



Bringing Document Accessibility to the Grassroots: Author-Level Tools

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>>Background

Accessibility as a Specialized Area

Authors and the Optimal Workflow

Author-Level Tools

Demo

Q&A

Document Accessibility and the Knowledge Based Society-Background

- **Ability to access and process electronic information is critical for leading a full and productive life**
- **Many people with disabilities have greatly benefited as a result of the availability of electronic information on the internet and digital media**
- **Significant progress has been made to improve the accessibility of content presented on websites (often in HTML format)**

Document Accessibility and the Knowledge Based Society- The Problem

- **Accessibility of electronic documents, such as Microsoft word documents and PDFs, still lags behind other online content**
- **Accessibility is often added to documents as an afterthought, if at all**
- **Enormous volume of content created on a daily basis in the form of documents**
- **Authors often know very little about accessibility**
- **The problem of document accessibility has reached crisis proportions**

Document Accessibility and the Knowledge Based Society – The Consequences

- **The potential of the information age to level the playing field for people with disabilities has not been fully realized.**
 - Employment
 - Education
 - Entertainment

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What is an Electronic Document?

- **Computer file;**
- **Has information content that is typically self contained;**
- **Typically has a structure that organizes and presents the content**
- **Authored by one or more authors using a computer application**
- **Has a specific format**
- **The format used to share a document may be different that the format used to author it.**

Example of a Document Format: PDF

- **Portable Document Format**
- **Printers/monitors**
- **Initially, Physical View only**
- **A tagged document consists of three views:**
 - **Physical View:** Displays and printers
 - **Content Order View:** Reflow and PDA's ...etc.
 - **Tags View:** Screen readers and other assistive technologies

Making PDF Accessible

1) Fix Content Order:

- Any elements used purely for presentation should be contained within artifacts
- Move text-runs, text elements, images .. Etc into suitable containers.
- Make sure the order of the containers is correct.

2) Fix Tags:

- Put headers in a suitable header level (H1, H2)
- Put Figure containers in Figure Tags.
- Put paragraph containers in paragraph tags.
- Put containers that correspond to tables in data/header cells, contained in rows, contained in tables.
- Tag form annotations into Form tags.
- Make sure the order of the tags is correct.
- Set attributes of certain tags:
- Alternative text for non textual elements.
- Row and column span for data/header table cells
- Scope of header for header table cells.
- Tooltip of form annotations.

Conclusion 1: A typical author does not have the knowledge, time or skills to make a PDF document accessible

Conclusion 2: Accessibility becomes the realm of specialists

Conclusion 3: Accessibility specialists cannot keep up with the pace of content creation

