Accessibility and WCAG Compliance in Higher Education

WCAG AI - artificial intelligence in document accessibility
What is WCAG?
Web Content Accessibility Guidelines

WCAG is an international standard, providing guidelines for making web content accessible for people with disabilities.

❖ perceivable: provide text alternatives for non-text content, make it easier for users to see and hear content

❖ operable: make all functionality available from a keyboard, help users navigate and find content

❖ understandable: make text readable and understandable

❖ robust: maximize compatibility with current and future user tools
Accessible Web content: is it only HTML?

Websites are usually not limited to HTML-based web pages. Especially in the case of digital repositories the user usually interacts with documents, which are potentially:

- very large in number (e.g. multiple thousands of documents in a library or a digital repository)
- very diverse in structure and format (e.g. books, theses, scientific papers, reports, official documents)
- very large in terms of size (e.g. books, containing several hundred pages)
Accessibility of documents is a more difficult task than accessibility of web pages

**Web pages**
- are usually generated from templates, which may be made accessible just once
- are usually authored by a limited number of actors
- are controlled by the owning organization

**Documents**
- differ significantly in their structure and are not produced from a single template
- are usually authored by a large number of actors
- may either by acquired from the inside or outside of the organization
Motivation: the case of Polish Platform of Medical Research
Accessibility of a repository containing 380k+ documents
Manual work? Not a viable solution
Adobe Acrobat
MANUAL ANNOTATION
WCAG AI
Artificial Intelligence in the task of making documents accessible

The results of a research project, co-financed by the European Union from the European Regional Development Fund under the Intelligent Development Operational Program.

The aim is to use AI models for (among others):
❖ automated annotation of document structure,
❖ automated generation of alternative text for non-text objects,
❖ disambiguating abbreviations,
❖ automatic annotation of foreign text.
WCAG AI process

Automated generation of document accessibility layer
- Structure tags, alternative text, etc.

Verification and correction by a human expert (optional)
- Cost and time reduction vs fully manual work

Accessible PDF document
Accessible HTML document
...
Questions and contact information

Thank you for your attention!

Questions?

Please contact:
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