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## **Making Your Website More Accessible**

**By Marilyn Arnone**

Before reading this column, it would be helpful to read Katie Parker's article in this issue of ESD entitled "Meeting the Needs of All Students: Universal Design for Libraries." Click on Specials --> Guest Writer to access her article.

I co-teach a course for graduate students enrolled in the School Media Program called "Integrating Motivation and Information Literacy." One of the assignments for our graduate students was to create a Web-based lesson plan that would give their elementary, middle or high school students an opportunity to practice information skills for online research. Creating the lesson plan was part of the assignment; the other part was translating the lesson plan into an actual motivating online lesson. We provided them with a Web building tool to minimize the need for technical skills. For the past several semesters, I've added a new topic to the agenda for that assignment - accessibility of the site they create. That is, their Web-based lessons had to be motivating to all learners, including those with disabilities.

To see how much the students, most of whom had teaching experience, already knew about accessibility issues, I gave them a little pre-questionnaire before presenting and discussing the topic. The results indicated that while everyone was aware of the need to serve all learners, they had little knowledge of specific accessibility guidelines or what they could do to improve accessibility of their own Web pages. They were enthusiastic about this topic but a bit anxious because, like many of us, they: a) were NOT programmers or techies, b) did NOT have a budget to hire one, and c) did NOT know that there are a few simple things anyone can do to improve this aspect of Web-delivered learning materials even without "a" or "b." If you are also a member of this group, read on.

Employing Universal Design for Learning (UDL) principles, such as multiple means of representation (of content), multiple means of engagement (motivation) and multiple means of expression (sharing the results of research, for example), will put you on the right path toward increasing accessibility for all learners (see Katie Parker's article in this issue which addresses UDL for libraries). Here are a few tips to get you started. Later, I'll give you two excellent resources for learning more about UDL and accessibility.

\* Keep the layout simple and uncluttered. Choose an organizational style that will help learners focus in on the key elements. Providing clear headings and small chunks of information at a time will help. Don't be afraid to have white space.

\* Make text readable and understandable.

\* Use text alternatives for all the images that you place on your Web page. Providing text equivalents is important; for example, to those learners using a screen reader, allow them to make meaning of all the elements of your site. In terms of UDL principles, this works toward the goal of providing multiple means of representation of your content. You can do this by using the alt attribute in HTML and typing a description of the image. BuLLder, a new tool for building online information literacy lessons (that does not require HTML or any programming skills), reminds you to do this if you try to place an image without providing a text description! BuLLder is a free tool located on the S.O.S. for Information Literacy site.

\* Alternative representations of content will not only help those with special needs but all learners. Try incorporating a video clip, an audio clip, a podcast, a graphic organizer or other presentation mode along with text to appeal to different learning preferences. Time constraints may prohibit you from doing this with all the content but including at least some variation will help.

\* Be consistent with navigation buttons.

\* Provide captioning for video. I found a reasonable online source to help me with this for many of the videos we make available at S.O.S. for Information Literacy. If you cannot afford captioning, there are other options you could try. Provide a transcript of the video. No time for that? At the very least, provide a text-based summary of the video. You should feel good about every effort you make to improve accessibility for all your learners.

\* Choose color combinations carefully. Understand that visual impairments make some color combinations less readable than others. Light letters on a dark background tend to be more readable than vice versa for many with visual or color deficits. I found Lighthouse International's (an organization dedicated to helping people overcome the challenges of vision loss) information pages on Effective Color Contrasts and Designing for People with Partial Sight to be very helpful.

\* Choose animation elements wisely. Animations repeated over and over may also be bad for some people. I asked a professor who was an expert in accessibility issues to take a look at a Web site project in the making at the Center for Digital Learning. I thought the animation was pretty cool including the link text that expanded when you rolled the mouse over it and circles animating around a globe repeated every two seconds. He didn't agree. He felt that for some learners with neurological

problems, this could be problematic. We took all the animations off that page with the exception of a subtle highlight on the logo. It was a good feeling knowing that was the right thing to do!

\* Make all your links mean something when read out of text. I've been guilty in the past of naming a link "Click Here" on occasion but now realize that it means nothing if read out of context.

The above tips refer to some of the easier things we can do with little technical experience or budget. For an in-depth explanation and examples of accessibility guidelines and their implementation, visit the WAI site (Web site Accessibility Initiative). Some recommendations will require more technical knowledge than those mentioned in this column.

The Center for Applied Special Technology (CAST) is a leader in UDL and the organization's Web site has many resources you can use to improve your knowledge and application of UDL principles in the design of your information skills online lessons.

Once you begin increasing your own awareness of accessibility issues and begin implementing even small changes to improve this aspect of your online lessons, you may discover that you start challenging yourself to find even more ways to improve your site for learners. If all of us begin to include as many guidelines as we can, we will make a significant contribution to the movement for a more accessible World Wide Web.

### **About The Author**

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