UNM Web Standards :: Draft

Browser support

UNM web pages should be developed to support UNM's recommended browsers. Efforts should be made to check that the pages of your website appear correctly in all recommended versions of the listed browsers.

http://webmaster.unm.edu/recommended-browsers.html

You can view current UNM browser stats at: http://webmaster.unm.edu/stats/browser.php

Development specifically for IE6 is discouraged.

[*we want to do a survey to determine applications on campus that have specific browser requirements. We will list those on the recommended browser page.*]

HTML

UNM's current WCMS system uses xHTML as its standard. To promote consistency xHTML is the recommenced flavor of HTML. All HTML should be well formed and validate against the specified doctype.

XHTML coding rules and syntax

XHTML has a set of rules associated with it that the ensure properly formatted and standard compliant code. These rules are easy to follow once learned but may require some minor changes to your coding practice. While these rules apply to xHTML, it is recommend they are also followed for HTML.

- There must be a DOCTYPE declaration
- All tags and attributes must be in lower case
- All elements must be closed
- The value assigned to an attribute must be enclosed in quotes
- No attribute may be minimized
- All elements must be properly nested
- xHTML documents must be well-formed

For more information:
- http://www.devguru.com/technologies/xhtml/quickref/xhtml_coding_rules.html
- http://www.w3.org/TR/xhtml1/
- http://www.htmlquick.com/tutorials/xhtml.html

HTML5 is being evaluated as our supported HTML flavor. As more browsers support a wider

range of HTML5 features and UNM's browser usage better matches HTML5 browsers we will begin exploring a conversion.

Site Structure

Best practices for organizing the files and directories of your website:
- File names or anchor names should never have any space. Use dashes instead of spaces. File names should be short yet descriptive. Avoid abbrev. for seo
- HTML files should preferably have an .html extension. .htm is acceptable, (.cfm, .php, .asp etc are appropriate for servers using those languages.) provided all files in the site are named consistently.
- File and directory names should all be in lower case
- The main page or default in a directory should always be named index.html, or, ???? depending on the configuration of the server default.htm, index.php, index.cfm, index.asp, etc. A default page should be created in every directory to avoid 404 pages or directory indexes from appearing to the user.
- If you move frequently accessed files to a new location, provide a redirection page from the old location.
- As a general rule, please keep your site organized and use a common images folder. (i.e "images/unm-image.jpg or "images/unm-graphic.gif")

Site Design

Required elements:
- An approved UNM Logo must appear at the top of the page.
- The words "The University of New Mexico" must appear in the HTML Title tag.
- The words "The University of New Mexico" must appear on the home page.
- The official UNM logo must appear on all pages of your website.
- A link back to the UNM home page must be included on the pages of the site
- A link to contact information for the department must appear on the home page. Include an email address, phone number, and mailing address.

To make the site easy for Users please consider the following:
- Do not use Tables for the website layout. Instead make use of CSS.
- Do not use tools like Microsoft Word to create the page and then save as HTML - or - Avoid tools that generate proprietary HTML markup such as Microsoft Word.
- Always include a way for visitors to contact someone. This is important so that broken links, misspellings, etc. can be reported.
- Keep the primary navigation consistent across all pages of the site.

- Keep the general appearance of the webpages consistent across all pages of the site.

Images, Graphics and Multimedia

Images & Graphics

The images/graphics on your UNM web site(s) should:

- Be relevant, professional, optimized for the web, and legal.
- Adhere to UNM Identity/Branding standards, (http://ucam.unm.edu/marketing/identity-standards/index.html).
- Refrain from using clip art or animated .gifs.
- Make sure you own or have the permission to use any photos for your site. If you are not sure who owns the image or do not have permission to use the image, do not use it.
- Specify your image size and use the "alt" tag (the text equivalent) to describe your image in your HTML.
- Re-size your images using image editing software before you upload them. Do not re-size images by setting the height and width in your HTML.
- Do not distort (squish or stretch) your image. All images should maintain their original aspect ratio or be cropped to the desired size.

If you require assistance please refer to the UNM Brand Standards Guide or contact University Communications and Marketing.

The UNM Image Gallery is a free resource for anyone producing web and print material for promoting UNM (http://ucam.unm.edu/marketing/identity-standards/photos.html).

Please make efforts to use the appropriate image types for media:

JPG - Use JPEG images for photographs and other images that have millions of colors. The JPEG format is not suited to images with text, large blocks of solid color, and simple shapes with crisp edges.

GIF - Use GIF files for images that have a small number of colors. The GIF format is not suitable for photographic images or images with gradient colors.

PNG - PNGs are an alternative to GIFs. They have the added benefit of creating smaller file sizes in most cases. They offer better transparency options, including alpha channel transparency. They can support high color depth. Older browser may have issues with PNG files. However, most modern and recommended browsers can support them.

