a previous page. This frustrates the user and will likely dissuade him/her from returning to the site.
4. No site should deliberately block the user from going to other sites while being caught in the frame of the home site. This is very frustrating for the user who doesn’t care about your home page once they have been there.
5. Fonts, if specified, should be selected for clarity and ease of reading.
  - A. Font size should be legible without being overwhelming.
  - B. Avoid blinking text since it is annoying and difficult to read.
  - C. Avoid underlined text since it can be mistaken for hyperlinks.
6. Your site should be navigable without your design elements and should be accessible for those using assistive methods and/or alternative methods to access the Web.
  - A. Users should be able to access your links without using your mouse, i.e., <TAB> through your links. How does your page look if someone is overriding your colors or is color blind?
  - B. If you cannot provide access with your page design, you must provide a text version for each page in that is not accessible. Links to the text version should be at the top of the page so users can access the text version easily.
7. Consistent page layout and use of links should be used. A consistent layout identifies your pages as belonging together. Inconsistent page layout and inconsistent use of links confuse those with cognitive disabilities.<sup>4</sup> Additionally, “if users don’t understand a certain design element, they don’t spend time learning it - instead, they ignore it and continue the hunt for their own goal.”<sup>5</sup>

## **Recommendations**

*The recommended guidelines are prioritized and all sites are strongly urged to meet the Priority 1 Recommendations.*

### **Priority 1**

1. Have a good hierarchical organization of the site. Users “often arrive at pages through search or other means that bypass the higher-level navigation pages; it is necessary to provide a path back to these higher levels. In particular, it is useful to link to a page that provides an overview of the current subsite or region.”<sup>6</sup>

2. Include links to “higher level” Web materials. For example, a department should link to its college.
3. Have a meaningful title. This will not only help the user know where he/she is, it will help with searches.
4. Be ADA compliant on your home page and the first sub-level pages. ADA compliance can be tested with “Bobby.” Bobby Priority 1 compliance (minimum) would meet this requirement. Bobby is available for free from the Center for Applied Special Technology, CAST, at <http://www.cast.org/bobby/>
5. Pop-Up Windows should be used rarely, if at all. If a new browser window is launched, the user should be notified about the new browser and how to return to the page he/she left. The user should be able to turn off the Pop-Up Window immediately. “Users often don't notice that a new window has opened, especially if they are using a small monitor where the windows are maximized to fill up the screen. So a user who tries to return to the origin will be confused by a grayed out Back button.”<sup>7</sup>

A good example of how pop-up windows can be used is to display a slide show, such as the “Summary of the President’s Tobacco Commission Report” launched from <http://www.uky.edu/Ag/TobaccoEcon/policy.html>. The user is told that if he/she selects this link, a new window will be opened. On every slide of the slide show, the user is told that he/she may return to the Tobacco Econ Policy page by closing the slide show window. The user is able to return to the Tobacco Econ Policy at the end of the slide show without having to back all the way out.

A bad example of pop-up windows can be found at About.com. Upon entering the site, an ad window opens. The user is not given a choice and is not told the new window is open. Because pop-up windows are often used for advertising, many users close the windows before the window is completely loaded and never look at the content.

6. Cascading Style Sheets (CSS) are recommended. “By attaching style sheets to structured documents on the Web (e.g. HTML), authors and readers can influence the presentation of documents without sacrificing device-independence or adding new HTML tags.”<sup>8</sup> However, if they are used, your pages need to be able to work when style sheets are disabled in the browser.
7. Use “welcome.html” as the ending address for your department’s or unit’s homepage. This saves viewers from typing 10 extra characters (not to mention saving ink and space on letterhead and business cards). It looks cleaner and saves space. For example, [www.uky.edu/](http://www.uky.edu/) equals [www.uky.edu/welcome.html/](http://www.uky.edu/welcome.html/).

Dave Elbon adds, “The web server (www.uky.edu) looks first for welcome.html as the default file in a directory, so a URL like **www.uky.edu/xyz/** is looking for **www.uky.edu/xyz/welcome.html**. If it doesn’t find welcome.html it looks for index.html and some others, but we recommend welcome.html. Also, the search index spider follows links, so it gets whatever the link points to. If a link

points to www.uky.edu, the server's behavior described previously can come into play."

