# Content Management Systems Best Practices

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### **GENERAL INFORMATION**

This manual is intended to help CMS users create and design CMS articles through informational and navigational design so that website visitors will have an overall positive experience. It seeks to bring together the best techniques and standards for usability web designs when building CMS articles.

This manual provides some web design and usability guidelines based on research and supporting information from the field. Each page provides:

- A best practices guideline
- Comments that further explain the guideline
- A example of the guideline in practice within CMS

## **Informational Design**

Informational Design is the practice of gathering, filtering, and presenting information in accordance with effective design principles in order to understand -and communicate to others - the essence, the meaning of that information.

Avoid using unfamiliar or undefined acronyms or abbreviations

### **Comments:**

Acronyms and abbreviations should be used sparingly and must be defined in order to be understood by all users. It is important to remember that users who are new to a topic are likely to be unfamiliar with the topic's related acronyms and abbreviations.

Use the following format when defining acronyms or abbreviations: Vocational Nursing (VN).

Acronyms and abbreviations are typically defined on first mention, but remember that users may easily miss the definition if they scroll past it or enter the page below where the acronym or abbreviation is defined.

### **Example:**

### Associate Degree Nursing



Candice Vinson, Clinical Teaching Assistant, helps Blanca Castillo, a Level III Associate Degree Nursing student.

### Amarillo College

**Associate Degree Nursing** 

### Registered Nurse

Associate Degree Nursing (ADN) offers a uniquely rewarding career as a Registered Nurse (RN) in a profession that is highly valued and respected. Amarillo College has outstanding classroom and clinical faculty members who give personal atention to each student. We are committed to helping students achieve their educational goals. Students completing the ADN curriculum are prepared to take the National Council Licensure Examination (NCLEX-RN) for licensure as a Registered Nurse (RN).

Amarillo College is accredited by the <u>Southern Association of Colleges and Schools (SACS)</u>. The ADN Program is approved by the Board of Nurse Examiners for the State of Texas. The ADN program received

The acronym "FAQ" is common and should only be used if you are sure that most of the users that visit your page are familiar with that term.

Note: Users using a blind-browser, an assistive browser that reads the screen to the user, will read an acronym. For example:

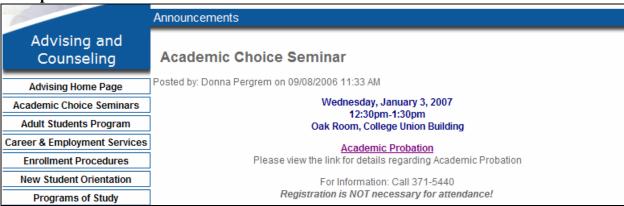
Word on the screen	What a blind-browser will say
FY	fie
VA	va (like the Spanish word for "go"

Make sure your content is current.

### **Comments:**

If you should use dates within your content, make sure that it is always current. Keeping content current is critical for providing accurate and timely information to the end users.

### **Example:**



This page was printed on December 18, 2006. Notice that the announcement is an event that will take place on January 3, 2007.

Text should be the standard default article manager format (Times New Roman, Small)

Use lower-case fonts and appropriate capitalization.

Bold text should be used sparingly.

### **Comments:**

When you are creating an article using article manager, the standard default text is Times New Roman, Small. Avoid using multiple fonts and text sizes within each page. This process will ensure visual consistency of the entire web site.

Use "mixed-case" fonts for reading text. This means that most letters will be lowercase, all letters that should be capitalized being in uppercase.

Use bold text only when it's important to draw the user's attention to a specific piece of information.

### **Example:**

### Sample

This block of text is an example of displaying continuous text using mixed upper and lowercase letters. It's not difficult to read.