Multimedia

If you include flash, video or audio on your site, please provide text alternatives. (i.e. Closed Captioning)

Flash and Multimedia elements should be used appropriately and not as a means of delivering your website content. Websites created entirely in Flash are discouraged. Websites created in Flash must have text alternatives to ensure the content is available to the widest possible audience. The use of Flash to create navigation is also discouraged; if used, a text alternative is also required.

- recommended video format?
- recommended flv player (can we centralized it?)

Accessibility

All UNM websites should make reasonable effort to comply with Section 508 Accessibility requirements.

SECTION 508 – Web Accessibility 1194.22 Web-based intranet and internet information and applications. UNM Websites should comply with the standards for accessibility as set forth by Section 508, an amendment to the United States Workforce Rehabilitation Act of 1973.

1. A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).
2. Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.
3. Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.
4. Documents shall be organized so they are readable without requiring an associated style sheet.
5. Redundant text links shall be provided for each active region of a server-side image map.
6. Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.
7. Row and column headers shall be identified for data tables.
8. Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.
9. Frames shall be titled with text that facilitates frame identification and navigation.
10. Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.

11. A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.
12. When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology.
13. When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).
14. When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.
15. A method shall be provided that permits users to skip repetitive navigation links.
16. When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.

Detailed information about the latest version of Section 508 requirements can be found at: www.access-board.gov/sec508/guide/1194.22.htm

Metadata

For the purposes of this document, the term *metadata* refers to information in web pages contained in html meta tags.

Meta tags are used in web pages for three purposes:

1. To emulate HTTP response headers.
2. To supply information (metadata) about the page itself.
3. To include instructions to search engines that are indexing the page.

Meta tags used to emulate HTTP response headers
Use of `<meta http-equiv>` is discouraged. If precise control over headers is required the actual http headers should be manipulated on the server.

Using meta tags to provide information about the page

This is the most common use of meta tags, and is supported by the WCMS. It is used to provide information about a webpage such as the content's author, key words used for searching and relevant dates. The basic format of such a meta tag is:

```
<meta name="some-name" content="some-content" scheme="an-optional-scheme" />
```

Note that the `name` and `content` attributes are required; the `scheme` attribute is not.

While there are some widely used values for the name attribute, the meta tag standard is not tightly defined and provides a great deal of latitude to page authors. In addition, meta tags may or may not be recognized by search engines and other indexing services, and so a strict standard regarding their use isn't in the scope of this document. Because of the loose W3C standard and the shifting role that meta tags have with search engines, this standard is general in nature.

This standard suggests some meta tags that should be included in all documents, based on the metadata that the WCMS provides to content managers. Users who are not using the CMS are encouraged to use the them as a basic guide for the meta tags to include in their own content. Users who are using the WCMS are encouraged to use the WCMS' abilities by ensuring that the proper fields at the page level are filled in.

- description - a brief description of the page's content; The description should no longer than 25 - 30 words. Note that Google will probably use this in the 'snippet' portion of its search results, so this should be a clear, concise, factual, and engaging description of the page.
- keywords - a list of words describing the content of the document. The list of keywords should be short and directly related to the page's content and subject matter, preferably containing words that the document itself contains. While there is no limit on the length of the content field, it should be succinct.
- author - if used this should contain the page author's name. In many cases, this will be a business unit's name (such as a department).
- date - the WCMS will include the date that the page was published as a meta tag.

Using meta tags to provide information to search engines

Some search engines understand specific meta tags, and content editors can use meta tags to create more effective search results. In particular, Google's search engine recognizes some meta tags. Other search engines may or may not follow suit; however, the University uses Google Search Appliances for it's search functions, and the popularity of Google.com for searching for web pages make it the primary target for search engine optimization.

Empty meta tags

Avoid including empty meta tags in web pages. An empty meta tag is one that has nothing in it's content attribute. For example:

```
<meta content="" name="author"/>
```

In this case, the tag should be removed altogether since it may have unexpected results in search results.

Restrictions on meta tags

There is no restriction on the use of meta tags and meta tags may be used as page authors and designers see fit. For example, meta tags that implement Dublin Core standards may be used freely. However, content editors should know and understand the implications of including meta tags on their pages before using them. The WCMS provides a rich set of tools for creating customized content, including meta tags. Please see the WCMS documentation for more information about how to use these tools for your WCMS-managed content.

Scripting

Use client-side JavaScript for enhancement purposes - navigation and functionality of the pages should not be dependent upon JavaScript.

Use the noscript tag... fill in details here...

Web Applications may make use of JavaScript for features and functionality.

