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Understanding the Accessible Technology Initiative

xtine burrough

ATI: Policy, Formatting, and Design

In short, accessibility is about serving as many students and members of the public who use campus facilities as is possible, within our resources. For the campus community, accessibility may be introduced as **policy** and implemented in instructional materials by adhering to **formatting** and **design** standards suitable for a variety of readers or users.

Policy

Accessibility is a child of the universal design movement started by architects and mimicked by educators who created standards for universally designed classrooms and accessible instructional design. The CSU Accessible Technology Initiative regards accessibility as a pedagogical imperative, and aims to ensure compliance with the 1998 amendment (Section 508 laws) to the Rehabilitation Act of 1973.[i] "By signing Executive Order 926, CSU Chancellor Charles Reed confirmed the CSU's commitment to accessibility and cited that Section 11135 of the California Government Code was amended (by Senate Bill 302, Chapter 784, Statutes of 2003) to clarify that Section 508 of the 1973 Rehabilitation Act applies to the CSU."[ii] California State University, Fullerton is currently in phase two of the CSU Accessible Technology Initiative, which focuses on implementation by way of ATI staff and consultants, experts and respected authorities, and campus coordinators.

Everybody Benefits

Accessible design affects all types of users. It is not limited to an audience consisting only of disabled students. In *The Universally Designed Classroom: Accessible Curriculum and Digital Technologies,* authors Meyer and Rose demonstrate the benefits of universal design with a case study: the growth of television captioning as a standard component on all new consumer televisions. Television captioning was first developed for a targeted audience of people with hearing impairments. Consumers interested in captioning had to purchase expensive add-ons for their televisions in order to access captioning. Later, the "add-ons"

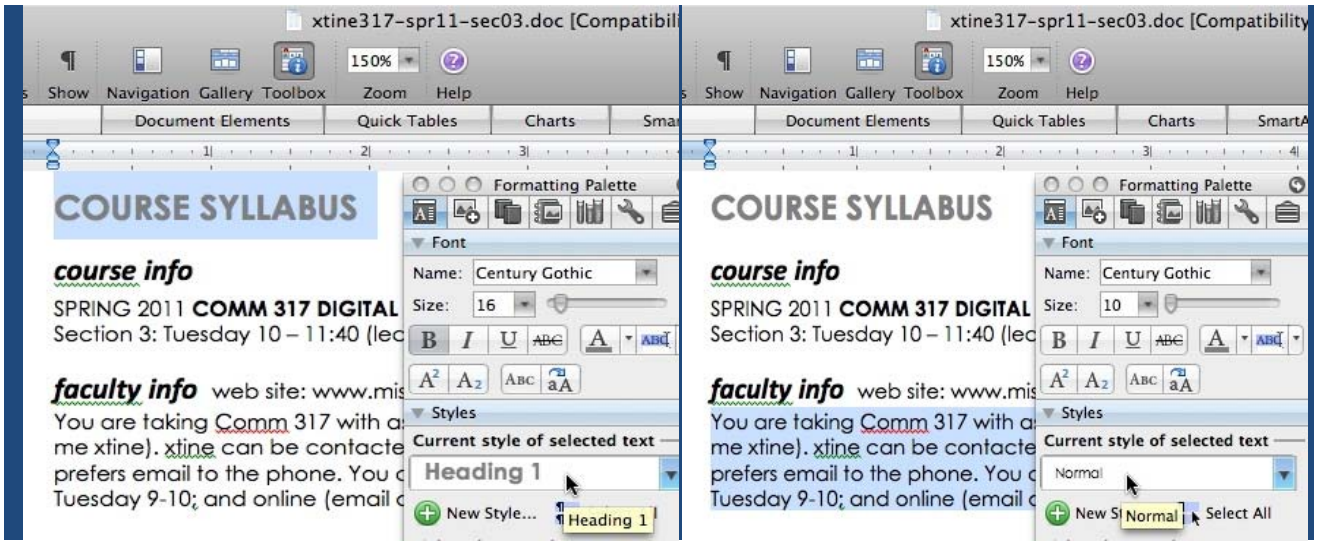
were built into standard television sets, which diminished the price of the technology, resulting in product enhancement for a wide range of customers. Now captioning is used widely in public spaces such as gyms, airports, and waiting rooms, as well as in private for learning a language, or watching a program with reduced volume.[iii] The lesson is that consumer design meant to aid the function of a product for a niche audience increases the functionality of the product for the general public in ways that surprise the product developers. As faculty, we can assume that all students have the capacity to benefit from instructional materials designed to fit accessibility standards. We may not predict how these materials will benefit a range of future students, but we can be sure that what is helpful for just one student will likely be helpful for many others.