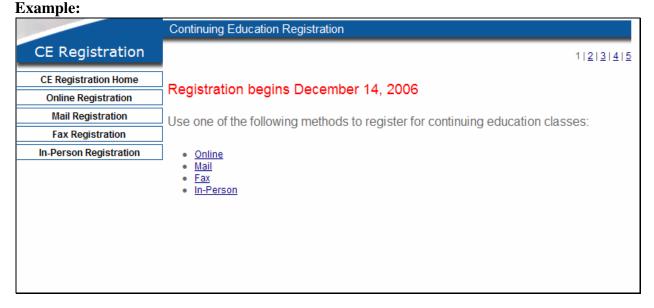
THIS BLOCK OF TEXT IS AN EXAMPLE OF DISPLAYING CONTINOUS TEXT USING ALL UPPERCASE LETTERS. IT'S MORE DIFFICULT TO READ.

Limit page information only to that which is needed by users while on that page.

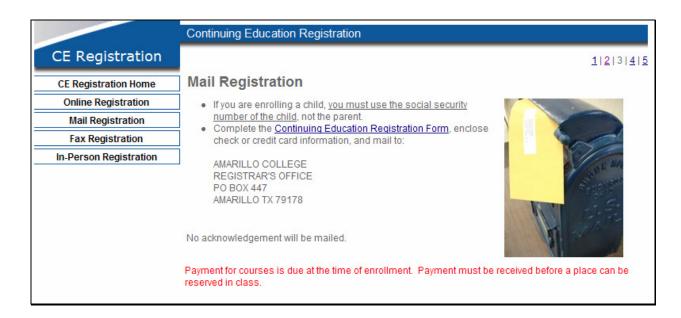
### **Comments:**

Do not overload pages or interactions with extraneous information. Displaying too much information may confuse users. Allow users to remain focused on the desired task by excluding information that is not relevant.

Bullet lists are much better than long passages of text. Create lists and then make words and phrases links so that users can click to other pages for more details. Group your content in digestible pieces. Small, bite-size pieces of information are the easiest to read on-screen.



When the user clicks on the "Mail" link, they are linked to an article that informs the user how to register for continuing education classes through the mail.



Avoid duplication of information already found in other areas of the website.

### **Comments:**

It is better to link to information that already exists in CMS, which is usually maintained by another faculty member, than to have duplicated information within CMS. If the duplicated information needs to be changed, all the duplicated documents will need to be changed throughout the entire website. It's better to have one centralized location for information that needs to be duplicated.

### **Example:**



The Curriculum link will link directly to the Curriculum page within the Programs branch of CMS. All the degree curriculums are within the Programs branch of CMS and are maintained by one person.

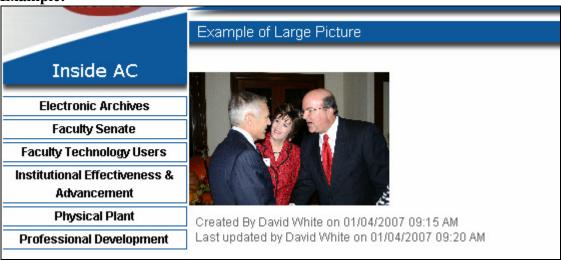
In the second				
	Medical Data Specialist			
Programs of Study	Program Advisor: Judy Massie, 354-6068 <u>massie-je@actv.edu</u> or contact the Allied Health Division, 35 6055	i4-		
Programs of Study	0000			
Transfer Programs	CERTIFICATE of completion			
Technical Programs	Major Code - MDSP.CERT			
General Degree Requirements	Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are			
General Education	based on the unique needs of the certificate program.			
General Education	This curriculum prepares the student as a Medical Data Specialist MDSP. The Medical Data Specialist			
Requirements Chart	schedules patients, files insurance, codes for federal and state reimbursements and collections, type: correspondence, transcribes from medical dictation, maintains telephone communication and collate:			
General Education Course List	files to maintain the patient srecord. Upon completion of this curriculum, a certificate will be awarded			
Catalog	A grade of C or higher is required for satisfactory completionof all courses. To continue in the program	а		
Curriculum Plans	student may repeat a required course only one time, and may repeat no more than two required courses			
Division Websites	while enrolled in the program. The term "repeat" shall be interpreted to mean re-enrollment following withdrawal, drop or an unsatisfactory grade from a class. A student seeking entry into the Medical Data			
Department Websites	Specialist program must file a specific program application and complete additional admission			
Course Syllabi	procedures as required.			
Advising				
Customized Technical Training				
External Learning Experience	SEMESTER HOU	JRS		
	MAJOR COURSE REQUIREMENTS	32		
	SPNL 1201: Health Care Spanish			
	HPRS 1205: Medical Law/Ethics for Health Professionals			
Faculty Handbook	MDCA 1220: Administrative Procedures I			
	MDCA 1221: Administrative Procedures II			
Amarilla Callaga Faculty	MDCA 1949: Madical Insurance I			

