



HOW TO CREATE

ACCESSIBLEPDFS

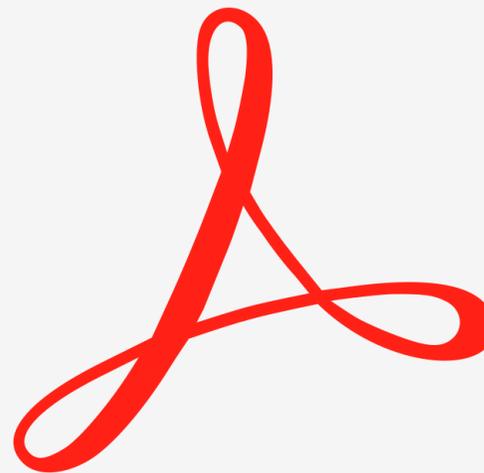
Laura Solomon

@laurasolomon

Meanlaura.com



WHAT DOES THIS
MEAN TO ME,
LAURA?



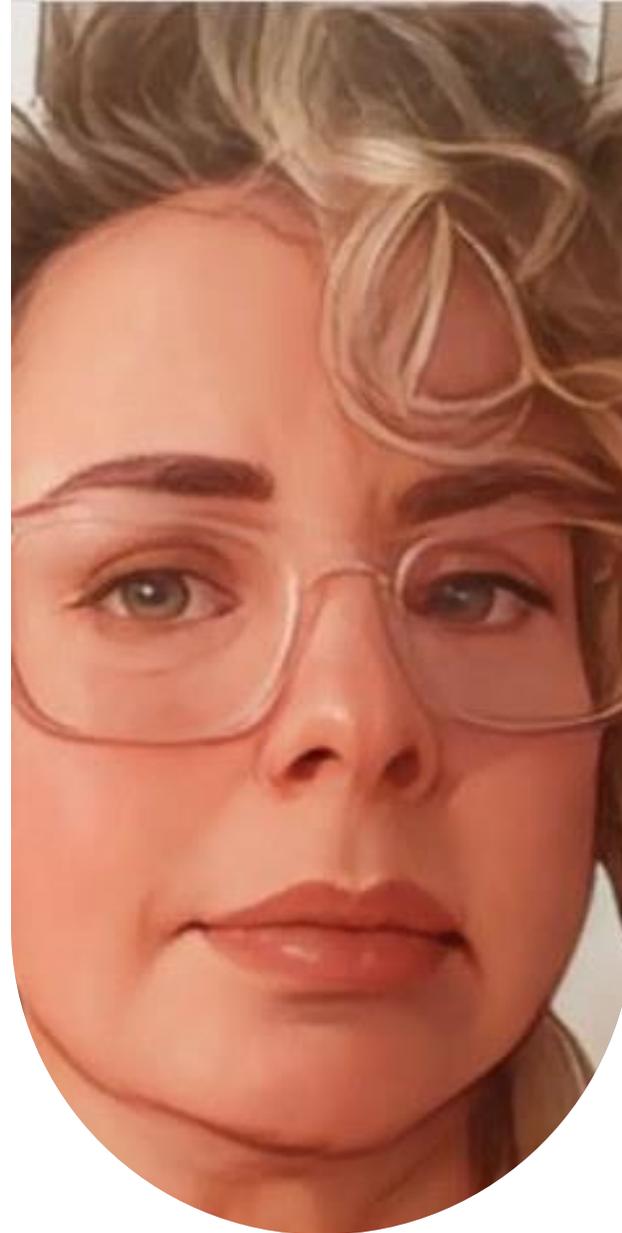
PDF

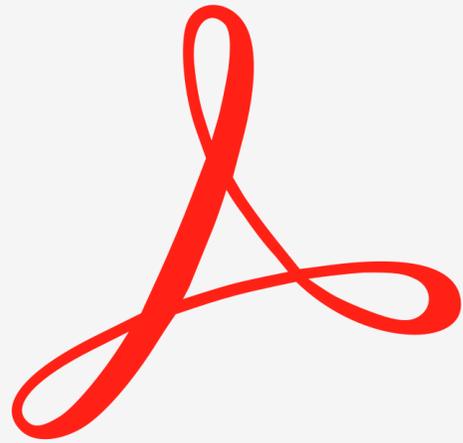


Table Of Contents

For Today

- Foundational concepts
- The 10 Rules
- What about scans?
- Tools to Help
- The Big Takeaways





