OER and Accessibility: Designing Equitable Foundations for Open Education

Christopher Barnes
Gettysburg College

Follow this and additional works at: https://cupola.gettysburg.edu/librarypubs

Part of the Scholarly Communication Commons, and the Scholarly Publishing Commons

Share feedback about the accessibility of this item.

Recommended Citation
https://cupola.gettysburg.edu/librarypubs/101

This open access conference material is brought to you by The Cupola: Scholarship at Gettysburg College. It has been accepted for inclusion by an authorized administrator of The Cupola. For more information, please contact cupola@gettysburg.edu.
OER and Accessibility: Designing Equitable Foundations for Open Education

Abstract
Presentation on OER and accessibility given at the ACLCP Fall Conference in Harrisburg, Pennsylvania, on Friday, 26 October, 2018.

Keywords
OER, accessibility, open education, universal design, POUR framework, user experience

Disciplines
Scholarly Communication | Scholarly Publishing

Creative Commons License
This work is licensed under a Creative Commons Attribution-Noncommercial 4.0 License

This conference material is available at The Cupola: Scholarship at Gettysburg College: https://cupola.gettysburg.edu/librarypubs/101
OER and Accessibility

Designing Equitable Foundations for Open Education

Christopher A. Barnes, PhD
Scholarly Communications Librarian
Gettysburg College
ACLCP Fall Conference 2018
CC-BY-NC 4.0
Open Access Week 2018
Designing Equitable Foundations for Open Knowledge
October 22 - 28
Which kind of accessibility?

“When you and the Executive Committee use the term ‘accessibility’ to describe the topic, are you envisioning a day devoted to issues like paywalls and high textbook prices, or a day focusing on barriers of access (to OER) for those with physical disabilities and learning differences? Or do you hope to have us discuss the intersections of those two important topics?”
"When you and the Executive Committee use the term 'accessibility' to describe the topic, are you envisioning a day of issues like printer prices, high textbook costs, or focusing on barriers to access (to OER) for those with physical disabilities and learning differences? Or are you hope to have us discuss the intersections of those two important topics?"
“Open is about enabling everyone, everywhere to freely use, share, and build upon knowledge in any way they can imagine.”

- Nicole Allen
  Director of Open Education
Defining Open Resources

OPEN
FREE + REUSABLE

5 Rs
Retain
Reuse
Revise
Remix
Redistribute

“Holding the Line on Open”
Truly and Fully Open?

- Creative Commons licenses
  - Should works licensed as **CC-BY-ND** be considered fully open?
- File format
  - Can works in **PDF format** be considered truly open if someone needs to purchase Adobe software to edit them?
- Locking OER behind paywalls
  - Should content with a CC license still be considered fully open if students are made to access it via a **closed, commercial LMS**?
Defining Access in relation to Open

“The focus of many open textbook projects is to provide access to education at low or no cost. But what does access mean? If the materials are not accessible for each and every student, do they fulfill the mandate to deliver fully open textbooks?”

Introduction, BCcampus Accessibility Toolkit (2nd Ed.)
Expanding the Definition of Open

OPEN = FREE + REUSABLE

5Rs
- Retain
- Reuse
- Revise
- Remix
- Redistribute
Expanding the Definition of Open

FULLY OPEN = FREE + REUSABLE + ACCESSIBLE

5Rs

- Retain
- Reuse
- Revise
- Remix
- Redistribute
Expanding the Definition of Open

FULLY OPEN = FREE + REUSABLE + ACCESSIBLE

5Rs: Retain, Reuse, Revise, Remix, Redistribute

WCAG: Perceivable, Operable, Understandable, Robust
“The goal of this accessibility toolkit is to provide resources...to create a truly open textbook - that is free and accessible for all students.”
When we

create OER,

recommend OER,

search for OER,

help faculty create OER,

advocate for using OER,

we must insist they are accessible OER.
Two Recent Conferences

Bucknell University Digital Scholarship Conference  #BUDSC18

- 5-7 October, 2018
- Theme: Digital Scholarship - Expanding Access, Activism, and Advocacy

Open Education Conference  #OpenEd18

- 10-12 October, 2018
- Several presentations on accessibility in Open Education and OER
Two Powerful Presentations

Bucknell University Digital Scholarship Conference  #BUDSC18

“The Curb Cut Effect: Digital Scholarship for Everyone”
by
Whitney Quesenbery

Open Education Conference  #OpenEd18

“Designing Accessible OERs with POUR.”
by
Lynn McCormack and Luis Perez
Whitney Quesenbery

- Center for Civic Design / Universal Design for Learning advocate
- BUDSC Keynote: “The Curb-Cut Effect: Digital Scholarship for Everyone”
- Blog: *Universal Usability: Putting people at the center of design*
- Presentation: “From Barrier-Free to Delightful” (March 2017)
Accessibility as User Experience

What happens if we think about accessibility as user experience?

