

# Universal Design in a Nutshell

## Creating Accessible Documents

A few small tweaks help to ensure that students won't face any challenges in reading your documents. The tips below can apply to printed documents, but they're especially important for digital text. A well-formatted digital document can be read by text-to-speech software commonly used by people with low vision, brain injuries, and some learning disabilities.

### Three Ways to Get Started

#### 1. Use your software's formatting tools—especially styles—to create headings and sub-headings.

Text-editing programs such as Microsoft Office and Google Docs use *styles* to apply predetermined formatting to text, creating titles, subheads, bulleted lists, numbered lists, and more. When you use styles instead of manually formatting text, you make the text readable to text-to-speech software, including screen readers used by the blind.

#### 2. Make sure that the document text is “live,” not an image.

Can you highlight text in your document, copy it, and paste it elsewhere? If so, it's probably “live” text that can be read by text-to-speech software. If the text can't be copied and pasted, it's probably an image, which can't be read by such software. Whenever possible, give students live text.

#### 3. Use high-contrast text, and use color sparingly.

People with low vision or color blindness have difficulty reading small or low-contrast text. While some users can adjust the color and size of text on a digital screen, best practice is to use very dark gray text on a white background. Avoid using color alone to convey meaning (e.g., red = important). Avoid opposite color combinations (e.g., blue text on an orange background, or red text against a green background). Such combinations may be difficult for colorblind users to perceive; they may trigger migraines in other readers.

Turn the page over for more information  
on creating accessible documents.



Want more help with universal design?

Visit [idea.boisestate.edu](https://idea.boisestate.edu)

and contact the instructional design consultant  
assigned to your department.



**BOISE STATE UNIVERSITY**  
INSTRUCTIONAL DESIGN AND EDUCATIONAL ASSESSMENT



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## Three students, one accessible document

Emily, a student with a traumatic brain injury, opens in her iPad a case study her professor has provided as a Google Doc. She uses iPad's VoiceOver to read the document aloud while she follows along with her eyes.

Rodrigo, who is blind, opens the same doc with the JAWS screen reader. He skims the headers and subheads, then returns to the top and listens to the entire document at his preferred speed of 300 words per minute.

Laurie, who experiences migraines and the declining vision that accompanies middle age, downloads the same document, then uses Microsoft Word to enlarge the text before printing it out and annotating it with a pen.

Although all three of these students have disabilities, none needed to ask the instructor for accommodation. A single, well-formatted document met all their needs.

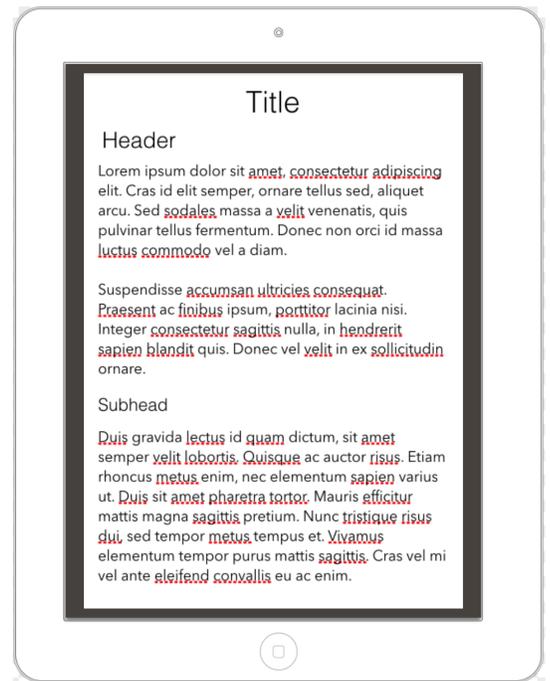
Hundreds of Boise State students registered with the Educational Access Center use speech-to-text software to access digital content and read ebooks. It's likely hundreds or thousands more students not registered with the Center use built-in accessibility features on their devices to better view or listen to digital texts.

## Resources

For more information on making your course materials, activities, and assessments accessible to all students, visit "[Accessibility and Universal Design for Learning at Boise State.](https://accessibility.boisestate.edu/)" (<https://accessibility.boisestate.edu/>)

For more on text contrast, read "[Why Contrast Matters](https://mrwweb.com/why-contrast-matters/)" by Mark Root-Wiley. (<https://mrwweb.com/why-contrast-matters/>)

To see how low-vision users access text on a computer, watch "[How Blind People Use Computers](http://bit.ly/2qRzeOZ)" by Ross Minor. (<http://bit.ly/2qRzeOZ>)



*An example of a simple but well-formatted document that uses high-contrast text and pre-formatted headers, as viewed on an iPad.*

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