PDF

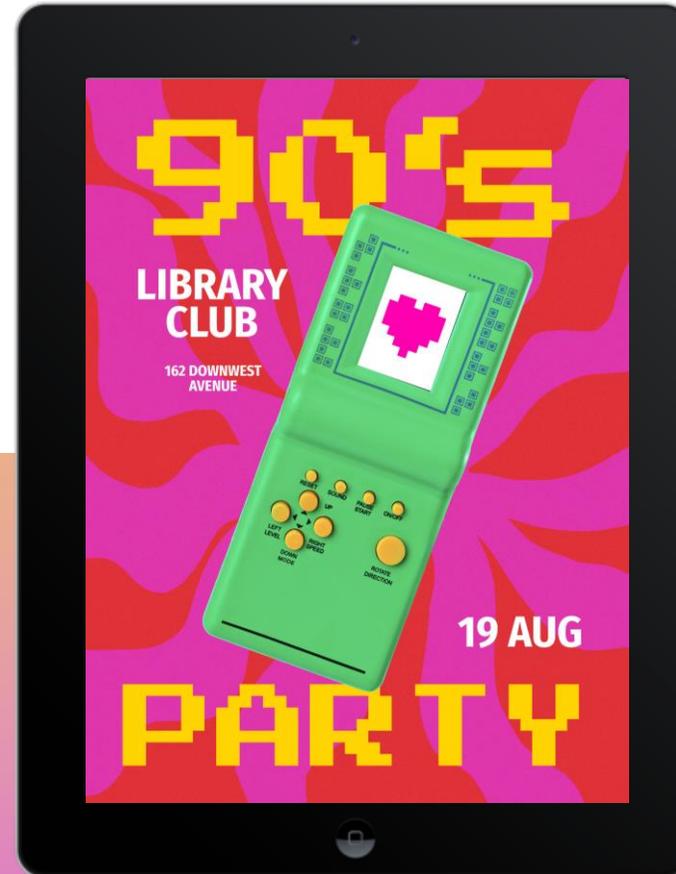
Foundational Concepts



**WHAT DOES THIS
MEAN TO ME,
LAURA?**



PDFs are often the DEFAULT







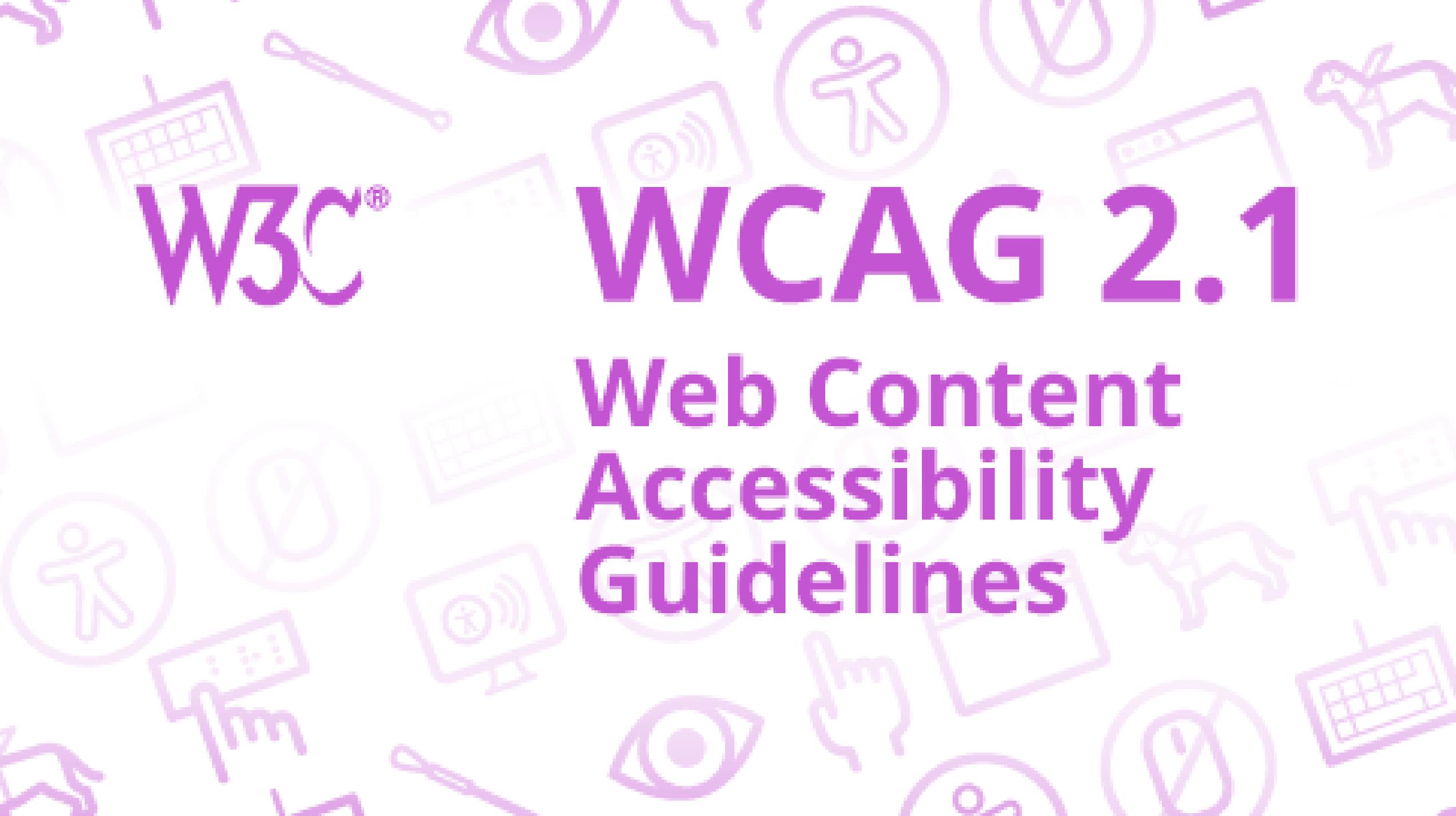
Accessibility laws apply to
EVERYTHING



The laws DO apply to your library



The power of the Web is in its
universality. Access by everyone
regardless of disability is an essential
aspect.—Tim Berners-Lee

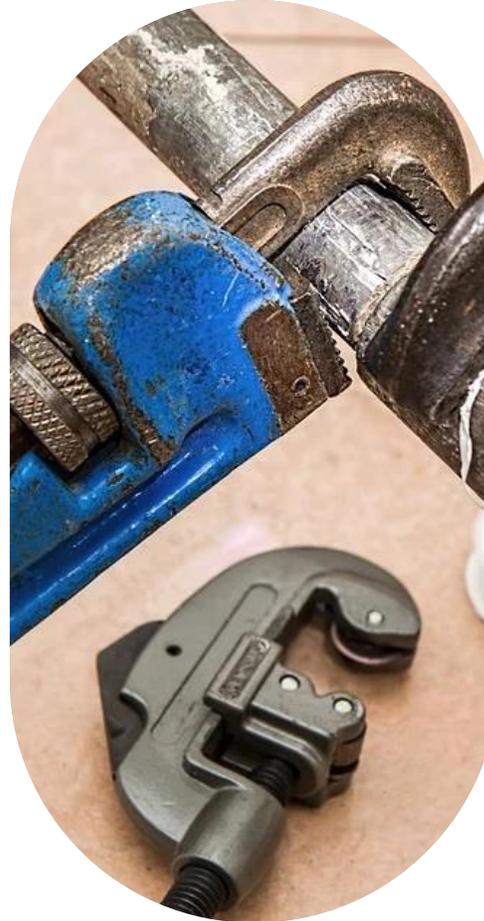
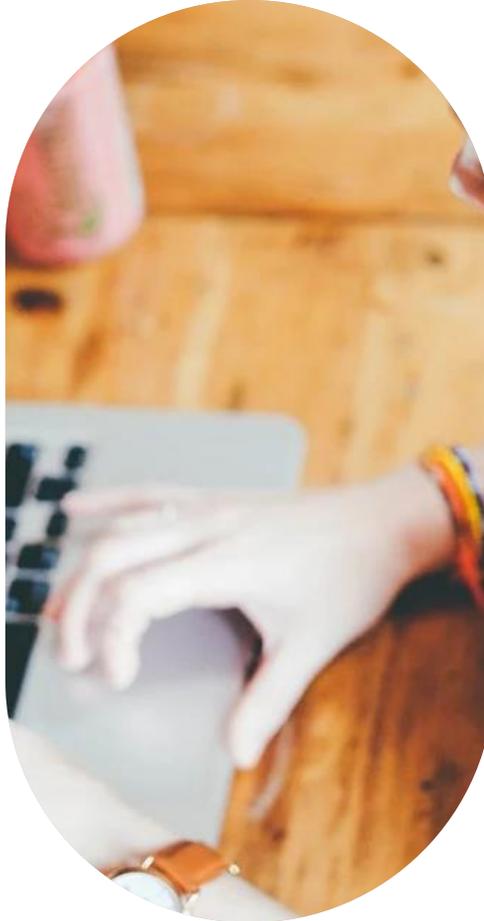


W3C[®]

WCAG 2.1

Web Content
Accessibility
Guidelines

Best practice, from **MOST** to **LEAST** desirable.