Not rules, but thoughtful design

Not disability, but experience

Not tech, but people

W. Quesenbery, From Barrier Free to Delightful (March 2017)
Disability as Design Failure

Disability
The outcome of the interaction between a person and barriers.

International Classification of Functioning (ICF)

W. Quesenbery, From Barrier Free to Delightful (March 2017)
Accessibility & Usability

**Usability**

The *effectiveness*, *efficiency* and *satisfaction* with which the intended users can use a product to meet their goals.

ISO 9241-11

**Accessibility**

The *usability* of a product, service, environment or facility by people with the *widest range of capabilities*.

ISO 9241-20

W. Quesenbery, *From Barrier Free to Delightful* (March 2017)
Accessible User Experience

Principles for Accessible UX

1. **People first**: designing for differences
2. **Clear purpose**: well designed goals
3. **Solid structure**: built to standards
4. **Easy interaction**: everything works
5. **Helpful wayfinding**: guides users
6. **Clean presentation**: supports meaning
7. **Plain language**: creates conversation
8. **Accessible media**: supports all senses
9. **Universal usability**: creates delight

W. Quesenbery, *From Barrier Free to Delightful* (March 2017)
Designing Accessible OERs with POUR

National Center on Accessible Educational Materials for Learning (AEM Center)

Luis Perez, Technical Assistance Specialist

Lynn McCormack, Senior Technologist
POUR on the Accessibility: WCAG

• Web Content Accessibility Guidelines 2.1

• Information, interface, navigation, components, content must be:
  • Perceivable
  • Operable
  • Understandable
  • Robust

The POUR Framework

● Perceivable
  ○ More than one sense
  ○ Alternative text, closed captions, high contrast colors
  ○ Tool: Colour Contrast Analyzer (Paciello Group)

● Operable
  ○ More than one input method
  ○ Keyboard, touchscreen, mouse, voice recognition
  ○ Tool: How to perform a keyboard accessibility check
The POUR Framework

- **Understandable**
  - Plain language
  - No jargon
  - **Tool**: the Hemingway Editor

- **Robust**
  - Perform an accessibility check
  - Include accessibility metadata
  - **Tool**: Grackle Docs for Google Suite
Credits

Nicole Allen, Scholarly Publishing and Academic Resources Coalition

“Holding the Line on Open in an Evolving Course Content Landscape.” Open Education Southern Symposium, Fayetteville, Arkansas, 1 October 2018.

Lynn McCormack and Luis Perez, National Center on Accessible Educational Materials for Learning

“Designing Accessible OERs with POUR.” Open Education Conference, Niagara Falls, New York, 10 October 2018.

Whitney Quesenbery, Center for Civic Design

Readings, Resources, and Tools

Accessibility Readings & Resources

1. Web Content Accessibility Guidelines 2.1
2. Essential Components of Web Accessibility (W3C WAI)
3. Designing for Accessibility with POUR (National Center on Accessible Educational Materials)
4. Accessibility and Open Educational Resources (UDL on Campus)
5. Open Educational Resources and Accessibility (MERLOT)
6. WebAIM Survey of Web Accessibility Practitioners #2 (April 2018, 724 responses)
7. Tools and Techniques Used by People with Disabilities to interact with the Web (W3C WAI)

Accessibility Authoring Tools and Checkers

1. Grackle Docs (Accessibility checker for Google Drive)
2. Hemingway Editor (Readability checker by grade level)
3. Colour Contrast Analyzer (The Paciello Group)
4. CADET: Caption And Description Editing Tool (National Center for Accessible Media)
Thank You!

cbarnes@gettysburg.edu   @BookBarnes

https://orcid.org/0000-0002-9952-4378