

## Multimedia Texts Address Learning Disabilities

Researchers in Kentucky are studying new ways to convert print textbooks to digital versions to help students with "print disabilities," an umbrella term for a variety of physical, visual, and or learning issues that interfere with the ability to read print.

### INPUT

Digital  
Math Text

MathML  
encoding

MathML  
Display  
Engine

Web Browser

### OUTPUT

#### MATH FORMULA

$$A = x^2 + \frac{\pi x^2}{2} + 8x^2 \frac{\pi x^2}{4}$$

#### SYNTHETIC SPEECH



#### ANIMATED HIGHLIGHTING

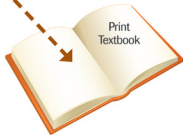
1.5. A square surrounds a circle with a radius  $r$ ...

SOURCE: Education Week

Digital Textbook without MathML



Print  
Textbook



Accessibility Software  
with text-to-speech via Web browser