Manually

More time
More accurate

Acrobat Pro

Automated

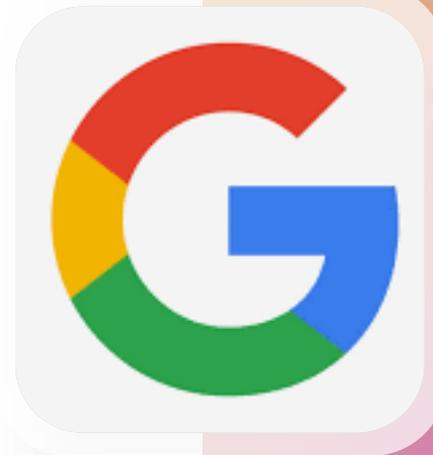
Less time
Less accurate

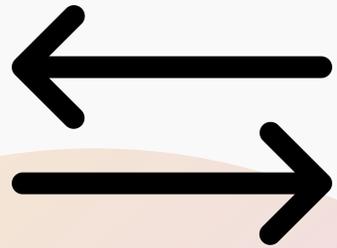
Automated tool

What is
TAGGING?

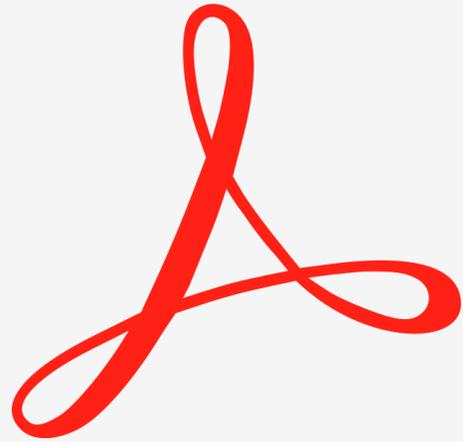


**It's the source file that
MATTERS**





**You CONVERT, not
PRINT**



PDF

The 10 Rules

