10-26-2018

OER and Accessibility: Designing Equitable Foundations for Open Education

Christopher Barnes
Gettysburg College

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

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OER and Accessibility

Designing Equitable Foundations for Open Education

Christopher A. Barnes, PhD
Scholarly Communications Librarian
Gettysburg College
ACLCP Fall Conference 2018

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International OPEN ACCESS WEEK

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?"

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Defining Open

"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

SPARC*
@txtbks | sparcopen.org

Defining Open Resources

OPEN

FREE + REUSABLE

5Rs
{
Retain
Reuse
Revise
Remix
Redistribute

SPARC
@txtbks | sparcopen.org

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
- **R**etain
- **R**euse
- **R**evise
- **R**emix
- **R**edistribute

Expanding the Definition of Open

FULLY OPEN =

FREE + REUSABLE + ACCESSIBLE

5Rs
{
Retain
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Expanding the Definition of Open

FULLY
OPEN =
FREE + REUSABLE + **ACCESSIBLE**

5**R**s
- **R**etain
- **R**euse
- **R**evise
- **R**emix
- **R**edistribute

WCA**G**
- **P**erceivable
- **O**perable
- **U**nderstandable
- **R**obust

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Truly Open Textbooks

"The goal of this accessibility toolkit is to provide resources…to create a **truly open textbook** - that is **free and accessible** for **all** students."

Accessibility Toolkit – 2nd Edition

Amanda Coolidge, Sue Doner, Tara Robertson, and Josie Gray

The goal of this accessibility toolkit, 2nd edition, is to provide resources for each content creator, instructional designer, educational technologist, librarian, administrator, and teaching [...] to create a truly open textbook—one that is free and [...] ble for all students. This is a collaboration between BCcampus, Camosun College, and CAPER-BC.

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READ BOOK

The Responsibility of Librarians

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

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Whitney Quesenbery

- ❏ Center for Civic Design / Universal Design for Learning advocate

- ❏ BUDSC Keynote: "The Curb-Cut Effect: Digital Scholarship for Everyone"

- ❏ Book: *A Web for Everyone: Designing Accessible User Experiences* (2014)

- ❏ 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

Accessiblity

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)
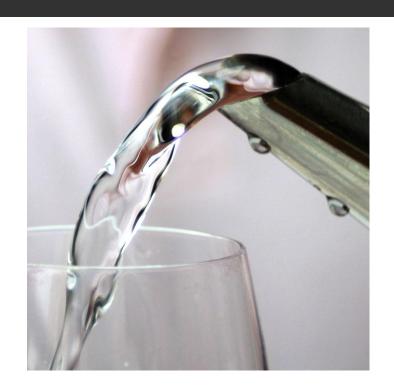
Designing Accessible OERs with POUR

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

"From Barrier-Free to Delightful." Information Architecture Summit, Vancouver, British Columbia, 25 March 2017.

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)

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Thank You!

cbarnes@gettysburg.edu   @BookBarnes

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