Quality Assurance Testing

Best practices in web development include Quality Assurance Testing.
Analytics provided by UNM's webmaster narrows the range of exactly what needs to be accounted for in quality testing. Web statistics are available at http://webmaster.unm.edu.

Operating systems to test include Linux, Macintosh, and Windows. Depending on the particular web presence, mobile systems in the mix are iOS, Android and BlackBerry.

Browsers to test, in order of descending usage (Feb., 2011), are: Internet Explorer, Safari, Firefox, Chrome and Opera.

The extent of testing, considering the combinations of operating systems and browsers, will depend on website complexity and resources available to a particular department or group.

The following tools and validators are recommended or suggested for QAT:

Testing Tools - move these out of doc and link to them...

- Adobe BrowserLabs - https://browserlab.adobe.com/en-us/index.html

- browsershots.org, enter URL and check multiple browers on multiple operating systems. Browsershots is a good resource for testing Linux browsers.
- Web Developer Tools bars are available for most popular browsers as a downloadable plug-in, if not already "built-in." Chrome, Firefox, Internet Explorer (de-bugger).
- Utilu IE Collection (v1.7.0.9) available at several sites for download, provides stand-alone versions of Internet Explorer so multiple version may be used at the same time. Only necessary to install 6.0 and above for UNM testing.
- There is also a Utilu Mozilla Firefox Collection (v1.0.3.1) available.
- Vitual Machines or a computer running multiple Operating Systems and browsers are convenient for conducting tests.
- Google Analytics - Set up an account at google for your site and the number Google provides can be added to the UNM template for site analytics.
- crazyegg.com 30-day trial or purchase for website analytics with a few lines of code. Heatmaps help visualize where visitors are clicking on your page/site.

Code Validators

CSS, Mobile, Feed
http://validator.w3.org/unicorn/

CSS and XHTML
http://jigsaw.w3.org/css-validator/

Link Checker
http://validator.w3.org/checklink/

Markup Validation
http://validator.w3.org/

W3C Quality Assurance Tools - see this page for additional specific needs
http://www.w3.org/QA/Tools/

Quality Assurance Testing Checklist (link to downlaod file w/ the list Gabe R. created)

Outside Tools

The use of outside tools on your webpage is allowed. Examples of commonly used external tools are:
- Google Analytics
- Embedded YouTube videos

However, it is important to consider the following:

- What happens to your webpage if the service is temporarily unavailable
- Does the external tool cause increased load times for the page

It is recommended that you not use an external tool if a viable alternative is available from UNM. (a list needs to be compiled)

SEO Basics

Some basic Search Engine Optimization techniques can help increase the visibility of your website.

- Use keywords in your Page Title. Ensure these keywords also appear in your content. Every page title should be unique.
- Optimize your robots.txt file
- Use Alt tags appropriately
- Use descriptive anchor text. Avoid "click here", "read more", etc. Keep the anchor text under 55 characters.
- Use the title attribute in links. Using the title or a description of the linked page would be appropriate text.
- Use Header Tag properly. Only 1 <h1>, and properly nested <h2>, <h3> etc.
- Quality First Paragraph and meta description.
- Use search engine friendly URLs. The URL should be descriptive. Avoid using URLs like... site.unm.edu/p=232323

Please review Google's Search Engine Optimization Starter Guide for more information: http://www.google.com/webmasters/docs/search-engine-optimization-starter-guide.pdf

Documents for the Web

PDF vs Docx

The file format chosen should be based upon intended use and intended audience. PDF, Doc, and Doc(x) formats each have specific advantages and in many cases either format is acceptable.

When to use Adobe PDF
PDF should be used when high print quality is required. PDF can display high resolution images and illustrations better than doc or docx.

Documents scanned into a PDF format negate most of the advantages of PDF and should only be used when other methods are not available. In addition, documents scanned as PDF are not indexable by Google, have large file sizes, and text cannot be selected from the document

without Adobe Acrobat.

When to use Microsoft Docx or Doc formats

Microsoft Doc or Docx formats are best suited to documents that need to be edited and for general Word processing tasks.

Docx vs Doc
It is recommended that the docx format be used instead of doc format.   Docx is the latest file format from Microsoft and has considerable advantages over the older doc format. Compatibility packs are available for older versions of Microsoft Office and there a multitude of free tools that can read the docx format.