Formatting: Where to Begin?

Accessibility is achieved by using digital mark-up in instructional materials for a variety of "readers" and by offering students multiple points of entry (or access) to course content. Readers may be students who read the syllabus from a computer screen, students who print course materials to read on paper, or students using adaptive technologies, such as a text-to-speech or text-to-American Sign Language device. In some instances, "readers" may be better described as "listeners" or "users."

Revising course materials is more difficult than starting anew. So begin by creating a new digital document. The following tips will help you adhere to accessible standards in Microsoft Word – consider implementing the following strategies the next time you write a syllabus.

Formatting Strategy 1: Use Styles



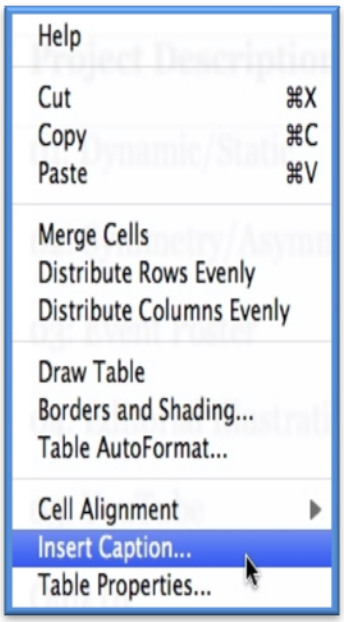
The Styles section of the Formatting Palette in Microsoft Word is significant. It adds semantic mark-up (or code) to the document that provides information for a digital reader about various sections of the text. While it may seem as if the differences between the styles *Heading 1* or *Normal* are simply a matter of visual formatting, the styles actually add code to the document to signify a change of formatting. Styles control the visual design

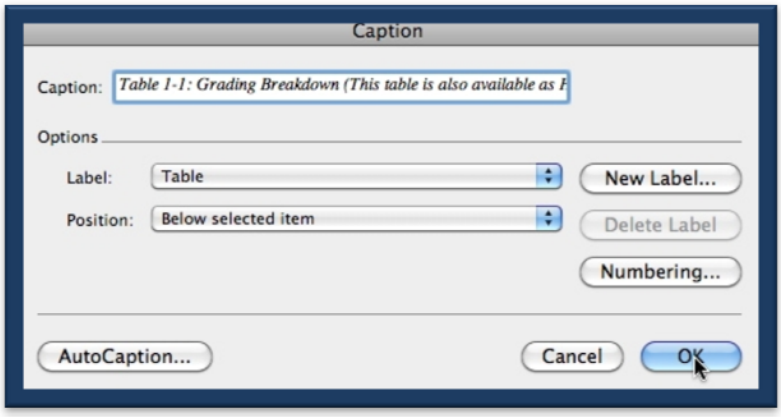
within a document *and* communicate an idea about styled elements, such as "this selection of text is a heading," or "this selection of text is a caption." Students who use adaptive technology devices, such as a text-to-speech reader, greatly benefit from this additional mark-up. They are able to scan a document for headings and captions, just as a sighted-student would by looking for large or bold visual cues.

Formatting Strategy 2: Captions, Labels and Alternative Text

Project Description	Value	Overall Scale
01: Dynamic/Static	2 points	I will not be utilizing plus/minus grades, as in the following scale:

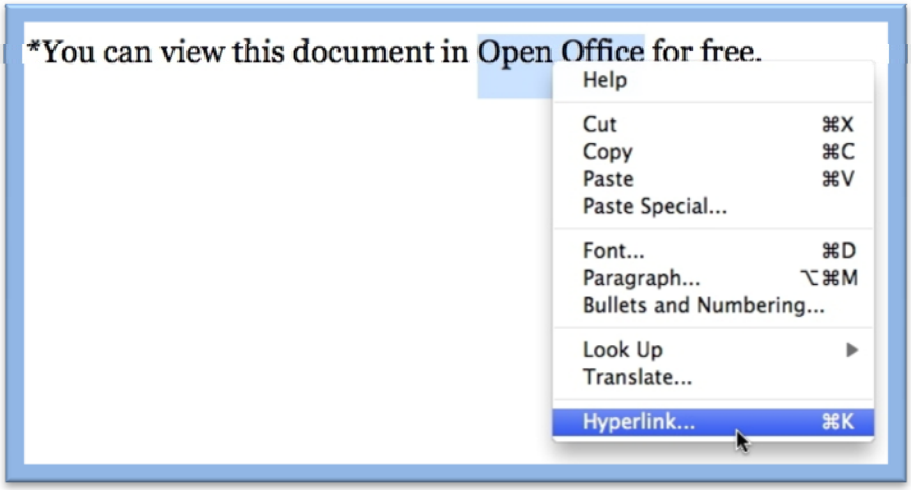
Captions, labels, and alternative text should be applied to anything that would require a description in the case of a reader using adaptive technologies. Tables and images are commonly sorted or labeled with captions and ALT descriptions. You do not need to label every image in your document, but anything that is significant to the course (for instance, materials that contribute to a pool of test questions) should be accessible.