Images added to any webpage should not be larger than 400 x 400 pixels.

### **Comments:**

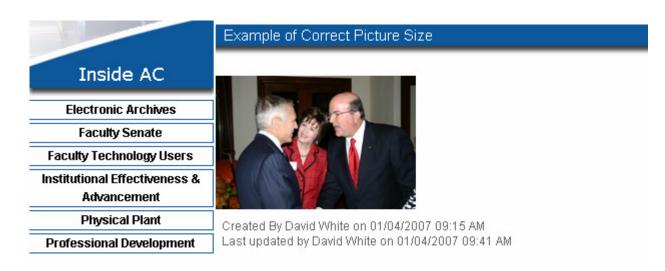
If an image is added to a webpage and is larger than 400 x 400 pixels, the image file size will be too large for some computers to download over the internet. There is an option to adjust the size of the image within the image galley, but it is suggested not to use this feature. This feature will simply resize the picture after it downloaded on the webpage defeating the purpose of tying to optimize image file size. For best results, simply resize the picture to the exact size needed for the webpage before uploading the image to the image gallery.





The image above of General Wesley Clark and President Steven Jones looks fine. However, the image within the image gallery is 2048 x 1360 pixels and 1.6 MB in file size and was adjusted to 200 x 133 pixels using the image dialog box within the article manager module in CMS.

This is a very large picture and will download extremely slow with a computer using a dial-up modem.



This is an example of using an image that was uploaded to the gallery with the exact picture size to be used within the webpage. This image of General Wesley Clark and Dr. Steven Jones was adjusted to 200 x 133 pixels before adding it to the gallery. The image is only 17.8 KB in file size. Since the image is the exact size needed for the webpage, the image is very clear and crisp.

This image will download on a computer using a dial-up modem very quickly.

Email links should be linked to a form using form generator.

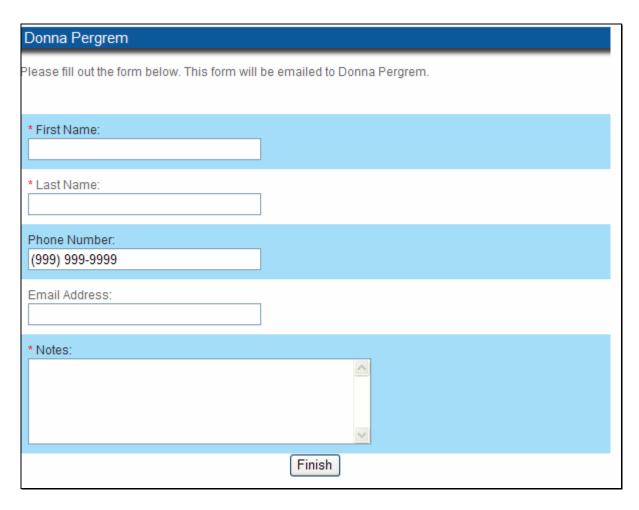
### **Comments:**

Providing contact names is a great way to allow users to contact faculty if they need help. The best way to provide email links is to link a form to printed text. The user will be linked to a form that will generate an email. Address-harvesting programs will find your email address if you simply type out your email address.

