Accessibility in Publishing

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The Big Idea

Accessible materials can be used by anyone in any manner, regardless of ability…
- sensory, mobility, cognitive; others
- with or without accommodations such as assistive technology

…or device
- desktop, mobile, specialized

Accessible design benefits everyone, not just people with disabilities
- **universal design** or **inclusive design**

- People with disabilities use computers, too!
- Assistive technology includes screen readers, braille displays, screen magnifiers, adaptive keyboards and mice
- Accessible documents are built with semantic markup, good structure, and accessibility features

- Regulations
- Standards
- How-to
- WHY?

- What is your mission?
  - o Making documents
  - o Want people to read them
  - o Want everyone to read them

- Who do you hire?
  - o Best candidates you can get
  - o Candidate pool should include everyone
  - o Hiring practices and production tools must be accessible

Regulations

- ADA – Americans with Disabilities Act
  - o Title I: Employment
  - o Title II: State and local governments
  - o Title III: Public accommodations
- Rehabilitation Act
  - o Section 504: Education, K-12 and post-secondary
  - o Section 508: Federal government
- Marrakesh Treaty

- **Marrakesh Treaty** to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled
  - o Ratified in the U.S. on January 28, 2019
  - o Goal: to increase access to printed materials for the world's population of persons with print disabilities, especially in developing and least-developed countries
  - o Implementation: permits accessible books to be exchanged across borders between participating authorized entities without requesting authorization from the copyright owner

- Safeguards to protect the commercial market for materials in accessible format
  - o This ensures that publishers who choose to make their books available in accessible formats can sell them in the marketplace

Resources for the Marrakesh Treaty

World Intellectual Property Organization (WIPO)
https://www.wipo.int/treaties/en/ip/marrakesh/

