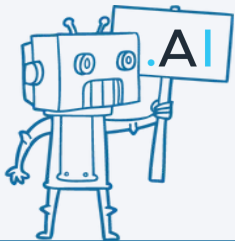


Accessibility and WCAG Compliance in Higher Education

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 be acquired from the inside or outside of the organization

Motivation: the case of Polish Platform of Medical Research



PPM GUMed



PPM IMP



PPM PUM



PPM SUM



PPM UMB



PPM UMLub



PPM UMW



PPM WUM

Dołączyli do nas



PZW UJ CM



Accessibility of a repository containing 380k+ documents

The screenshot shows the homepage of the Polish Medical Platform (PPM). At the top, there is a navigation bar with the PPM logo, the text 'Polska Platforma Medyczna', and the European Union flag. Below the navigation bar is a search bar with the text 'Szukaj...' and a dropdown menu for 'Wszędzie'. The main content area features a grid of statistics for various categories, followed by two sections: 'Open Access w PPM' and 'Nowości w Repozytorium'.

Statystyki:

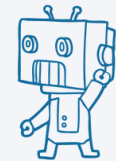
Jednostki PPM	1974	Naukowcy	12465	Publikacje	382525	Doktoraty	16809	Dane badawcze	402
Patenty	860	Projekty	5070	Aparatura badawcza	907	Laboratoria	80	Multimedia	1298

Open Access w PPM:

Publikacje	70619	Doktoraty	3165
Dane badawcze	399		

Nowości w Repozytorium:

Publikacje	1063	Doktoraty	38
Dane badawcze	1	Patenty	860



sages

Manual work? Not a viable solution



10.1007!s10151-013-1081-0.pdf

dostępny od: 26-08-2020



Poproś o plik WCAG

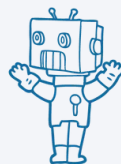


10.1007!s10151-013-1081-0-wcag.pdf

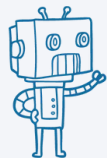
dostępny od: 26-08-2020



Spełnia wymagania WCAG - Zgłoś problem z dostępem WCAG



sages



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)**

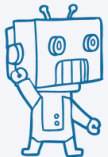
Cost and time reduction
vs fully manual work

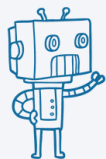


**Accessible PDF
document**

**Accessible
HTML document**

...





WCAG AI DEMO

sages

Questions and contact information

Thank you for your attention!

Questions?

Please contact:

❖ Łukasz Kobyliński (l.kobylinski@sages.com.pl)

for further inquiries.



sages