

# Suggestions for Making Your Team's Solar Decathlon Web Site a Winner

## Brainstorm and Think!

Who are your target audiences (users)? Although the contest requirements stipulate a consumer audience, you may want to design your Web site for more than just that audience.

- What do you want to accomplish? Yes, your Web site is part of a contest, but you may have goals in mind other than just winning the contest (e.g. attracting sponsors).
- What is your team's mission? What is its "brand?" What are your key messages? All of these ideas should be integrated into your content and be evident to the user—we're not talking about a boring bulleted list, here!
- What images and content will compel users to visit your site? Look at other Web sites for design and content ideas. Pick out samples that impress you with their content, navigation, and appealing design.
- What's the best way to organize site content? Remember, your site will change over time. Content will expand. Goals for the site may change. Think ahead and design your site so that it doesn't have to be redesigned later.

## Design for Usability

- Usability is the "total user experience" and involves all the components of a Web site: content, information architecture (content organization), and design.
- When you design and develop your Web site, you must remember that **you do not represent your users—their needs may be different than you think**. A Web site that has good usability is designed and developed with the user in mind. Here are some things to keep in mind as you design your Web site:
  - o Focus on the users' needs, tasks, and goals.
  - o Spend time on initial research and requirements—scope out the project (clearly define audiences, look at other sites for inspiration, get educated about Web site development).
  - o Emphasis should be on the iterative design process—research, scope, develop concept, test, revise, test, revise—a lot of this can be done on paper before you actually code anything.
- Take a look at these specific Web site usability resources recommended by the famous Web guru, Jakob Nielsen before you get started:
  - o <http://www.useit.com/jakob/webusability/>
  - o <http://www.useit.com/homepageusability/>
  - o <http://www.useit.com/books/>

## Repeat Daily, “Content is King”

- Fancy design, flashy Flash, groovy animation, and other Web site bells and whistles do not compensate for poor content
- Take a look at these specific Web development and Web writing sites before you get started:
  - The U.S. Department of Energy’s (DOE) Office of Energy Efficiency and Renewable Energy’s (EERE) Web writing guidelines: <http://www.eere.energy.gov/communicationstandards/web/writing.html>
  - *Sun Microsystems* Web writing guidelines: <http://www.sun.com/980713/webwriting/>
  - An online Web style guide: <http://www.webstyleguide.com/>
  - Jakob Nielsen’s Web site: <http://www.useit.com/papers/webwriting/>

## Be Original

- Write original content. It is okay to adapt material from other sources. But rewrite that material into your own words, so it is specifically focused on your Solar Decathlon project.
- Do not, under any circumstances, plagiarize. Do not cut and paste large slabs of text from another Web site or other published source. Plagiarism is usually very obvious to the user. Don’t gamble that the judges will miss it.
- Make sure you have not violated any copyrights. At the least, get written permission to use content from another Web site or other published source. Cite the source of that information on your Web site. Your school may have specific rules about using copyrighted material. You should find out what those rules are and follow them. Look at EERE’s information about copyright: <http://www.eere.energy.gov/communicationstandards/web/copyright.html>
- Create an original look. Don’t use just the generic ideas, images, colors, backgrounds, and fonts from some “Web-site-from-a-box” development software.

## Make it Work for the Web

- Read EERE’s tips for organizing, writing, and labeling your Web site content; notice how the tip pages follow the guidelines presented <http://www.eere.energy.gov/communicationstandards/web/writing.html>
- Make each page autonomous. In other words, don’t assume that the reader has read all the other pages of your Web site and will, therefore, understand a fleeting reference to a bit of information from another page. You can add hyperlinks to facilitate a user’s understanding of content.

- Optimization: Remember that your site will be indexed in search engines such as Google, Yahoo, and MSN Search. Follow EERE's online writing tips so your HTML pages will have good titles and summaries in search results. If your site includes PDFs or native file formats such as Microsoft Word, Excel, and PowerPoint, follow EERE's standards and recommended practices so these files will also have good titles and summaries in searches. Search engines are disregarding meta tags, so concentrate on writing good content instead of writing meta tags that describe your content.  
<http://www.eere.energy.gov/communicationstandards/web/writing.html>  
<http://www.eere.energy.gov/communicationstandards/web/pdfs.html>  
<http://www.eere.energy.gov/communicationstandards/web/native.html>
- Be concise and get to the point. Break up content into chunks that are both easy to find and easy to read. Web site users have less patience than readers of hard copy, because reading from a screen is more difficult, and it's just so darned tempting to "click" away.

## **Be Appropriate**

- Use audience-appropriate language. At least one of your target audiences is made up of average consumers. Make content friendly to average folks; they don't understand architect or engineer speak. Avoid highly technical language. Define terms where necessary. Avoid jargon always.
- Obviously, profane, derogatory, or otherwise insulting language is not appropriate
- Avoid critical and negative language
- Choose graphics carefully. Use the right graphic files (.jpg files for photos, .gif files for graphics, especially if the graphic contains text). Be sure to constrain the proportions of an image when it is resized. Don't rely on the HTML image size tag to determine the size of an image. The image size should be set in a photo-editing program.

