Poster #60

Promoting inclusion by creating accessible publications: A case study of best practices for accessibility tagging of congress posters

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Background

- Individuals who are blind or have low vision face barriers to accessing medical publications, which often take the form of posters and manuscripts in a PDF format
- Poster PDFs are one of the most common forms of digital content encountered at medical conferences and are particularly challenging for screen readers due to heavy use of graphical elements and variable order of content
- Tagging PDF files for accessibility allows individuals with blindness or visual impairment to read the text using a screen reader or a braille display
- Unavailable or inadequate tagging of poster PDFs harms equitable access to the newest information on emergent treatments and devices at the forefront of biomedical research[1]
- The Johns Hopkins University Disability Health Research Center 2023 "Toolkit To Design More Accessible Scientific Meetings and Conferences"[2] provides guidance on good practices for accessibility in medical communications:
  - Easy-to-read font (e.g., Verdana, Arial, **Atkinson Hyperlegible**)
  - Properly marked/tagged headings for screen readers
  - High contrast between font color and background
  - Meaningful alternative 'alt' text for graphics
  - Using different colors rather than shades of the same color
  - Providing close captioning for video
- These guidelines are usually not required by conferences, and adoption of accessibility tagging into medical publication development workflows is not yet standard practice
  - Nonetheless, for inclusion of individuals who are blind or have low vision, it is imperative that these guidelines are adopted and implemented, including using PDF tagging to improve accessibility

"Braille Institute supports the efforts of the scientific community to adapt publications to make them accessible to those who are blind or have low vision." -Jim Kales, Chief Executive Officer of the Braille Institute

Objective

- To retrospectively evaluate the implementation of PDF tagging into existing workflows for poster development at a medical communications agency

Methods

- Over 2022 to 2023, a total of 16 posters developed by Red Nucleus for Sage Therapeutics, Inc. were retrospectively evaluated for tagging accuracy based on the method used for tagging
- Of the 16 posters, 7 had tags automated by Adobe® Acrobat® and 9 had export tags applied via Adobe® InDesign® prior to exporting the PDF
- The average number of tags per poster were calculated for the Acrobat auto-tagged posters, the manually corrected version of the Acrobat-tagged posters, and InDesign-tagged posters
- The estimated time required for poster corrections (separated by ≥4 or <4 hours) were evaluated

Limitations

- No formal statistical analyses were performed; quantitative results are descriptive

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Disclosures

All authors have no conflicts of interest to disclose.

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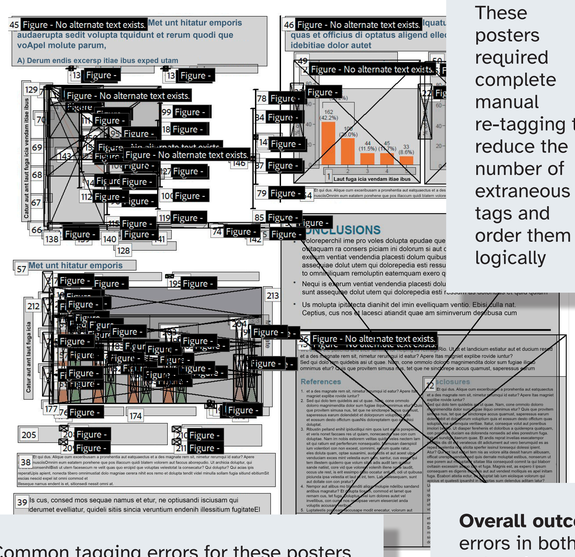
Conclusions

- Our findings illustrate that automated InDesign tagging of PDF documents improves accuracy compared with Adobe Acrobat and minimizes manual correction, resulting in a simplified process that is easy to apply across poster presentations
- Identifying streamlined workflows to incorporate accessibility tagging in posters is essential to equalize access to scientific information

Results

First-pass tagging of PDF posters with software

Adobe Acrobat : Auto-tag



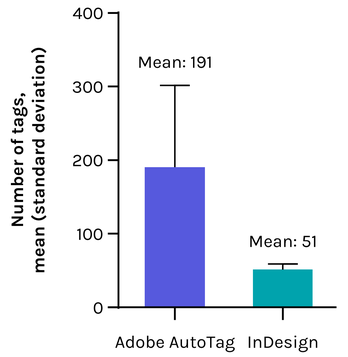
These posters required complete manual re-tagging to reduce the number of extraneous tags and order them logically