File Format Comparision

Document Type/Use/Need	PDF	Doc	Docx
Collaboration		x	x
Editable Forms*	x	x	x
Editing		x	x
Google Indexable	x	x	x
High Resolution Images	x		
Illustrations	x		
Image Extraction	x		
Legal Documents*	x	x	x
Letters		x	x
Memos		x	x
Printing	x		
Secured Document*	x	x	x
Small File Size*	x	x	x
Vector Graphics	x		
Word Processing		x	x

*Editable Forms: Adobe requires Adobe Acrobat to create editable forms.
*Legal Documents: Legal documents in doc or docx format must be protected to prevent changes. Documents authored in Adobe Acrobat may be malleable if not secured.
*Secured Document: Securing the document, protecting the document with a password and encryption, is inadvisable in some case. There are better methods for securing information.
*Small File Size: PDFs must be optimized for the web to achieve a small file size. Word documents saved as PDF may be much larger than the original Word format.

Document Filenames

Document filenames should match the title of the document. For example: A PDF document titled **UNM Web Standards** should have the filename **unm-web-standards.pdf**.

The use of dates and version numbers within the filename are discouraged. In most cases, there should be only one published version of any document at a given time.   Having only one published version of a document will improve data integrity, help prevent old documents from re-appearing, and prevent broken links. An archiving process may prove helpful when handling outdated documents.

If a date is used, it should be placed at the end of the filename when possible. For example: A PDF document titled **2011 UNM Web Standards** should be re-titled to **UNM Web Standards 2011** and have a matching filename of **unm-web-standards-2011.pdf**.

Dates should be used in the title and filename if the subject of the document is date specific. For example: A PDF document titled **UNM Department May 2011 Calendar** and named **unm-department-may-2011-calendar.pdf** would be an acceptable use of the date in the title and filename.

Document Properties/Metadata

Document properties/metadata, should be accurate when publishing a document to the web. Document metadata can be accessed using the Document Panel in Microsoft Word or by viewing the file properties with Windows Explorer. For PDF documents, the file properties can be accessed from File Menu --> Properties in Adobe Reader.

Metadata Fields
Author: Should be the Department, Program, or Faculty Member who created the document.
Title: Should match the title of the document.
Subject: Should be relevant to the document content.
Keywords: Content specific words that could be used when searching for the document. The words included should appear in the document text.
*Category: Should be relevant to the document content.
*Comments: Any other relevant information.

*Category and comments only exist in Microsoft Office documents.

Domain Names**Background**

Internet addresses, including domain names, are an important part of the UNM website effort.

Domain names used for institutional, academic and personal websites should reflect the proper relationship with the University.

Purpose

UNM has a legal and marketing interest in the use of its name and associated branding, including the proper use of website domain names. This standard is intended to ensure that domain names used in UNM websites promote UNM, its programs and services.

Standard Statement

1. UNM institutional, academic and personal websites should use UNM. EDU domain names in the form xxxx.unm.edu or xxxx.yyyy.unm.edu.
2. Domain names should accurately reflect the department, program or activities to which they refer.
3. Any UNM entity or individual wishing to use a non-UNM.EDU domain name will need to present the business case for the exception to the UNM Web Advisory Committee. The Web Advisory Committee is responsible for reviewing and recommending approval or disapproval and relay their decision to the entity or individual who made the request and to IT.

Procedures

1. Requesting a new UNM.EDU Domain Name - Main Campus, Branches, etc.
   a. Requested URL for your site or application:
      - Should be descriptive and not too long, for example department.unm.edu
      - Subject to availability and approval. Please have alternatives in case the requested URL is already in use.
      - Can not be of the form www.department.unm.edu unless your department already has a DNS zone.
      - IT reserves the right to assign a URL if necessary.

   b. Administrative Contact Information (must be the same as Department NetID owner)
      - Name
      - UNM NetID
      - UNM Email
      - UNM Phone

   c. Technical Contact Information (may be different than Department NetID owner)
      - Name
      - UNM NetID
      - UNM Email

- UNM Phone

2. Requesting a new UNM.EDU Domain Name - HSC
   a. The HSC policy regarding UNM.EDU domain names can be found in the HSC Web Development Policy: http://hsc.unm.edu/library/kmit/policies.shtml
   b. Questions may be directed to Kevin Wiley.

3. Requesting a non-UNM.EDU Domain Name
   a. The person making the request should contact the UNM Web Advisory Committee to   have their request placed on the agenda for an upcoming meeting.
   b. The person making the request should also prepare a written statement that outlines the specific business   case that they believe necessitates a non-UNM.EDU domain name. The request should include the desired domain name.
   c. This written statement should be provided to the UNM Web Advisory Committee one week prior to the date of their meeting with the UNM Web Advisory Committee to allow time for committee members to review the request before the meeting.
   d. If a non-UNM.EDU domain name is approved, the domain name should be purchased and registered with the approved UNM vendor. This allows for better management of the domain names.

Copyright

For information about Copyrights and Trademarks please visit the Office of University Counsel's copyright page.
http://www.unm.edu/~counsel/general/copyright.htm

Advertising

See UNM Advertising Guidelines (link coming soon?)