DIAGRAM Center: Making Image and Graphical Content Accessible

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Images Are Tough
About Benetech

- Technology Serving Humanity
  - Human Rights
  - The Environment
  - Literacy
What Is Bookshare?

- A global online library of books and periodicals for readers with print disabilities
  - 210,000 members
  - 41 countries / Partnerships in 14
  - 165,000 books (90,000 digital files from publishers)
  - 200 publishing partners
About DIAGRAM

● 5-year Research & Development Center
● Funded by the Department of Education, Office of Special Education Programs
● Launched May 2010

● Our Partners
  – WGBH’s National Center for Accessible Media (NCAM)
  – U.S. Fund for DAISY
The DIAGRAM Team

- 27-member Advisory Board
- 6 Working and Interest Groups
DIAGRAM’s Focus

- Tools
- Standards
- Best Practices & Research
The Goal

Make it easier, faster, and cheaper to make and use accessible images so that students with print disabilities have timely access to the information they need.
Make “born digital” mean “born accessible”
Tools

- Poet: A Tool for Crowdsourcing Descriptions
- Image Accessibility Coverage Checker for DAISY Books
- Tobi Integration: DAISY Tool for Multi-media Production
How Poet Works

Figure 5.22 Data may be recorded from an experiment in a data table. Then, the data may be plotted on a graph to make it easier to interpret. Using Tables and Graphs: If at what time of day is the rate of water released by leaves equal to the rate of water absorbed by roots?
LAUNCHED FALL 2011

AS OF OCTOBER 2012:
– 31,000 image descriptions created
– 21 described textbooks
– Over 100 active image description volunteers

IMAGE SLAMS!
About this description
Author: John Doe, Ph.D. in Water Engineering
Target Age: 9-12
Target Grade: 4-7

Summary
The image depicts the cycle of water evaporating, turning into clouds, falling back to earth in the form of precipitation and being filtered through sediment.

Long Description
The image depicts the natural process of evaporation and precipitation and how rain water gets filtered and cleansed through the earth's sediment.

On the left-hand side of the image is a lake...

A weather event such as a rainstorm eventually returns the precipitation to the ground...

The natural filtering agents in the soil...

Annotation added by teacher
In the winter we get snow instead of rain.

Simplified Language Description
The image shows how water becomes clouds, then rain, and then gets cleaned by the soil.

Tactile Image
[Tactile image]
In the upper left corner of the tactile...

Simplified Image
[Simplified image]
Moving front the top left corner of the image
Best Practices & Research

- Training webinars
- Product evaluation matrices
- User survey on reading technologies
- Report on metadata images
What’s Next -- Tools

- Content Model Support
- Support for EPUB 3
- MathML
- Image Accessibility Coverage Checker
- QR Codes
- Simplified Math Notation System
- Field Testing
What’s Next -- Standards

- EPUB 3 Accessibility
- Advocacy
- Reference Implementation
- Integration Opportunities
How Can You Get Involved?

**DIAGRAM**

- Follow @DIAGRAMC on Twitter
- Pilot DIAGRAM tools
- Advocate to standards bodies
- Join a Working Group
- Get updates and spread the word
- Contact info@diagramcenter.org for more information

**Bookshare**

- Become an Image Describer!
- https://diagram.herokuapp.com/
- Become a Quality Reviewer for image descriptions
- Volunteer with Bookshare
- http://www.bookshare.org/_/volunteer/signUp
• DIAGRAM Center  www.diagramcenter.org
• Poet  http://diagramcenter.org/development/poet.html
• National Center for Accessible Media (NCAM)  http://ncam.wgbh.org
• DAISY Consortium  http://www.daisy.org
• IDPF  http://idpf.org
• Benetech  http://www.benetech.org
• Bookshare  http://www.bookshare.org
• “508 Compliance” by Katie Cunningham, O’Reilly Media, 2012
THANK YOU!

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