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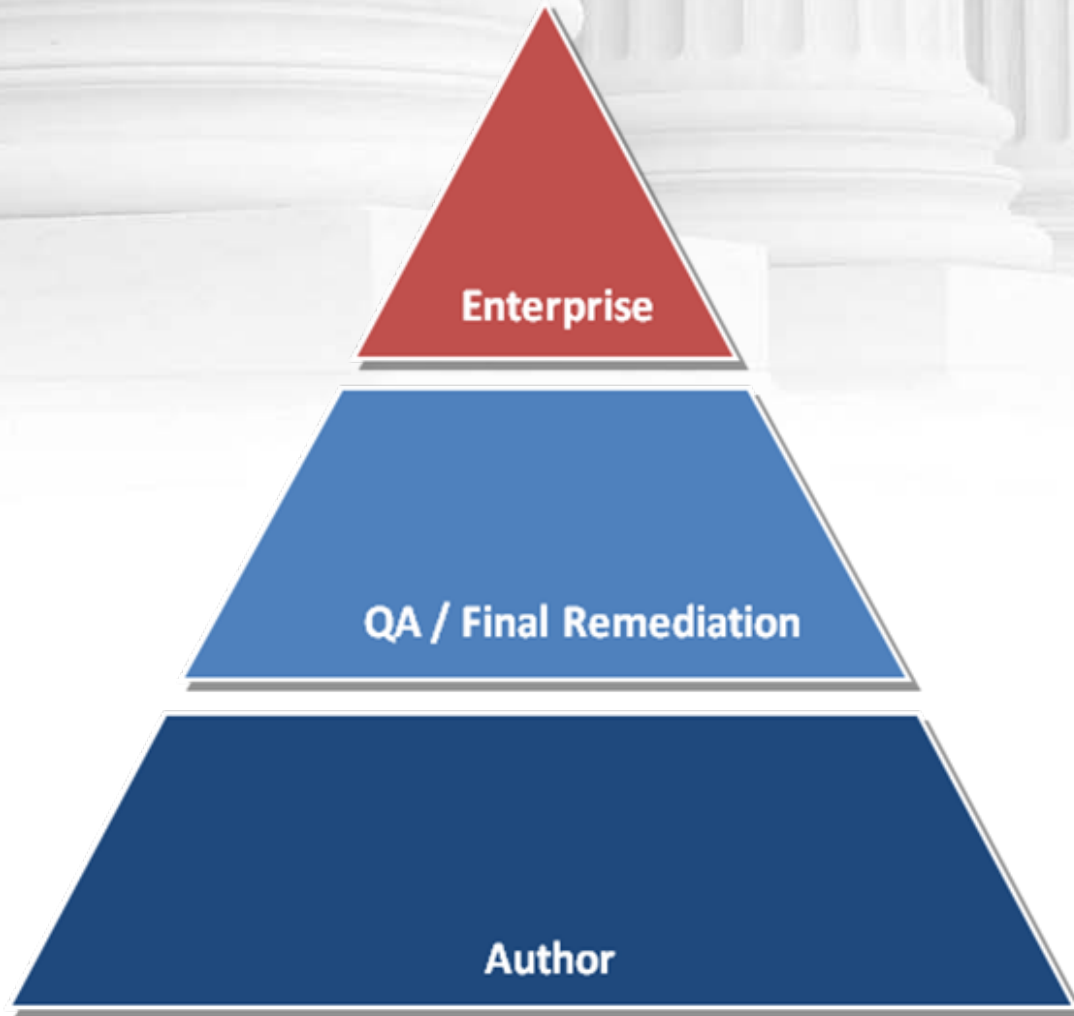
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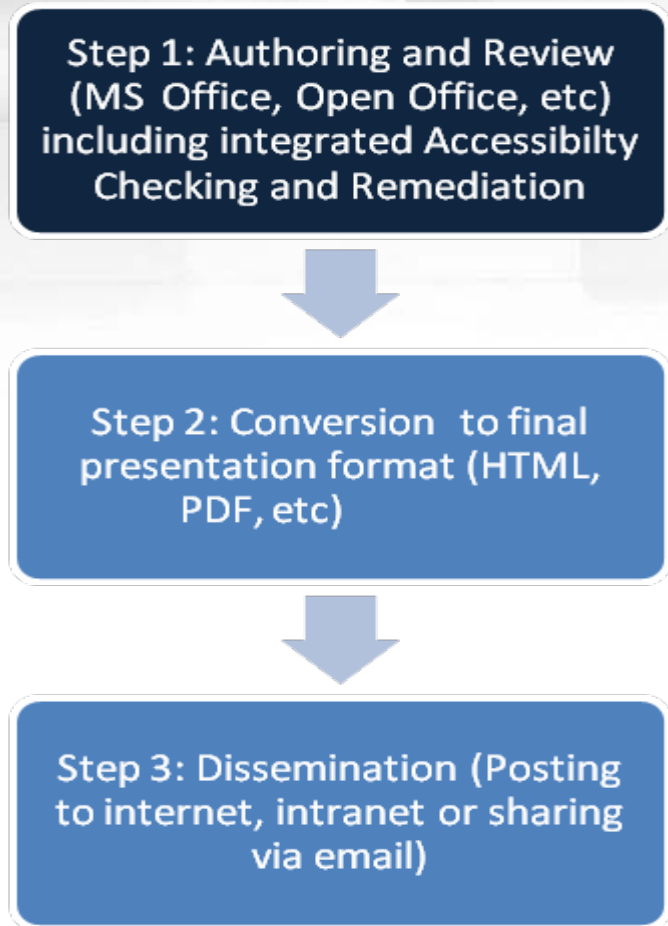
Pyramid of Document Accessibility



Authors and Accessibility

- **Authors are typically oblivious to accessibility**
- **The impact of accessibility can be greatest at the author level:**
 - Authors know the content well. As a result, they can provide the most effective accessibility information.
 - Authors are far more numerous than quality assurance or enterprise compliance personnel.
 - Making authors responsible for the accessibility of their documents will take accessibility to the grassroots increasing the chances that the large volume of documents created are accessible
 - It is far less expensive to add accessibility at the author level.

The Optimal Workflow for Accessibility



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The Vision: Use effective author-level tools to bring accessibility to the grassroots

- **A University Professor creating course materials and distributing them to students will easily create fully accessible documents from his/her favourite authoring environment. The professor will not view this as an added burden but rather as an integral part of the authoring process, similar to spell checking.**
- **A student with a visual impairment will be able to easily read course materials because they will have been created with accessibility built in from the get-go by the person most qualified to create this accessibility information (i.e. the professor). Thus the student will not be at a disadvantage compared to sighted students.**

The Vision: Use effective author-level tools to bring accessibility to the grassroots

- **A job seeker with a visual impairment will be able to read job postings produced as PDF documents and fill out an on-line application form because the postings and forms would have been built with accessibility integrated into the documents and forms by their authors. Thus enabling the job seeker to more effectively locate a suitable job and apply for it.**

Effective Author-Level Tools

- **Should be integrated into the authoring environment;**
- **Should verify documents against a well defined standard such as Section 508 or W3C WCAG 2.0;**
- **Should provide the ability to both verify and to fix compliance problems;**
- **Should impose a minimal “burden” on authors in terms of the need to have knowledge of accessibility or the amount of work that is required to make a document accessible.**
- **They should use basic, non-technical language and provide clear explanations and examples.**

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Thank You
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**Do You Have
Any Questions?**