John Soward adds, "First to expand on Dave's comments, the browser doesn't figure into this equation at all. The browser doesn't know to add anything after a "/" {forward slash}, it's the server which does this. This is an important difference, partly because what types of files to look for (or if it will look at all), for example www.uky.edu doesn't look for 'default.html' or any permutation thereof. Additionally it may seem like you could save an extra character by leaving off the trailing "/", and you can, but at the expense of adding an additional client-server transaction, the browser will ask for something/something and be told to try something/something/, this adds load to the server and can add a significant startup delay for modem users. Lastly the server does search for files in a particular order, on www.uky.edu specifically it currently is:

***welcome.html index.cgi index.html Index.html Welcome.html  
index.htm welcome.htm Index.htm Welcome.htm***

Thus you can sometimes get caught debugging a 'mysterious' page, when really you've just put up a new 'Index.html' (upper case "I") to replace an old 'index.html' (lower case "i") or similar.

8. For all urls, use lower case and avoid spaces. In lieu of spaces, use underscores. This will reduce the server load.
9. When adding, redesigning or reconfiguring a site please contact the University webmasters and give them the new URL's. This will allow for proper listing in the Master Site Index. A note to the UK Web Publishers Group listserv will also alert others that may need to know about the changes so they can make corrections to their sites.
10. Pages should load quickly and easily for the largest number of users possible. To achieve this, avoid an excessive number of graphics or images that are extremely large file sizes. Also avoid the use of newer technologies that require the downloading additional software (plugins, viewers, etc.) or use a large amount of the user's computer resources unless absolutely necessary. If newer technologies or excessive graphics are used, offer alternatives such as text-only versions. If additional software is required, provide a link to it.
11. Avoid the use of background images unless absolutely necessary. While these images can certainly add to the aesthetics of a page, the balance should tip in favor of accessibility. If the graphic is overwhelming or compromises the ease of use of the page (increases the time the page takes to load, makes the text difficult to read), then do not use it. The background image should subtly enhance the aesthetic appeal of the page; if it does not do this, then avoid it.

## Notes

- 1 Nielsen, Jakob. "Prioritize: Good Content Bubbles to the Top". *Alertbox* October 17, 1999: <http://www.useit.com/alertbox/991017.html>
- 2 Nielsen, Jakob. "Novice vs. Expert Users". *Alertbox*, February 6, 2000: <http://www.useit.com/alertbox/20000206.html>.
- 3 Kaplan, Michael. "Minimalist to the Max, Web designer Hillman Curtis exploits the limitations of the Internet". *Adobe Magazine*, Nov/Dec 2000, page 30.
- 4 Gassaway, \_\_\_ and Kristina Krampke. "Accessing the Internet Using Alternative Input and Output Devices and Software". 2001: [http://www.uky.edu/TLC/grants/uk\\_ed/webstandards/handout.html](http://www.uky.edu/TLC/grants/uk_ed/webstandards/handout.html)
- 5 Nielsen, Jakob. "Is Navigation Useful?". *Alertbox*, January 9, 2000: <http://www.useit.com/alertbox/20000109.html>
- 6 Nielsen, Jakob. "Is Navigation Useful?". *Alertbox*, January 9, 2000: <http://www.useit.com/alertbox/20000109.html>
- 7 Nielsen, Jakob. "The Top Ten New Mistakes of Web Design". *Alertbox*, May 30, 1999: <http://www.useit.com/alertbox/990530.html>
- 8 Bos, Bert. "What Are Style Sheets?" W3C, June 13, 2001, <http://www.w3.org/Style/>

## Resources

“Accessible web design”, Royal National Institute for the Blind (RNIB), April 9, 2001, <http://www.rnib.org.uk/digital/hints.htm/>.

Adams, Katherine. *Copyright Basics for Web Course Developers and Distance Learning Projects*. Handout distributed at January 16, 2001 meeting of the Web Publishers Group.

Argus Associates. “Major Tom, Is Your Dashboard Usable?“, The Web Developer's Virtual Library, <http://www.wdvl.com/WebRef/Navigation/Stars.com/Dashboard.html>.

Bos, Bert. “What Are Style Sheets?” W3C, June 13, 2001, <http://www.w3.org/Style/>

Gassaway, \_\_\_ and Kristina Krampke. *Accessing the Internet Using Alternative Input and Output Devices and Software*, [http://www.uky.edu/TLC/grants/uk\\_ed/webstandards/handout.html](http://www.uky.edu/TLC/grants/uk_ed/webstandards/handout.html)

Kaplan, Michael. “Minimalist to the Max, Web designer Hillman Curtis exploits the limitations of the Internet”. *Adobe Magazine*, Nov/Dec 2000, page 30.