Accessible Books Consortium
https://www.accessiblebooksconsortium.org/
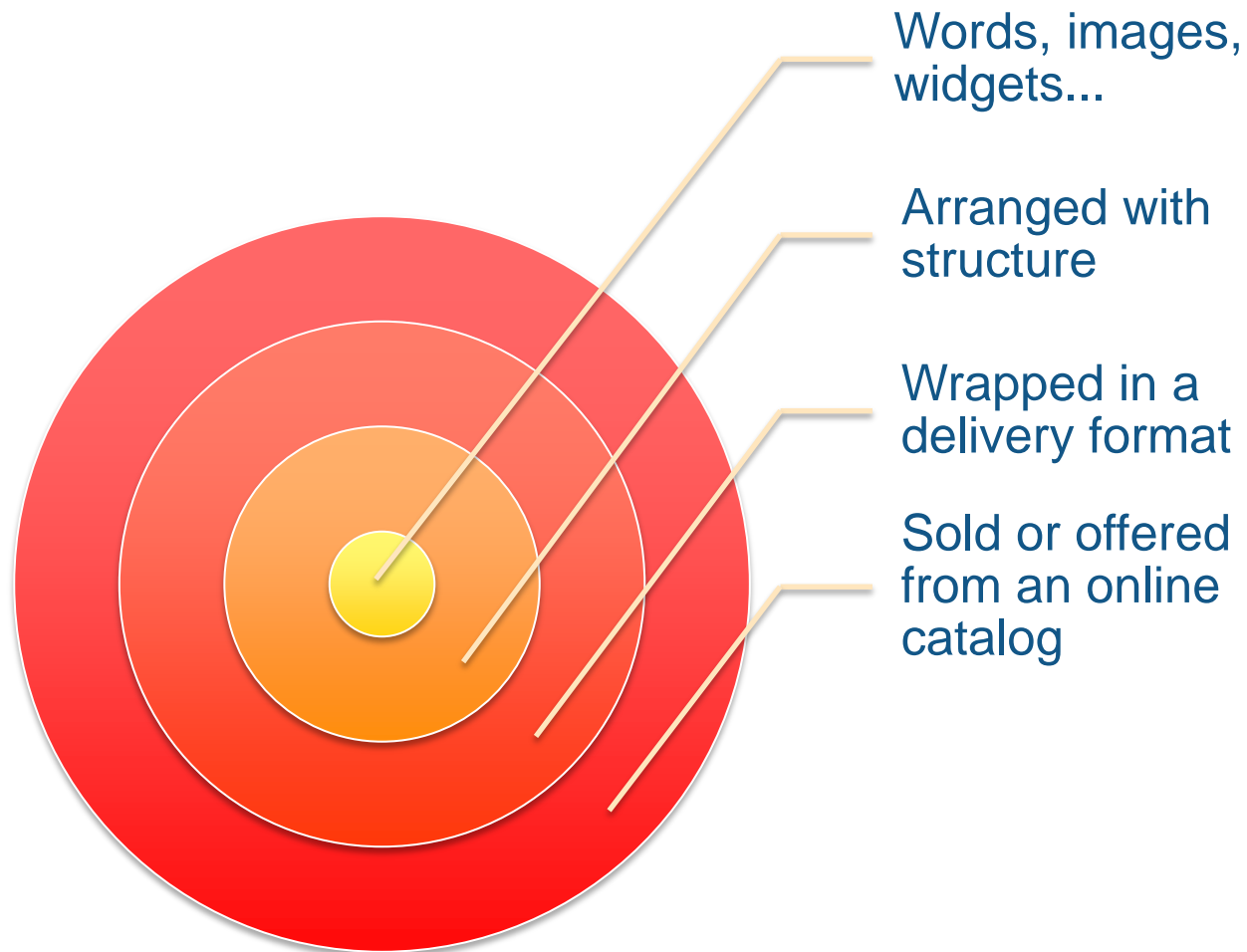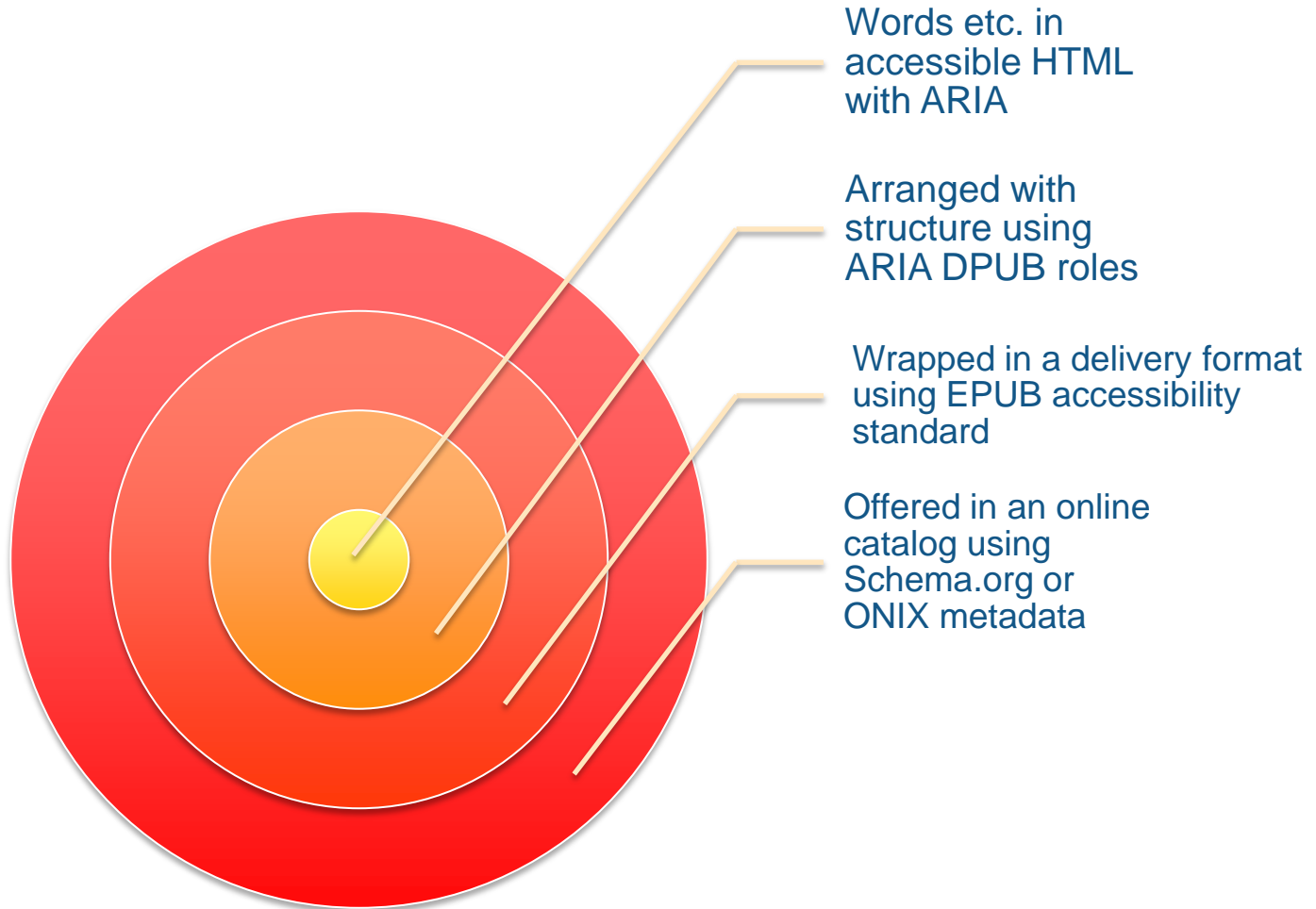
Standards

- Web standards from W3C: WCAG, HTML, ARIA
- WAI-ARIA Digital Publishing Module
- EPUB for Education
- EPUB Accessibility: Conformance and Discovery Requirements for EPUB Publications
- PDF/UA
- Schema.org and ONIX metadata

Words, images, widgets...