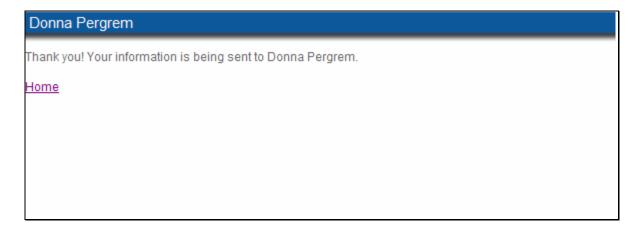
### **Example:**



In the example above the text "Donna Pergrem" is an embedded link to a form that was created using the form generator module.



When the user clicks on the text "Donna Pergrem" they have to fill out the above form.



When the user clicks "Finish" they are prompted with a message stating that the form was sent.



The image above is an example of the information that is emailed.

The form instructions, form questions, and the form submission message are created by you using the form generator module. The above images in this guideline are simply used as an example.

Note: This process is a good way to force the user to give you information that you may need in order to help them.

Avoid the term "click here" when adding a link.

### **Comments:**

To avoid user confusion, use link labels that clearly differentiate one link from another. Users should be able to look at each link and learn something about the link's destination. Using terms like 'Click Here' can be counterproductive.

Link text is frequently read out of context by users of assistive technology. So a link that reads "<u>Click here</u> for information on this" in the body of the page, appears as only "Click here" in a link list. Multiple "Click here" phrases on a page will make the process even more confusing.

Choose link text that makes sense out of content and describes where the link leads. Instead of "Click here for more information," try using "Get more information about us."

### **Example:**

### **Bad Example:**

### Campus Maps

### **Campus Information and Campus Maps**

- · Washington Street Campus click here
- · West Campus click here
- · East Campus click here
- · Polk Street Campus click here
- · Moore County Campus click here
- · Community Link click here
- · Hereford Campus click here

Note: In the above example, a blind browser set to Links List would say only "click here, click here, click here..."

### **Good Example:**

### Campus Information and Locations

- Washington Street Campus: 2201 S. Washington St.
- West Campus: 6222 W. 9th St.
- East Campus: I40, Exit 80
- . Polk Street Campus: 1314 S. Polk Street
- . Moore County Campus: 1220 NE 1st St., Dumas
- Community Link: 2412 N. Grand
- Hereford Campus: Ave. H and Grand St., Hereford

If you create a list of links, try not to have many links that start with the same word or phrase. Users have difficulty when all the links start with "how to" instead of action verbs.

### **Example:**

### **Bad Example:**

### Frequently Asked Questions

- · What is literacy?
- · How is adult literacy measured?
- · How literate is the adult population?
- . Where can I find out about literacy rates in my area?
- . How does literacy in the US compare with other countries?
- . How can I get funding for my adult literacy program?
- . How do I find a nearby literacy program?
- How do I start a literacy program?
- Where can I find tutoring materials?
- Where can my organization donate books?
- · Where can I get a poster about literacy?
- Where can I volunteer to work with adult learners?

### **Good Example:**

### Frequently Asked Questions

- · Literacy What is it?
- Volunteering Where can I volunteer to work with adult learners?

Use PDF files not Microsoft Word or RTF files when linking to documents for download. If the document is comprised solely of text and it's only a couple of pages long, enter the text in a CMS article. Don't make a user download a PDF if they don't have to.

### **Comments:**

If you have applications, forms, or other documents that users can download from your webpage, use PDF format rather than Microsoft Word or RTF. Not everyone owns Microsoft Office or other word processors. But anyone can download the free Acrobat Reader: <a href="http://www.adobe.com/products/acrobat/readstep2.html">http://www.adobe.com/products/acrobat/readstep2.html</a>

PDF files are smaller in size so they display faster, save bandwidth and avoid user frustration.