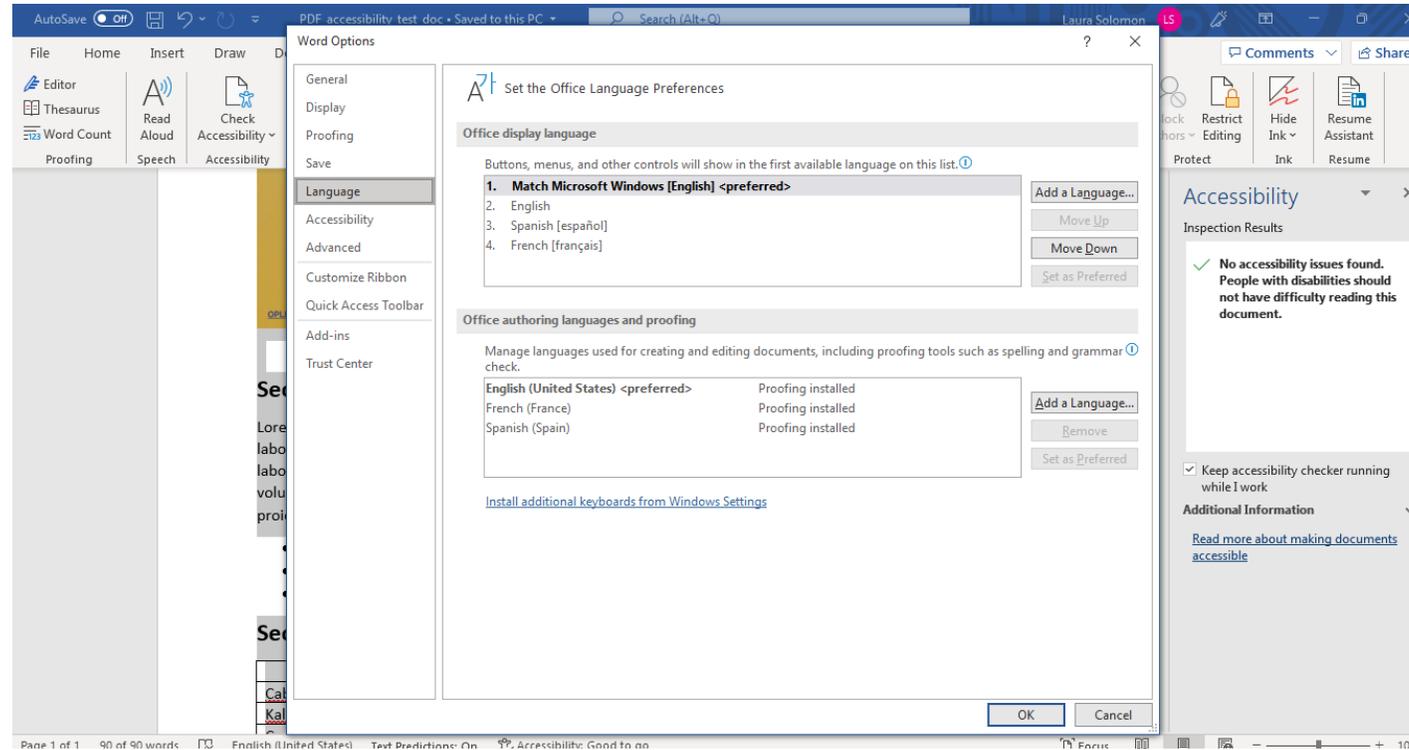


**WHAT DOES THIS
MEAN TO ME,
LAURA?**

<https://www.w3.org/TR/WCAG20-TECHS/pdf>

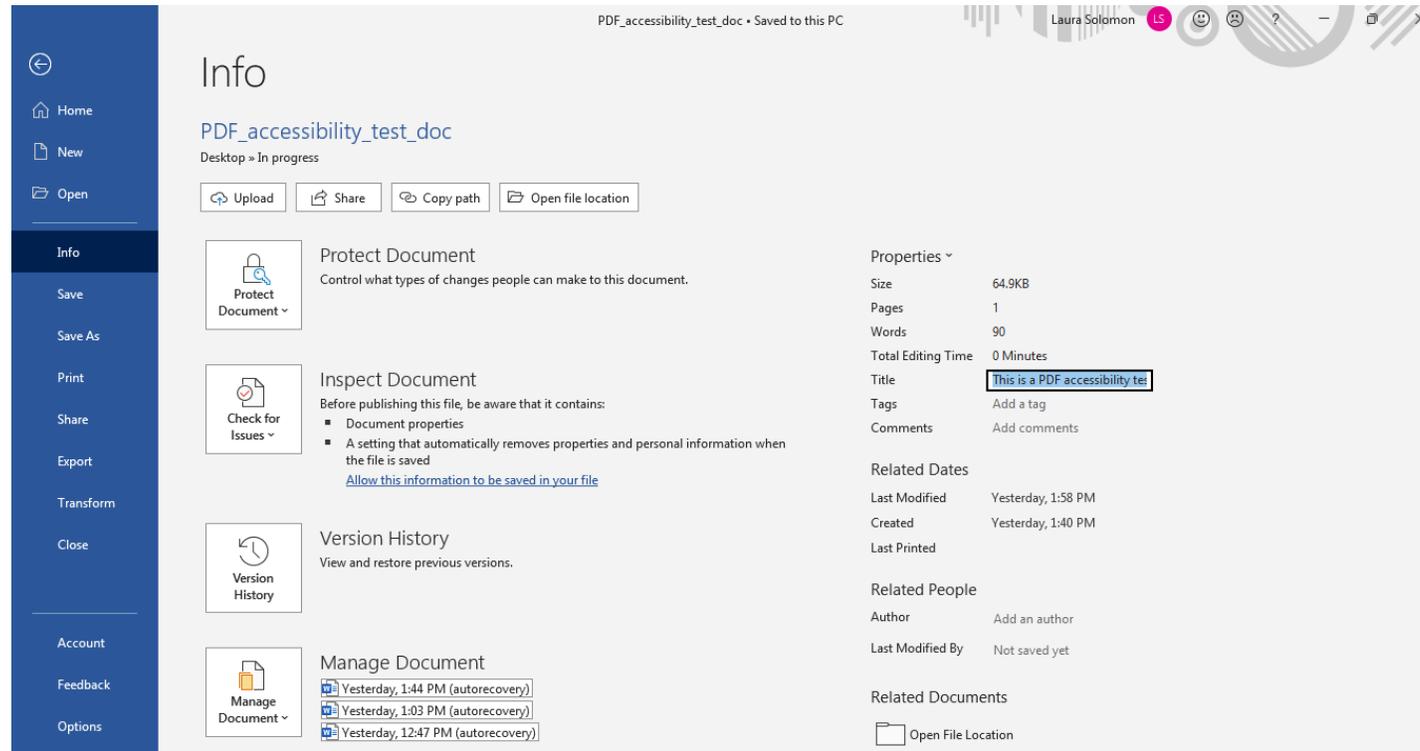


1. Declare the document's language



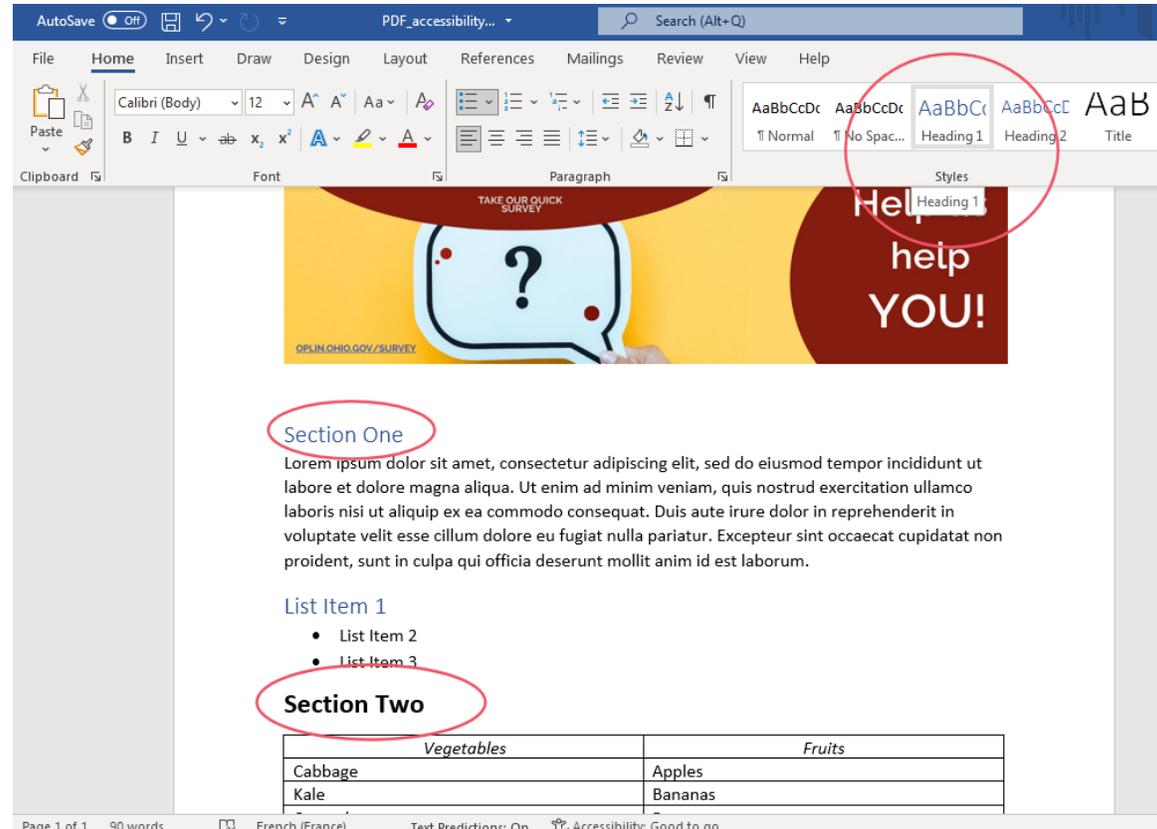
<https://it.umn.edu/services-technologies/how-tos/microsoft-word-set-document-language>

