



Guest Editorial: Create Accessible Materials with Microsoft Word

by Neil Soiffer

Every student spends part of his or her school day using math skills in math, science, and other subjects. Most of these students have no problem reading from textbooks and instructor-produced materials, but how do you accommodate a student who can't see the material?

Federal laws and some state laws require that individuals with disabilities have equal access to education¹. With or without the law, most educators naturally want to provide adequate accessible materials to students with print disabilities. Math educators are no exception -- the sticking point isn't the desire, but rather the knowledge needed to create such accessible materials.

If your educational institution has Disabled Student Services staff available, the task of creating accessible materials may be overseen by someone else. But in many cases, you may be in the position of having to create your own accessible materials. Fortunately, it's not a difficult task.

The first thing you should know is that there are standard formats for accessible documents, the most important being the DAISY format². DAISY stands for **D**igital **A**ccessible **I**nformation **S**ystem, and is a standard for representing accessible materials for individuals with visual and learning disabilities. The latest version of the DAISY standard specifies how to represent mathematics as well.

With a free Word add-in from Microsoft³, creating DAISY "books" that don't contain math is as easy as choosing the Save as DAISY command in Word. This command saves the document as a DAISY Digital Talking Book, ready to be used in a DAISY player. For material containing math, another piece of software is required. MathDaisy⁴ enhances the Word-to-DAISY conversion process, converting the equations in the document to MathML⁵ as required by the DAISY format.

Your students may or may not be familiar with DAISY and DAISY players. There is probably someone at your college whose job it is to assist disabled students, and they can be a great source of help and information. The main thing your students need to know is that all they need is a MathPlayer-enabled⁶ DAISY player. Currently there are two such DAISY players⁷, with more on the way.

There is a tremendous amount of information on the web about accessible materials and their various formats. In addition to the DAISY website, other good sources of information are the NIMAS website⁸ and the Design Science website⁹.

AMATYC does not specifically endorse any commercial product.

¹At least three Federal laws mandate equal access to education in the United States: Americans with Disabilities Act (ADA); Section 504 of the Rehabilitation Act of 1973, as amended; and the Individuals with Disabilities Education Act (IDEA).

²DAISY Consortium: www.daisy.org

³Download "Save as DAISY" (Windows only): www.daisy.org/projects/save-as-daisy-microsoft

⁴More information and download free trial of MathDaisy: www.dessci.com/mathdaisy

⁵MathML: Mathematical Markup Language. See www.w3.org/Math

⁶MathPlayer enables Microsoft Internet Explorer to display mathematical notation in web pages, and it enables DAISY players to speak the math as it reads the document.

⁷As of this writing, the only 2 MathPlayer-enabled DAISY players are gh PLAYER (www.gh-accessibility.com) and the Dolphin EasyReader (www.yourdolphin.com).

⁸NIMAS: National Instructional Materials Accessibility Standard. <http://nimas.cast.org>

⁹Solutions for the Accessibility Community: www.dessci.com/accessibility