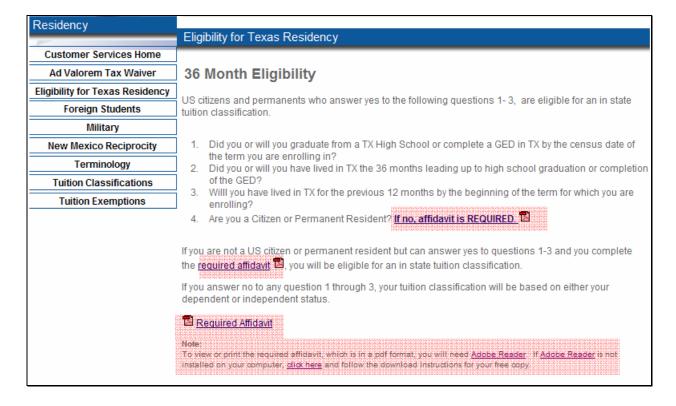
If you have a document that needs to be converted to a PDF, simply contact web services at ext. 5935

Clearly label links that lead to PDF's. Users with low processor speeds, slow internet connections, and older versions of Acrobat Reader may not want to wait for your documents to download and open. Additionally, users of assistive technology need to know if another program will be opening and that the navigation will be changing.

There are two ways to label PDF links:

- add "PDF" to the link text
- add the image symbol to the link text to indicate PDF. Be sure to include a statement that explains the symbol means PDF and a link to the download page of the latest version of Adobe Reader. (http://www.adobe.com/products/acrobat/readstep2.html)

### **Example:**



Avoid "Happy Talk"

### **Comments:**

Happy talk is the introductory text that's supposed to welcome us to the site and tell us how great it is, or to tell us what we're about to see in the section we've just entered. (Welcome! We're the best! We're sure you'll agree! Please come in and look around!)

This is just small talk-content free, basically just a way to be sociable. But most users don't have time for small talk; they want to get right to the beef.

Attempt to limit instructions when creating forms using the forms generator module. Every item on your form should be self-explanatory.

### **Comments:**

Most users will not read form instructions until after repeated attempts have failed. And even then, if the instructions are wordy, the odds of users finding the information they need is pretty low.

# Example: Before 103 Words

### Form Instructions:

"The following questionnaire is designed to provide us with information that will help us improve the site and make it more relevant to your needs. Please select your answers from the drop-down menus and radio buttons below. The questionnaire should only take you 2-3 minutes to complete. At the bottom this form you can choose to leave you name, address, and telephone number. If you leave your name and number, you may be contacted in the future to participate in a survey to help us improve this site. If you have comments or concerns that require a response please contact Customer Service."

The following questionnaire is designed to	The first sentence is just introductory happy		
provide us with information that will help us	talk. I know what a survey is for; all I need is		
improve the site and make it more relevant to	the words "help us" to show me that they		
your needs.	understand that I'm doing them a favor by		
	filling it out.		
Please select your answers from the drop-down	Most users don't need to be told how to fill in a		
menus and radio buttons below.	Web form, and the ones who do won't know		
	what a "drop-down menu" and a "radio button"		
	are anyway.		
The questionnaire should only take you 2-3	At this point, I'm still trying to decide whether		
minutes to complete.	to bother with this questionnaire, so knowing		
	that it's short is useful information.		
At the bottom this form you can choose to	This instruction is of no use to me at this point.		
leave you name, address, and telephone	It belongs at the end of the questionnaire where		
number. If you leave your name and number,	I can act on it. As it is, its only effect is to		
you may be contacted in the future to	make the instructions look daunting.		
participate in a survey to help us improve this			
site.			
If you have comments or concerns that require	The fact that I shouldn't use this form if I want		
a response please contact Customer Service.	an answer is useful and important information.		
	Unfortunately, though, they don't bother		
	telling me <i>how</i> I contact Customer Service – or		
	better still, giving me a link so I can do it from		
	right here.		

### After 41 words

Form Instructions:

"Please help us improve the site by answering these questions. It should only take you 2-3 minutes to complete this survey.

NOTE: If you have comments or concerns that require a response don't use this form. Instead, please contact <u>Customer Service</u>."