2. Include a title for your document



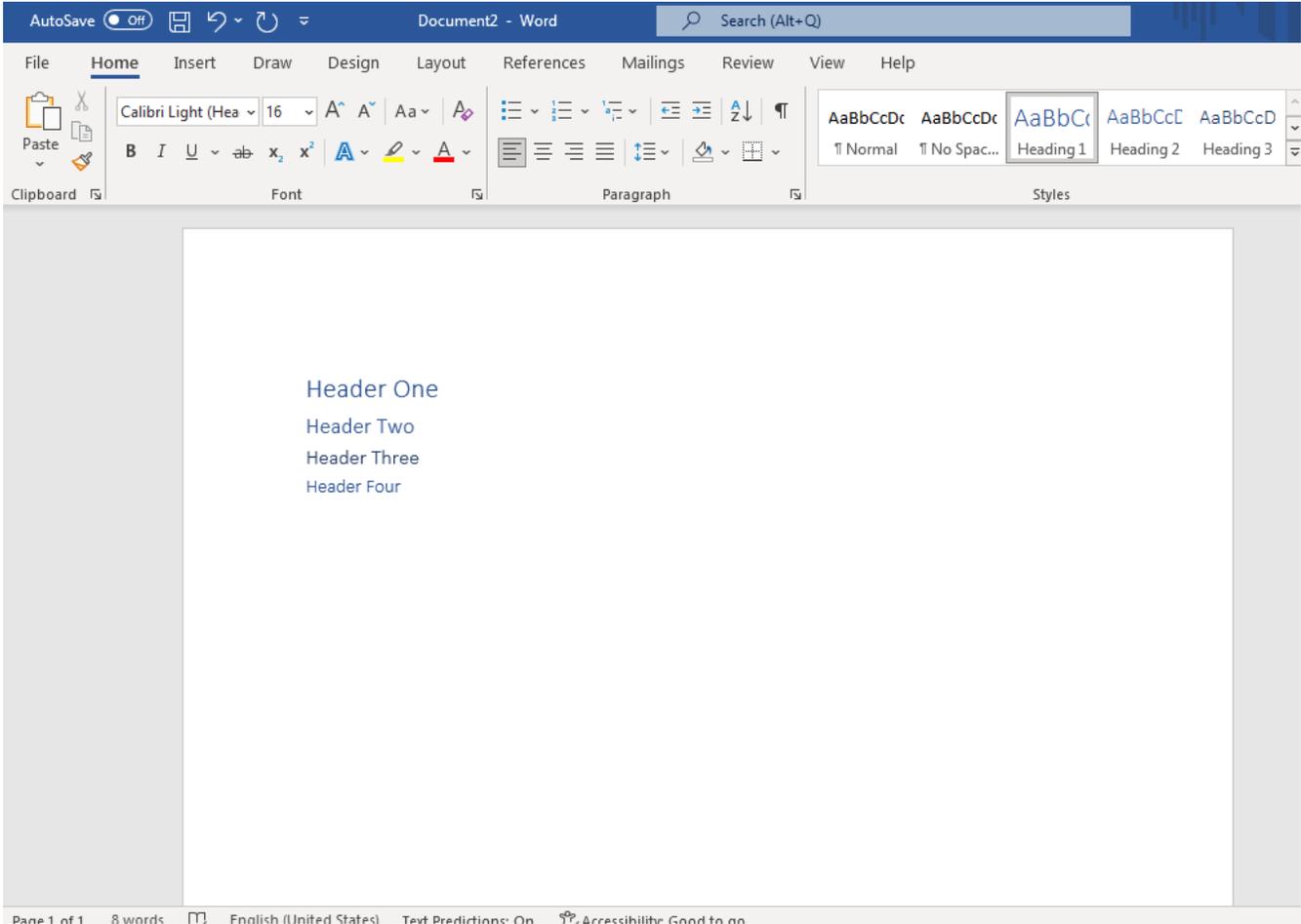
<https://learntech.engr.tamu.edu/faculty-tutorials/accessibility/accessibility-series/add-document-title-into-word-document-or-pdf>

3. Use header styles instead of manually bolding a header or changing its font size

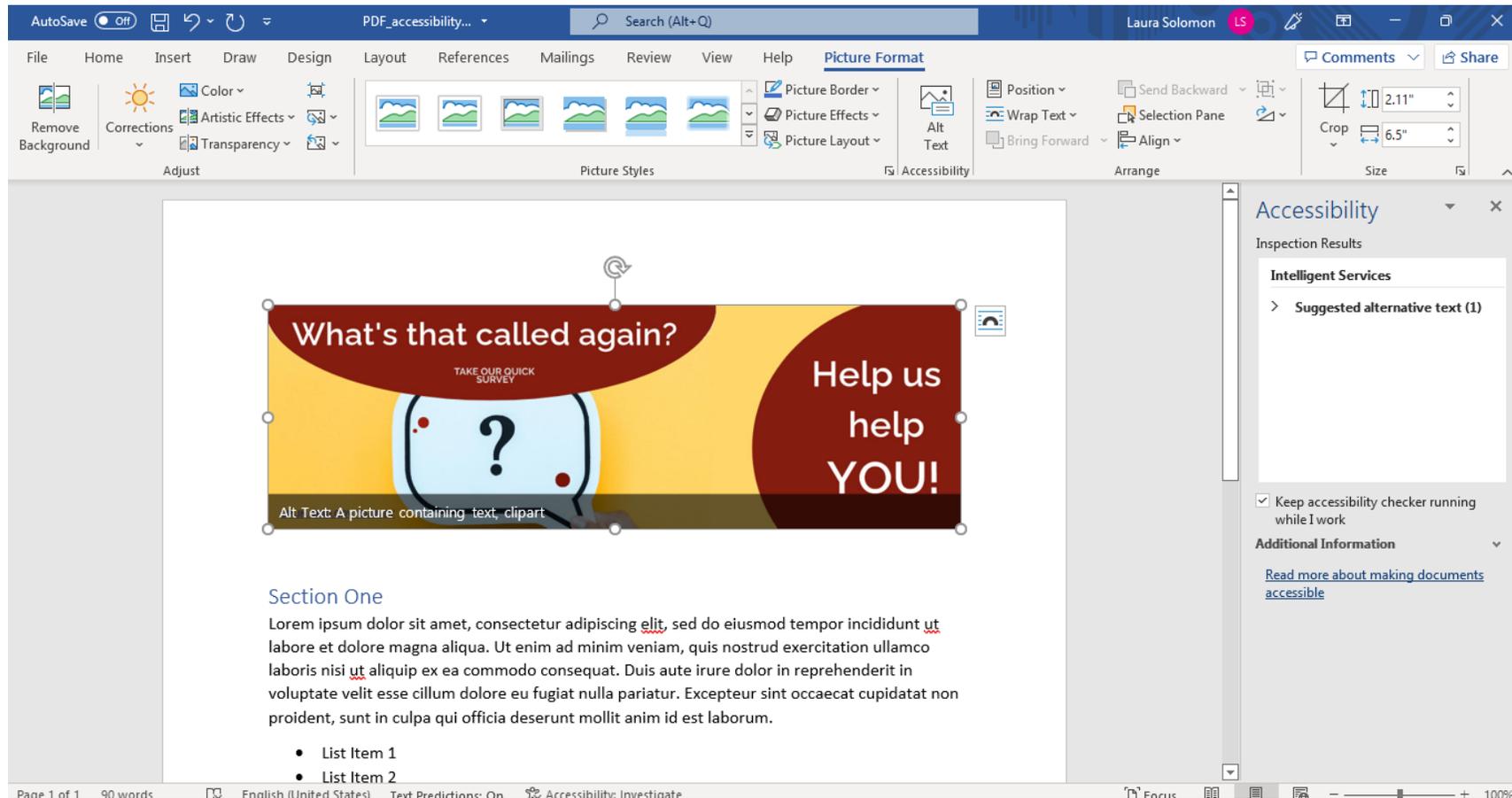


<https://support.microsoft.com/en-us/office/video-improve-accessibility-with-heading-styles-68f1eeff-6113-410f-8313-b5d382cc3be1>