Arranged with structure

Wrapped in a delivery format

Sold or offered from an online catalog

Words etc. in accessible HTML with ARIA

Arranged with structure using ARIA DPUB roles

Wrapped in a delivery format using EPUB accessibility standard

Offered in an online catalog using Schema.org or ONIX metadata

- PDF/UA (Universal Access; ISO 14289)

- Key is proper export from InDesign or other tools
  - o Ensure reading order is correct
  - o Ensure elements like tables and figures are inserted in the right spot and with summaries

- HTML5
- Web Content Accessibility Guidelines 2.1
  - Start with "Web Content Accessibility Guidelines (WCAG) Overview"
  - Perceivable, Operable, Understandable and Robust
  - Success criteria
  - Specific techniques and code samples (HTML, CSS, PDF, ARIA, Flash, other technologies)
- User Agent Accessibility Guidelines 2.0
  - Ebook readers are user agents
- Authoring Tools Accessibility Guidelines 2.0

- Accessible Rich Internet Applications 1.1
    - adds accessibility semantics to a host language, i.e. HTML or EPUB
    - always use native HTML or EPUB when that has semantics
    - layer on ARIA, but not too much

- Digital Publishing WAI-ARIA Module 1.1
    - defines a set of WAI-ARIA roles specific to helping users of assistive technologies navigate through long-form documents

EPUB Standards

- EPUB 3.2 nearly finished
  - o 3.0 added accessibility support
  - o 3.1 new accessibility features but broke version number backward-compatibility
  - o 3.2 keeps 3.1 improvements but restores version number compatibility

- EPUB for Education (formerly EduPUB):
  profile of EPUB with rich educational semantics

- EPUB Accessibility: Conformance and Discovery Requirements for EPUB Publications
  - o Now a W3C submission (IDPF site not available)
  - o Includes a techniques document (not currently available)

Accessibility Metadata

- ONIX
  - o extensive accessibility features list
  - o Code List 196

- Schema.org and a11ymetadata.org
  - o accessibility features, hazards, control, API, access mode, access mode sufficient, accessibility summary

- Work in progress: harmonize ONIX and Schema.org accessibility metadata

How to

- Use the standards for text and navigation
- Make content accessible
  - Image descriptions
  - Video with captions and audio description
  - Accessible interactives including video players
- Make tool interfaces accessible
  - For users with disabilities
  - For creating accessible content

Resources

Web Accessibility Initiative:
https://www.w3.org/WAI/

WCAG Overview:
https://www.w3.org/WAI/intro/wcag.php

ARIA 1.1
W3C Recommendation 14 December 2017
https://www.w3.org/TR/wai-aria-1.1/

Digital Publishing WAI-ARIA Module 1.0:
W3C Recommendation 14 December 2017
https://www.w3.org/TR/dpub-aria-1.0/

Digital Publishing WAI-ARIA Module 1.1
W3C Editor's Draft 02 May 2019
https://w3c.github.io/dpub-aria/

EPUB for Education:
Draft Community Group Report 06 August 2019
https://w3c.github.io/publ-cg/education/epub-education.html

EPUB Accessibility 1.0: Conformance and Discovery
(NOTE that IDPF site is down, but this is a copy of the original document. Techniques not currently available.)
W3C Member Submission 25 January 2017
https://www.w3.org/Submission/epub-a11y/

Acrobat Accessibility Resources
http://www.adobe.com/accessibility/products/acrobat/training.html

Best practices for PDF accessibility
http://www.adobe.com/content/dam/Adobe/en/accessibility/products/acrobat/pdfs/acrobat-xi-pro-accessibility-best-practice-guide.pdf

InDesign Accessibility
https://www.adobe.com/accessibility/products/indesign.html

ONIX:

ONIX 3.0 has the accessibility updates

https://www.editeur.org/12/Current-Release/

Accessibility Metadata:

Specification, examples, crosswalk, and more

http://www.a11ymetadata.org/

Image Description:

Diagram Center's Guidelines for Image Description

http://diagramcenter.org/table-of-contents-2.html

Video:

Captioning and Description Editing Tool (CADET) free from NCAM

http://ncamftp.wgbh.org/cadet/

Captioning Key

https://www.captioningkey.org/quality_captioning.html

Description Key

http://www.descriptionkey.org/index.html

Questions

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