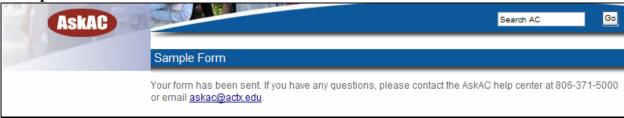
(The text "Customer Service" is a link to another webpage that will include all contact information for the Customer Service department. i.e. phone numbers, office location, email, etc.)

Include a submission message when creating a form using the form generator module.

### **Comments:**

When creating a form using the form generator module, include a submission message assuring the user that the form was completed and was sent. It's also a good idea to include contact information within the submission message in case the user has questions after filling out the form.

**Example:** 



Avoid using "Under Construction"

### **Comments:**

People are very good about making logical connections about the things that should be possible on a webpage. It's important for a webpage to inform users about information or functions that it does not contain if you believe that people will navigate to your webpage for information.

The basic principle is: If a webpage does not have information or a function some people would naturally tend to think it might have, then the webpage should include information about it.

### **Example:**

### Good:

# **Badger Boot Camp** Badger Boot Camp A fun and informative 1/2 day Session in the summer that includes Amarillo College information, fun activities, tours, lunch, entertainment, and prizes. There's a session for parents, too! Cost is \$15. Summer 2007 Badger Boot Camp Sessions Coming Soon! Email sessler@actx.edu or call 371 - 5322 for registration information.

The user would expect to find information about Badger Boot Camp within the website for student activities. When the user navigates to this page they see information about Badger Boot Camp, even though the dates have not been set. It would not have been a good idea to simply remove all information about Badger Boot Camp until the dates had been set.

### Bad:



While there is at the very least a title and picture for Badger Boot Camp that informs the user that they have found the correct location for information, there is no information for the user about Badger Boot Camp. This is a missed opportunity for Student Activities to provide information about how much fun it is to attend Badger Boot Camp.

Optimize article content for search engines.

### **Comment:**

Writing and preparing content for the Web requires a different approach from writing and preparing content for print documents and publications. On one level, you need to write good content, on the other level you need to write content to gain high rankings in search engines such as Google and Yahoo. This type of writing to gain rankings within search engines is called Search Engine Optimization (SEO).

Follow these examples when writing content:

### Example 1

### **Keyword selection:**

Each page of your branch should contain a variety of keywords embedded throughout your page that can be identified as strategic keywords. Identify one or two phrases or two or more words from each page as your strategic keywords. Think about words that users would type in search engines to find your branch, and include these words as strategic keywords in your articles.

### **Bad Example:**

### Medical Data Specialist

This program offers students the opportunity to enroll in a one year certificate program.

Students in the program serve a practicum in medical facilities within the city of Amarillo, as well as in other towns and cities throughout the Texas Panhandle. Students are required to successfully complete their classroom instruction and practicum prior to graduation.

Students are encouraged to begin the program during the Fall semester. Many classes require prerequisites, therefore, students should review the current college catalog to determine which prerequisites are required for classes prior to enrollment each semester. Students will not be allowed to enroll in these classes without fulfilling the required prerequisites.



If you are interested in applying for this program, please begin now to assemble your portfolio of application materials. If you would like an application for the program, you may download and print it by clicking on the <a href="mailto:application-link">application-link</a>, or you may feel free to contact the Program Director by phone at 806-354-6068, by e-mail at <a href="mailto:massie-je@actx.edu">massie-je@actx.edu</a> call the Allied Health Division Secretary at 806-354-6055.

### **Good Example:**

### Medical Data Specialist

The Medical Data Specialist program offers students the opportunity to enroll in a one year certificate program.

Students in the Medical Data Specialist Program serve a practicum in medical facilities within the city of Amarillo, as well as in other towns and cities throughout the Texas Panhandle. Students are required to successfully complete their classroom instruction and practicum prior to graduation.