4. Ensure that said headers are orderly



5. Include a brief description of your images via alternative text



The screenshot displays the Microsoft Word interface with the **Picture Format** ribbon active. The ribbon contains several groups of options: **Adjust** (Remove Background, Corrections, Color, Artistic Effects, Transparency), **Picture Styles** (Picture Border, Picture Effects, Picture Layout), **Accessibility** (Alt Text), **Arrange** (Position, Wrap Text, Bring Forward, Send Backward, Selection Pane, Align), and **Size** (Crop, dimensions). The main document area shows a graphic with a speech bubble containing a question mark and the text "What's that called again?", "TAKE OUR QUICK SURVEY", and "Help us help YOU!". Below the graphic, the **Alt Text** field is populated with "A picture containing text, clipart". The **Accessibility** task pane on the right shows the **Inspection Results** for the image, with a section for **Intelligent Services** and a sub-section for **Suggested alternative text (1)**. Below this, there are checkboxes for "Keep accessibility checker running while I work" and a link for "Additional Information" with the text "Read more about making documents accessible".

Section One

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

- List Item 1
- List Item 2

The Word Accessibility Checker

The screenshot shows the Microsoft Word interface with the 'Review' tab selected. The 'Check Accessibility' button in the ribbon is highlighted, and its dropdown menu is open, showing options: 'Check Accessibility', 'Alt Text', '<< Navigation Pane', 'Focus', and 'Options: Accessibility'. The document content includes a yellow and red banner with the text 'What's that called again?' and 'Help us help YOU!'. Below the banner is a section titled 'Section One' followed by a paragraph of placeholder text and a bulleted list with two items.

AutoSave Off PDF_accessibility... Search (Alt+Q) Laura Solomon

File Home Insert Draw Design Layout References Mailings Review View Help Picture Format

Editor Thesaurus Word Count Proofing Read Aloud Speech

Check Accessibility

Alt Text

<< Navigation Pane

Focus

Options: Accessibility

What's that called again?

TAKE OUR QUICK SURVEY

Help us help YOU!

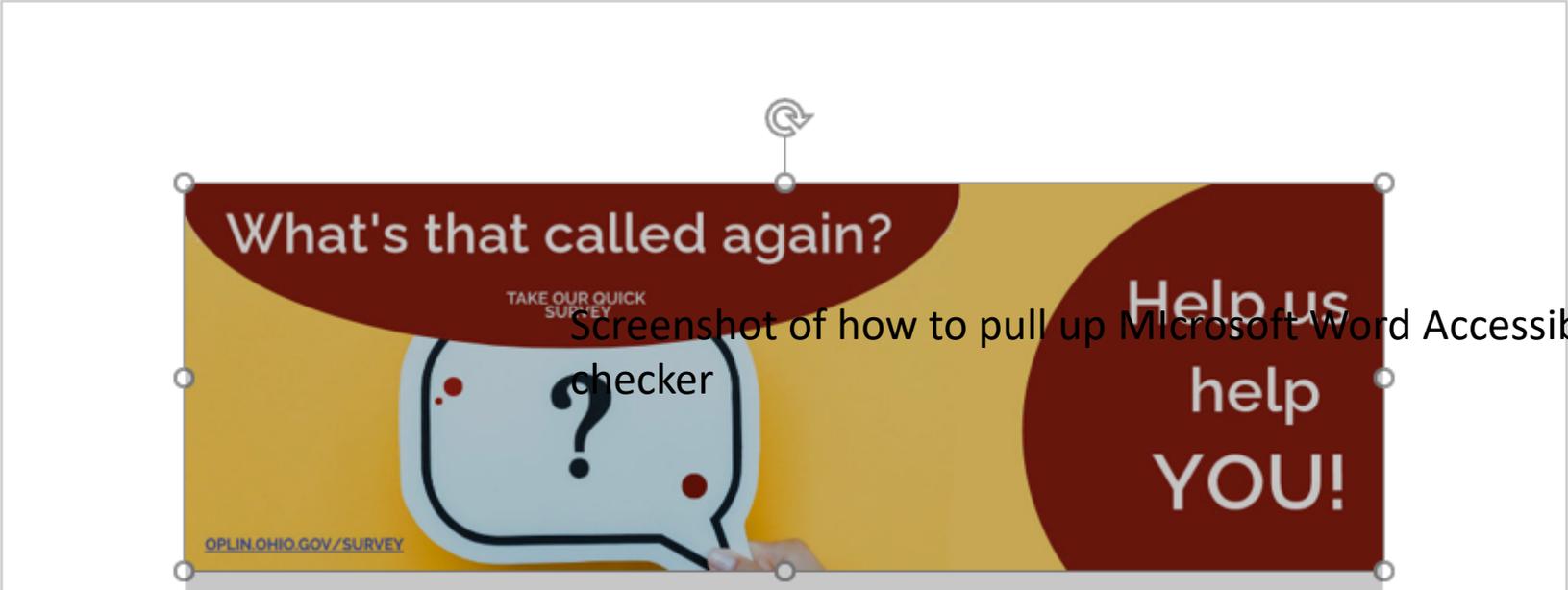
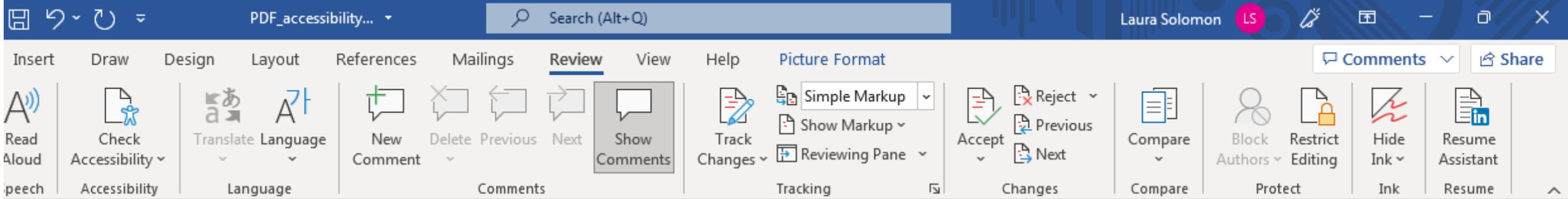
OPLIN.OHIO.GOV/SURVEY

Section One

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

- List Item 1
- List Item 2

Page 1 of 1 90 words English (United States) Text Predictions: On Accessibility: Investigate Focus



Screenshot of how to pull up Microsoft Word Accessibility checker

Accessibility

Inspection Results

Intelligent Services

▼ Suggested alternative text

Picture 3

Recommended Actions

- Verify description
- Mark as decorative

Other Suggestions

- Learn more

Keep accessibility checker running while I work

Additional Information

Why Fix?