Formatting Strategy 3: Alternative Viewing Options

Aside from using styles, captions, and alternative text, you can also help your students by reminding them of their options for viewing or using digital materials. While most students have Microsoft Word, we cannot assume that the software is installed in every student's computer. Athough there is no downside to adding a link (on Blackboard or in your syllabus, for instance) to Open Office or Acrobat Reader, the upside is it may help a student learn of new options, and it demonstrates your commitment to providing access for all students.



Design & Legibility

Keeping accessibility in mind when preparing handouts and online content may seem obvious to a sensitive educator, but accessibility can also be aided with a practice that takes design and legibility into account when developing presentation materials. On-screen presentations, including PowerPoint documents, and printed signs posted on campus should be accessible to students and campus facility users.

For on-screen presentations, you can increase the legibility of your instructional materials by implementing the following strategies.

- **Design & Legibility Strategy 1: Size Matters.**

Use the *Comfortable Viewing Distance for Text on Presentation Visuals* chart developed by Dave Paradi to determine the smallest point size to use when formatting type for your classroom.[iv]

- **Design & Legibility Strategy 2: Contrast is King.**[v]

Avoid ambiguity in the contrast of values between background colors or images and foreground materials (usually text). Black on white or white on black is easy to read because of the extreme contrast in values. If you use a range of colors, make sure you present a dark value (for instance, dark text) on a light value (a light background). The same rule applies for headings and subheadings—the contrast in sizes, typefaces, or values should be obvious at a quick glance.

- **Design & Legibility Strategy 3: Serif or Sans Serif?**

Eye-tracking studies have demonstrated that on-screen readers find sans serif fonts easier to read than serif fonts, while the reverse is true for printed body copy text.[vi] Try setting the body copy of your next on-screen presentation in Verdana, Helvetica, or Arial. (Note: of course some students will print your screen-presentations rendering this a "glass half empty" situation). You can still use your favorite serif font for headings or small type elements. In terms of viewing body copy, reading a box of type is the visual equivalent of seeing a shaded rectangle. In fact, projected or on-screen letterforms are made of pixels,

small squares of color, rather than free-form lines that can be drawn in ink. Sara Dickenson Quinn reminds us that reading pixels results in a loss of subtlety as compared to reading text (especially a serif font) on paper. "At the size of body text, the long, vertical spine of the letter "k" for example, might be converted to either one or two pixels wide — nothing in-between. Subtleties are lost, along with readability."[vii]

On Campus Resources

As my colleague Kristin Stang often says when we make presentations on the Accessible Technology Initiative together, "ATI is not one person's responsibility." The CSU supports a collaborative approach to learning and implementing standards to reach ATI campus goals. One goal is for all instructional materials and instructional websites for all course offerings to be accessible by Fall Term, 2012.[viii] This seems awfully soon, but there are on campus resources for faculty new to ATI.

The Faculty Development Center offers workshops, presentations, hand-outs, and online screen-casts about implementing standards in instructional materials to meet accessibility guidelines. Brian Resnik is the Information Technologies full time staff assigned to the ATI group. Dr. Kristin Stang is a Faculty Coordinator who works with Mr. Resnik to help reach the goals set forth by the Accessible Technology Initiative. The CSU hosts a web page with resources for faculty new to designing and formatting electronic materials while adhering to accessibility standards.ix While this may seem like a burden, it is a simple matter of developing new digital habits. Once you learn how to build Word and Power Point files that meet accessibility standards, formatting new documents to meet these standards will become second nature; and our campus will be more accessible. If all of our Fall Term 2011 syllabi are accessible, we may even meet the Fall Term 2012 deadline for full accessibility in all instructional materials.

About the Author

xtine burrough is a media artist, educator, and co-author of Digital Foundations: Intro to Media Design with the Adobe Creative Suite (New Riders/AIGA 2009). At CSUF she bridges the gap between histories, theories, and production in communication design and new media education. Her commitment to accessible technology began during her first full-time job as a web designer in 1997. As the Faculty Coordinator supporting the Accessible Technology Initiative (ATI), xtine is creating a cohesive set of guidelines for faculty new to creating digital files in compliance with accessibility standards. She is available for workshops, demonstrations, and presentations (cburrough@fullerton.edu).