Kirsanov, Dmitry. “Designing Site Navigation”. <http://www.webreference.com/dlab/9705/index.html>, Dmitry’s Design Lab, May 1997.

Letourneau, Chuck, Gregg Vanderheiden, et.al. “Web Content Accessibility Guidelines 1.0: W3C Recommendation 5-May-1999”, W3C, <http://www.w3.org/TR/WAI-WEBCONTENT/>

Morris, Charlie. “Navigation 101: Basic Principles of Web Site Navigation” <http://www.webdevelopersjournal.com/articles/navigation.html>, *Web Developer’s Journal*, <http://www.webdevelopersjournal.com/index.html>.

Muehlbauer, Jen. “The Navigation and Usability Guide”, [http://www.webreview.com/1998/05\\_15/designers/05\\_15\\_98\\_2.shtml](http://www.webreview.com/1998/05_15/designers/05_15_98_2.shtml), *Webreview: Cross-training for Web Teams*, May 15, 1998.

NetMechanic “Splash Pages May Drown Your Site” *Webmaster Tips Newsletter* [http://www.netmechanic.com/news/vol3/promo\\_no13.htm](http://www.netmechanic.com/news/vol3/promo_no13.htm).

Nielsen, Jakob. *Alertbox*: <http://www.useit.com/alertbox>

“The 3Cs of Critical Web Use: Collect, Compare, Choose”, April 15, 2001; <http://www.useit.com/alertbox/20010415.html>

“Are Users Stupid?”, February 4, 2001, <http://www.useit.com/alertbox/20010204.html>

“Flash: 99% Bad”, October 29, 2000, <http://www.useit.com/alertbox/20001029.html>

“Why You Only Need to Test With 5 Users”. March 19, 2000:

<http://www.useit.com/alertbox/20000319.html>

“Novice vs. Expert Users”, February 6, 2000, <http://www.useit.com/alertbox/20000206.html>.

“Is Navigation Useful?”, January 9, 2000, <http://www.useit.com/alertbox/20000109.html>

“Usability as Barrier to Entry,” November 28, 1999, <http://www.useit.com/alertbox/991128.html>

“When Bad Design Elements Become the Standard,” November 14, 1999,

<http://www.useit.com/alertbox/991114.html>

“Prioritize: Good Content Bubbles to the Top”, October 17, 1999,

<http://www.useit.com/alertbox/991017.html>

“The Top Ten New Mistakes of Web Design”, May 30, 1999,

<http://www.useit.com/alertbox/990530.html>

“Search and You May Find”, July 15, 1997, <http://www.useit.com/alertbox/9707b.html>

“Effective Use of Style Sheets”, July 1, 1997, <http://www.useit.com/alertbox/9707a.html>

“Top Ten Mistakes in Web Design”, May 1996; <http://www.useit.com/alertbox/9605.html>

Royal National Institute for the Blind (RNIB), Accessible web design

<http://www.mib.org.uk/digital/hints.htm>

Tungare, Manas. “Handy Hints for Web Designers”, WebReference Update Newsletter, July 13, 2000, <http://webreference.com/new/handyhints.html>.

W3C: List of Checkpoints for Web Content Accessibility Guidelines 1.0

<http://www.w3.org/TR/WAI-WEBCONTENT/checkpoint-list.html>

## **Web Standards from Other Universities**

Colorado State University (<http://www.colostate.edu/info/webgd.html>)

University of California at Berkeley (<http://amber.berkeley.edu:5014/index.html#guide>)

University of Illinois at Urbana-Champaign (<http://www.uiuc.edu/help/recommend.html>)

University of Maryland

(<http://www.inform.umd.edu/CampusInfo/Departments/InstAdv/UnivPub/sg/>)

Ohio State University ([http://cio.ohio-state.edu/policies/web\\_policy.html](http://cio.ohio-state.edu/policies/web_policy.html))