There is alternative text in your document that was automatically generated by an intelligent service. Review each suggestion carefully to make sure it accurately describes your picture. If you want to change the suggestion, just type over it.

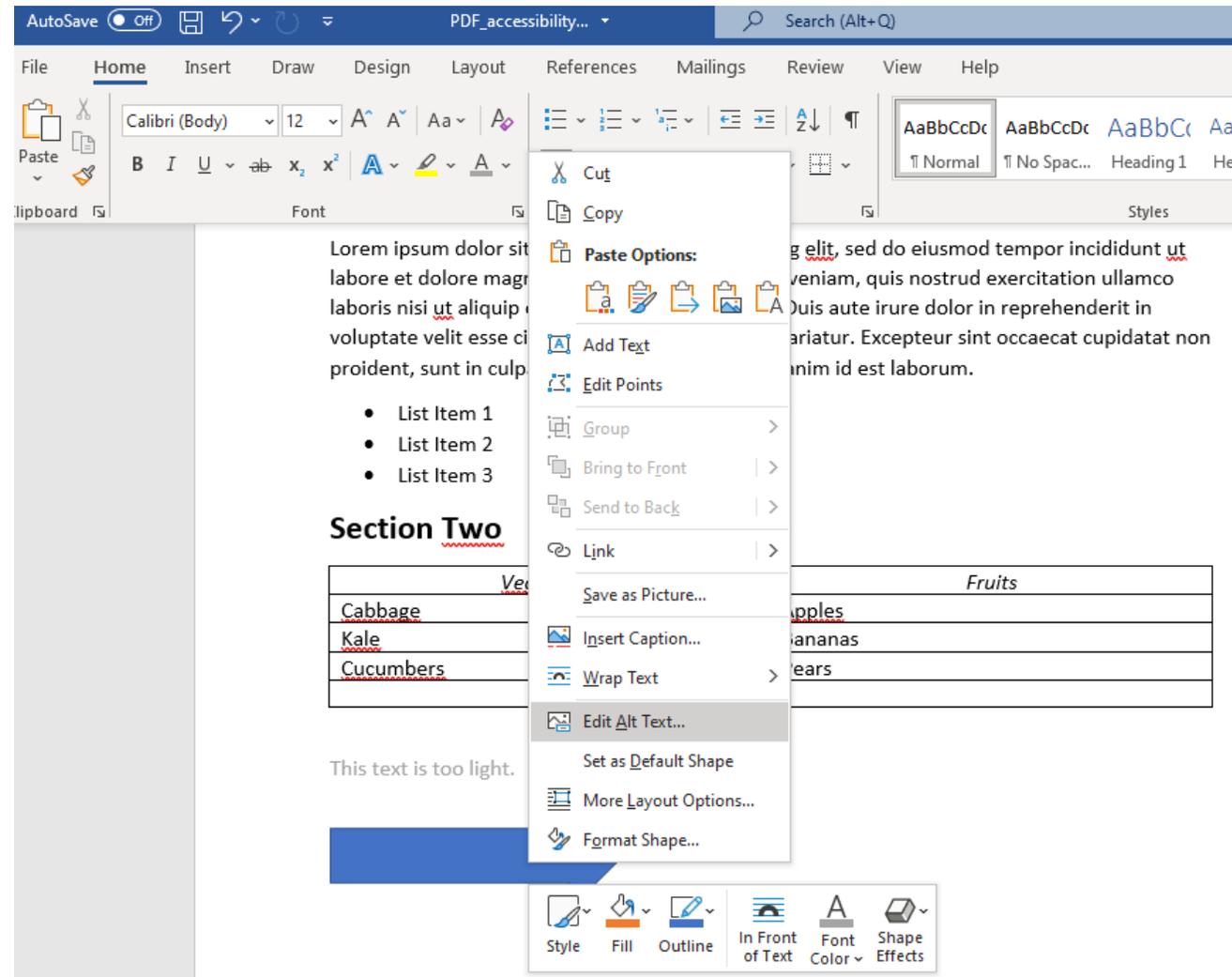
[Read more about making documents accessible](#)

Section One

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

- List Item 1
- List Item 2

Identify the meaning of shapes and icons that you might use



6. Ensure color contrast ratios are met

PDF_accessibility... Search (Alt+Q) Laura Solomon

Insert Draw Design Layout References Mailings Review View Help

(Body) 12 A^ A^ Aa A Font Paragraph Styles Editing Voice Editor Reuse Files

Comments Share

Find Replace Select Dictate Editor Reuse Files

Inspection Results

Warnings

- Hard-to-read text contrast
This text is too light.

Intelligent Services

- Suggested alternative text
Picture 3

Keep accessibility checker running while I work

Additional Information

Why Fix?
There is alternative text in your document that was automatically generated by an intelligent service. Review each suggestion carefully to make sure it accurately describes your picture. If you want to change the suggestion, just type over it.

[Read more about making documents accessible](#)

English (United States) Text Predictions: On Accessibility: Investigate Focus 100%

Paragraph: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

- List Item 1
- List Item 2
- List Item 3

Section Two

<i>Vegetables</i>	<i>Fruits</i>
Cabbage	Apples
Kale	Bananas
Cucumbers	Pears

This text is too light.

Other contrast checkers

- WebAIM
(<https://webaim.org/resources/contrastchecker/>)
- Color Contrast Checker
(<https://colors.co/contrast-checker/112a46-acc8e5>)
- WCAG Color Contrast Checker
(<https://accessibleweb.com/color-contrast-checker/>)

7. Resist the urge to use tables to manage your content layout

NO

Here is some text



Here is some more text.



Here is yet more text.