Students are encouraged to begin the program during the Fall semester. Many classes require prerequisites, therefore, students should review the current college catalog to determine which prerequisites are required



for classes prior to enrollment each semester. Students will not be allowed to enroll in these classes without fulfilling the required prerequisites.

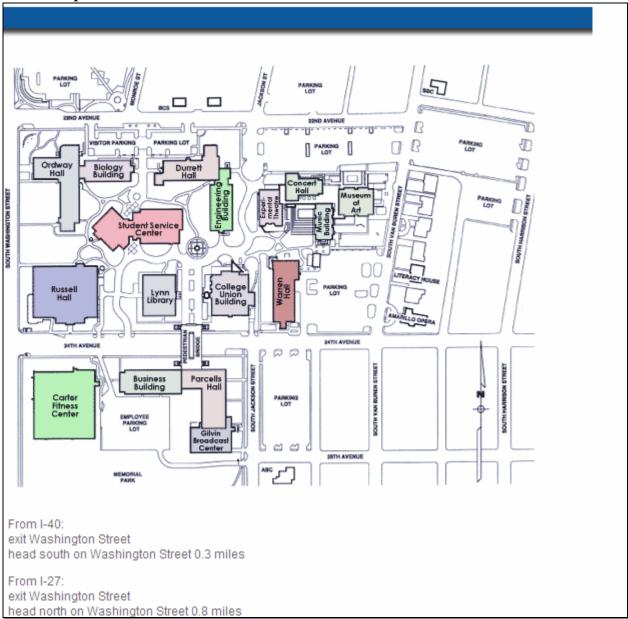
If you are interested in applying for this program, please begin now to assemble your portfolio of application materials. If you would like an application for the program, you may download and print it by clicking on the application link, or you may feel free to contact the Program Director by phone at 806-354-6068, by e-mail at massie-je@actx.edu call the Allied Health Division Secretary at 806-354-6055.

### Example 2

### **Use Article Titles and Section Titles**

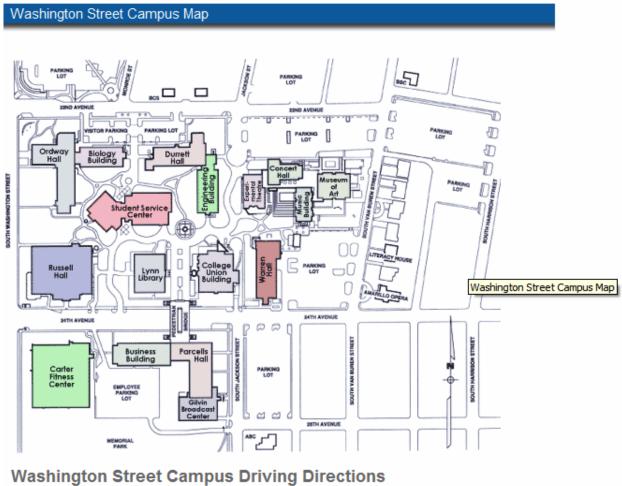
Search engines rank pages with relevant titles higher than web pages without relevant titles. The basic idea is that you are helping the search engine understand your web page through the page title.

### **Bad Example:**



The above is an article with an image showing the Washington Street Campus Map. Notice that the title is missing. A user will probably figure out that this is a map of the Washington Street campus. However, a search engine would not find this page due to the lack of titles and readable content.

### **Good Example:**



From I-40:

exit Washington Street

head south on Washington Street 0.3 miles

From I-27:

exit Washington Street

head north on Washington Street 0.8 miles

This article has a title of "Washington Street Campus Map" and a section title of "Washington Street Campus Driving Directions." The image has the alternative text "Washington Street Campus Map", which makes the image searchable. This page has been optimized for search engines.

# **Navigational Design**

Navigation design refers to the method used to find information within a Web site. A Web site's navigation scheme and features should allow users to find and access information effectively and efficiently.

Make sure the user can find information in just a couple of clicks. Avoid unclear or complex navigation; keep it simple.