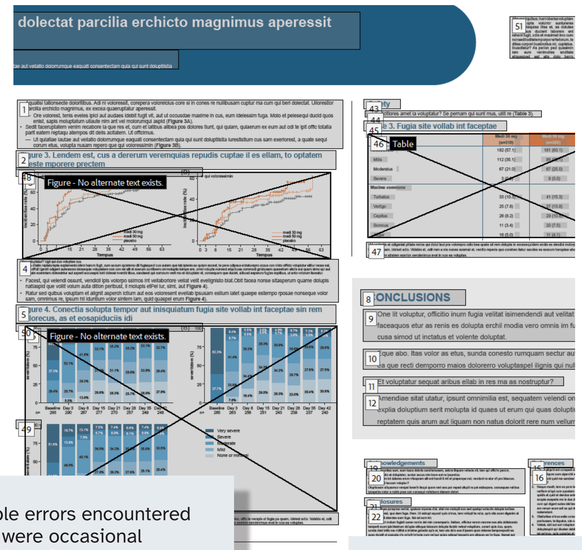
Common tagging errors for these posters included:

- Incorrect ordering of tags
- Text tagged as figures
- Figures tagged as tables
- Duplicate tagging (eg, tagging each line of an author list as separate tags)
- Inaccurate tagging of table cells

Overall outcome: Numerous errors in both the amount and order of tags were introduced in PDF posters with the Adobe Acrobat Auto-tag feature

Adobe InDesign



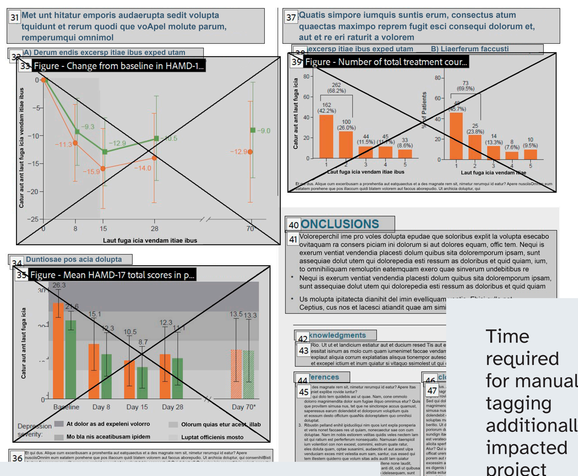


The only notable errors encountered with InDesign were occasional incorrect ordering of tags

Overall outcome: Tagging posters in InDesign prior to PDF export resulted in an accurate assessment of the number of tags

Manual correction of tags

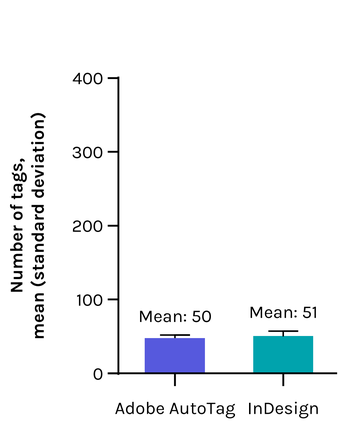
Adobe Acrobat

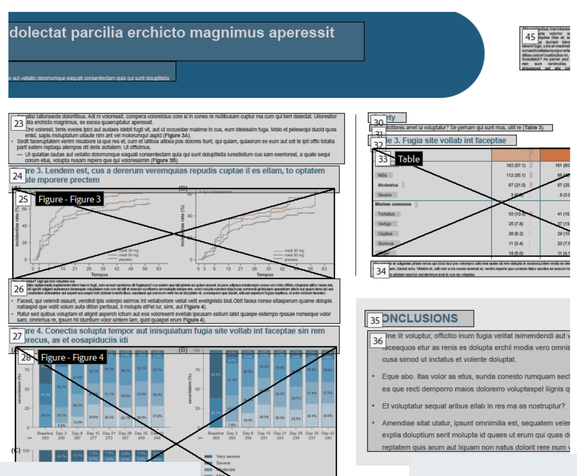


Due to the need to completely remove Adobe auto tags and manually add all tags, 6 of 7 Adobe auto-tagged posters required ≥4 hours to correct

Time required for manual tagging additionally impacted project budgets

Adobe InDesign





No InDesign-tagged posters required ≥4 hours of time to correct

No added cost