## **Build in Added Attractions**

- Make it personal; maybe even use a little humor. Let the user know that your team is made up of real people. Intersperse photographs of the team doing stuff. Add entertaining captions. But use good taste and don't denigrate your project by giving it an unappealing nickname or by alluding to inside jokes.
- Add some interactivity. How about a quiz with instant feedback to the reader? Or an energy-saver calculator? But don't make interactivity too complicated—keep the number of clicks and load times to a minimum.
- Include links to other Web sites, if those other sites contain really appropriate material. Links can sometimes make your Web site fair better in search engines too. Be careful: the danger here is that the reader may find the other Web sites more interesting than yours and never come back.

## Test for Usability

- Testing your Web site on people who represent your target users is invaluable to creating an effective site.
- When to test? Early! The earlier you test, the easier it is to make changes.
- Who to test?
  - Not your team members!
  - Family, friends, sponsors, students and faculty, representatives from your school's media relations office. Testers should have at least average computer and Internet experience.
- What to test?
  - Ease and efficiency of use—can the users find the information they're looking for easily? With a minimal number of clicks? Is it easy to return to a previous page or to get to other pages on the site?
- How to test? Here's one inexpensive way:
  - Paper Prototypes
    - Hand sketches
    - Photocopies, print outs, or screenshots of early design concepts
    - Hardcopies or electronic files of content or content outline
    - Combination of any of the above.
  - Why Paper Prototypes?
    - Uses minimal resources
    - Easy way to try out multiple ideas
    - Facilitates buy-in: if you choose testers who are also sponsors, and people who want to follow the competition—people who will actually use the site—they will feel like they're going to make a difference, and they will feel more excited about being part of the project.
    - Validation—you know the design, architecture and content work.
  - What can be evaluated?
    - Information architecture (content organization)
    - Navigation
    - Naming, layout, groupings, and design of navigation elements
    - Content
    - Terminology and language
    - Get help from experts

- Recruit a student who is an experienced Web producer or who is studying Web design and development. Ask that person to assume ownership of the Web site.
- Contact the English or Communications Department of your school and recruit a strong writer and copy editor onto your Solar Decathlon team. Web designers, producers, and developers are not typically content providers. Find a writer to do the writing. (Remember: content is king.)
- Recruit a graphic designer onto your team—not all graphic designers can design for both Web and print; make sure you’ve got both areas covered.

## Wrap it Up

- Spell check programs are free, readily available, and easy to use. Run each Web page through a spell check.
- Spell check programs aren’t enough. Have a copy editor review the site for readability, spelling, and grammar.
- Systematically check all navigation and other links—this is an essential and painstaking process, even mind numbing, but it has to be done.
- Finally, when you finish creating your Web site, find someone who has never seen it before and whose judgment you trust. Ask him or her to read through your Web site. You’ll be surprised at the errors that person will find.

## Ongoing Maintenance

- Update content as frequently as is appropriate.
- Change the photos.
- Regularly check all links to ensure they are still functioning.
- Make sure the "Last Updated" message changes appropriately.
- Spell check, copy edit, and check all new links when you update the site.

## Additional Resources

Award-winning Web sites, Webby Awards: <http://www.webbyawards.com/>

Web Monkey: A How-to Guide for Web Developers: <http://hotwired.lycos.com/webmonkey/>

Introduction to HTML: <http://www.cwru.edu/help/introHTML/toc.html>

HTML Goodies: <http://www.htmlgoodies.com/>

New Architect Magazine; <http://www.webtechniques.com/>

User Interface Engineering: <http://www.uie.com/>

Cascading Style Sheets: <http://www.htmlhelp.com/reference/css/>

### *Online Publications*

WebReview.com: <http://webreview.com/>

E-newsletters and Internet.com: <http://e-newsletters.internet.com/>

WebDeveloper.com <http://www.webdeveloper.com/>

### *Print Publications*

Homepage Usability: 50 Websites Deconstructed, Jakob Nielsen. 2001 (113 guidelines for homepage design; available via <http://www.useit.com/> referenced earlier)

Web Design in a Nutshell, Jennifer Niederst. 2001

Learning Web Design: A Beginner's Guide to HTML, Graphics, and Beyond, Jennifer Niederst. 2001

HTML 4 for the World Wide Web, Fourth Edition: Visual QuickStart Guide (4th Edition), Elizabeth Castro. 1999

HTML & XHTML: The Definitive Guide, Chuck Musciano, Bill Kennedy. 2000

JavaScript: The Definitive Guide, David Flanagan. 2001

Cascading Style Sheets: The Definitive Guide, Eric A. Meyer. 2000

Information Architecture for the World Wide Web, Louis Rosenfeld, Peter Morville. 2002