### **Comments:**

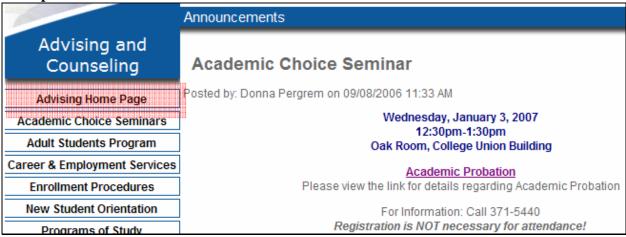
It's not the number of clicks it takes to get information but rather how *hard* each click is – the amount of thought required, and the amount of uncertainty about whether the user is making the right choice. Users don't mind a lot of clicks to get information as long as each click is painless and they have continued confidence that they're on the right track.

Create a "Home" menu link.

### **Comments:**

One of the most crucial items in your branch menu is a link that takes the end user back to the home page of the branch. Having a "Home" link in sight at all times offers reassurance that no matter how lost the end user may get, they can always start over. It's like pressing a Reset button or using a "Get out of Jail free" card.

**Example:** 



Note: If you combine the word "home page" to "homepage", blind browsers will read "hommapodge."

Take advantage of website navigational conventions.

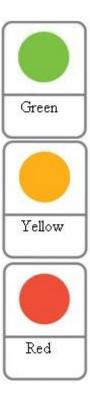
### **Comments:**

A website navigational convention is the consistent use of visual or technical navigational methods within websites that is universally accepted.

One typical navigation convention is underlining blue text within a webpage when the text is a navigational link. Though navigational links do not have to be underlined blue text, it's generally accepted that underlined blue text is a link.

If you're not going to use an existing website navigational convention, you need to be sure that what you're replacing it with is either so clear and self-explanatory that there is no learning curve, or adds so much value that it's worth a small learning curve.

### **Example:**



Take a look at this traffic light.

Let's assume that the green light at the top is blinking.

Will a driver follow the standard meaning of the colors, stopping on red and going on green? Or will a driver think the lenses had been replaced in the wrong order, and that the standard order should be obeyed? At best, a driver will have to watch the light for a full cycle to see which the case is.

Try the trunk test.

### **Comments:**

Imagine that you've been blindfolded and locked in the trunk of a car, and then dumped on a page somewhere on a webpage deep within your branch. If the page is well designed, when your vision clears you should be able to answer these questions without hesitation:

What site is this? (Site ID)

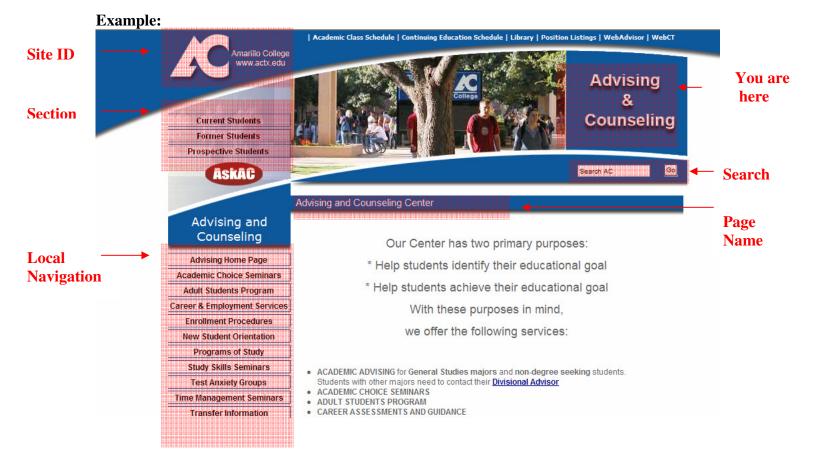
What page am I on? (Page name)

What are the major sections of this site? (Sections or menu items)

What are my options at this level? (Local navigation)

Where am I in the scheme of things? ("You are here" indicators)

How can I search? (Search box)



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