**University of Kentucky  
Top 19 Benchmarks**

- University of Michigan – Ann Arbor <http://www.umich.edu/>  
<http://www.med.umich.edu/umhswww/umhsguidelines/>  
University site  
June 29, 2000  
<http://www.med.umich.edu/medschool/web/ummsweb.guidelines.html>  
Medical School
- University of Wisconsin – Madison <http://www.wisc.edu/>  
[http://www.library.wisc.edu/help/tech/Web\\_standards.html](http://www.library.wisc.edu/help/tech/Web_standards.html)  
October 27, 1999
- University of Washington <http://www.washington.edu/>  
[http://www.washington.edu/medical/amc\\_templates/amc\\_webstandards.html](http://www.washington.edu/medical/amc_templates/amc_webstandards.html)  
July 14, 1997
- University of California – Los Angeles <http://www.ucla.edu/>  
<http://www.bol.ucla.edu/policies/index.html>  
This is an Acceptable Use Policy for all computing services  
Nov. 30, 2000
- Texas A&M - <http://www.tamu.edu/>  
<http://www.msc.tamu.edu/services/cops/policies.shtml>  
Includes web server policies, state of Texas web page requirements  
Effective July 1, 2000  
<http://wwwmsc.tamu.edu/cops/HTMLrefs.html>  
Web development References
- University of Minnesota – Twin Cities - <http://www.umn.edu/>  
[http://www.fpd.finop.umn.edu/groups/ppd/documents/policy/Publishing\\_on\\_WWW.cfm](http://www.fpd.finop.umn.edu/groups/ppd/documents/policy/Publishing_on_WWW.cfm)  
March 7, 2001
- Penn State University- <http://www.psu.edu/>  
<http://www.psu.edu/policies/webpolicy.html>  
Oct. 28, 1998
- Ohio State University - <http://www.ohio-state.edu/>  
<http://www.osu.edu/resources/>  
no date
- University of Illinois – Champaign- Urbana - <http://www.uiuc.edu/>  
<http://www.cic.uiuc.edu/homepage/webguide.html>  
December 15, 1999
- University of Arizona - <http://www.arizona.edu/>  
<http://www.cs.arizona.edu/computer.help/policy/standards.html>  
Jan. 30, 2001
- U of Florida - <http://www.ufl.edu/>  
<http://www.webadmin.ufl.edu/polcystnd.htm>  
various links to related web use policies
- University of Texas – Austin - <http://www.utexas.edu/>  
<http://www.webadmin.ufl.edu/polcystnd.htm>

Business School policy  
April 2, 1998

North Carolina State - <http://www.ncsu.edu/>  
<http://search.ncsu.edu/s97is.vts?action=View&VdkVgwKey=http%3A%2F%2Fwww%2Eencsu%2Eedu%3A80%2Fncsu%2Fmisc%2Fwww%5Fimp%2Fguidelines%2F&DocOffset=2&DocsFound=14&QueryZip=web+guidelines&Collection=ncsu&SearchUrl=http%3A%2F%2Fsearch%2Eencsu%2Eedu%2Fs97is%2Evts%3Faction%3DSearch%26QueryZip%3Dweb%2Bguidelines%26ResultTemplate%3Dgeneral%255Fncsu%252Fstndrslp%252Ehts%26QueryText%3Dweb%2Bguidelines%26Collection%3Dncsu%26ResultStart%3D1%26ResultCount%3D10&ViewTemplate=general%5Fncsu%2Fstndviep%2Ehts&ServerKey=Primary&AdminImagePath=%2Fsearch97adming%2F&Theme=Standard&Company=NC+State+University>

July 1996

University of Georgia - <http://www.uga.edu/>  
<http://www.uga.edu/help/>

Pagemaster help page  
Sept 1, 2000

University of NC – Chapel Hill - <http://www.unc.edu/>  
<http://www.unc.edu/campus/aboutweb/howto/cgi/>

no date

University of Maryland – College Park - <http://www.umd.edu/>  
<http://www.otal.umd.edu/guse/standards.html>

Oct 12, 1998

Purdue University - <http://www.purdue.edu/>  
[http://www.purdue.edu/oop/pmc/pages/communications/web\\_graph\\_guide.html](http://www.purdue.edu/oop/pmc/pages/communications/web_graph_guide.html)

no date

University of Iowa - <http://www.uiowa.edu/>  
<http://www.uiowa.edu/~uiweb/>

no date

University of Virginia - <http://www.uva.edu/>  
<http://www.virginia.edu/universityrelations/webguide/>

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