YES

Vegetables	Fruits
Cabbage	Apples
Kale	Bananas
Cucumbers	Pears

8. Declare header row in any data tables you create

The screenshot shows the Microsoft Word interface with the **Table Design** ribbon selected. In the **Table Style Options** group, the **Header Row** checkbox is checked. The main document area contains a table with two columns: **Vegetables** and **Fruits**. The table data is as follows:

Vegetables	Fruits
Cabbage	Apples
Kale	Bananas
Cucumbers	Pears

Below the table, the text "This text is too light." is shown with a blue arrow pointing to the right. On the right side, the **Accessibility** pane is open, displaying an error: **No header row**. The **Recommended Actions** for this error are:

- Use first row as header
- Mark as layout table

The **Additional Information** section explains: "A table header row contains column headings that provide context and aid navigation of the table. People who can't see the table can have column headings read aloud." It also provides steps to fix the issue: "To set a header row".

9. Ensure that links have a clear purpose

~~Click here for more
bestsellers~~

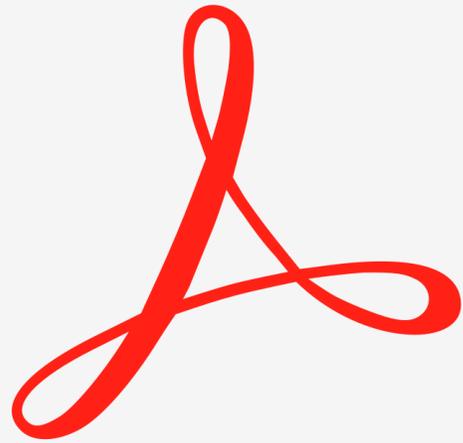
More bestsellers

10. Remember not to leave inline bookmarks hanging without its partner link

The screenshot displays the Microsoft Word interface. The 'Insert Hyperlink' dialog box is open, showing the 'Text to display' field with the text 'A link to Section One'. The 'Select a place in this document' section is expanded to show 'Section One' under the 'Bookmarks' category. The 'Text to display' field is highlighted in grey. The 'Accessibility' pane on the right shows 'Inspection Results' with the following items:

- Errors**
 - Missing alternative text (1)
 - No header row
 - Table
- Warnings**
 - Hard-to-read text contrast
 - This text is too light.
- Intelligent Services**
 - Keep accessibility checker running while I work
- Additional Information**
 - Why Fix?
 - A table header row contains column headings that provide context and aid navigation of the table. People who can't see the table can have column headings read aloud.
 - Steps To Fix:
 - To set a header row
 - [Read more about making documents accessible](#)

The status bar at the bottom indicates 'Page 1 of 2', '5 of 105 words', 'English (United States)', 'Text Predictions: On', and 'Accessibility: Investigate'. The zoom level is set to 100%.



PDF

**What about
scans?**



**WHAT DOES THIS
MEAN TO ME,
LAURA?**



What is **OCR**?

Optical

Character

Recognition



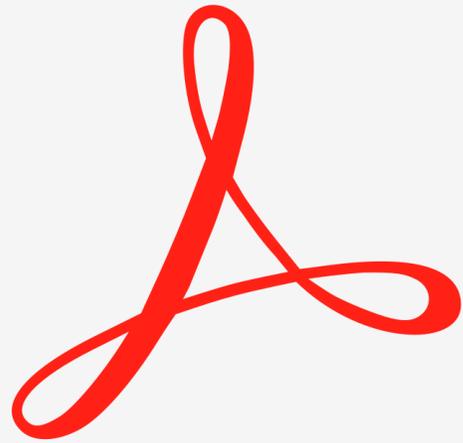
**Can OCR be done
for
FREE?**

YES!

FREE



Google Docs



PDF

Tools to Help



**WHAT DOES THIS
MEAN TO ME,
LAURA?**



LEVEL a c c e s s

30 minute sessions

Adobe Acrobat Pro Webinars

Adobe Acrobat Functionality, Part One

<https://vimeo.com/350145494/f32a50842c>

Adobe Acrobat Functionality, Part Two

<https://vimeo.com/350145515/116fd6e7e6>

Even more from LevelAccess

<https://www.levelaccess.com/resources/pdf-accessibility-basics-webinar-series/>

Mobile App & SAAS

How to create & use

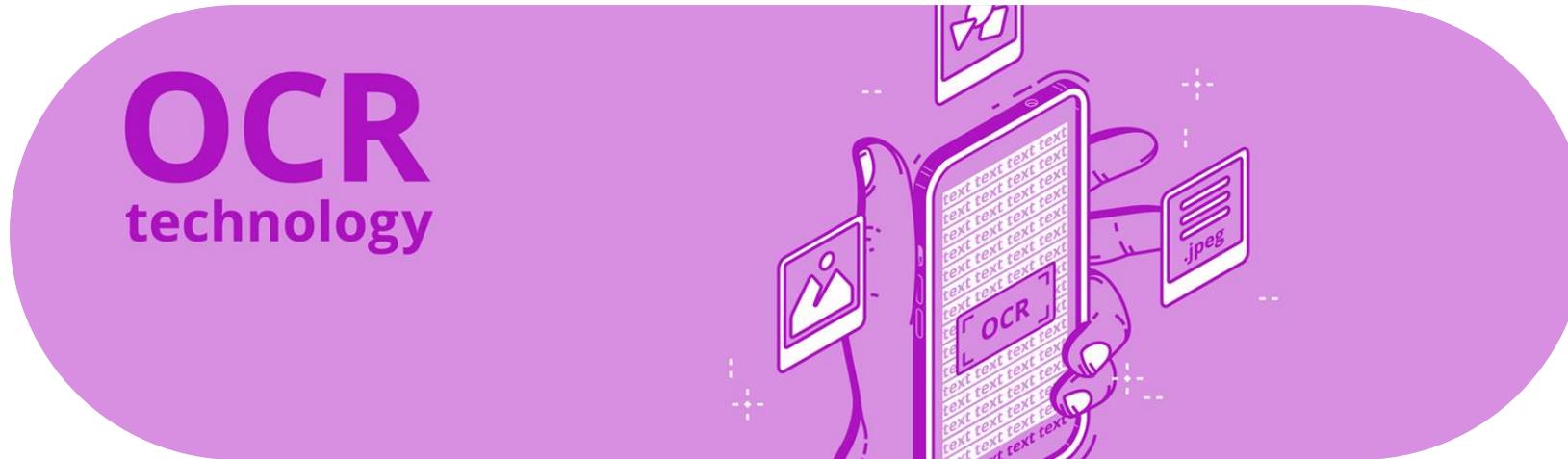
Word

Bookmarks

<https://www.techrepublic.com/article/how-to-create-and-use-word-bookmarks-to-navigate-a-long-document/>



7 Best Free OCR Software Apps to Convert Images Into Text



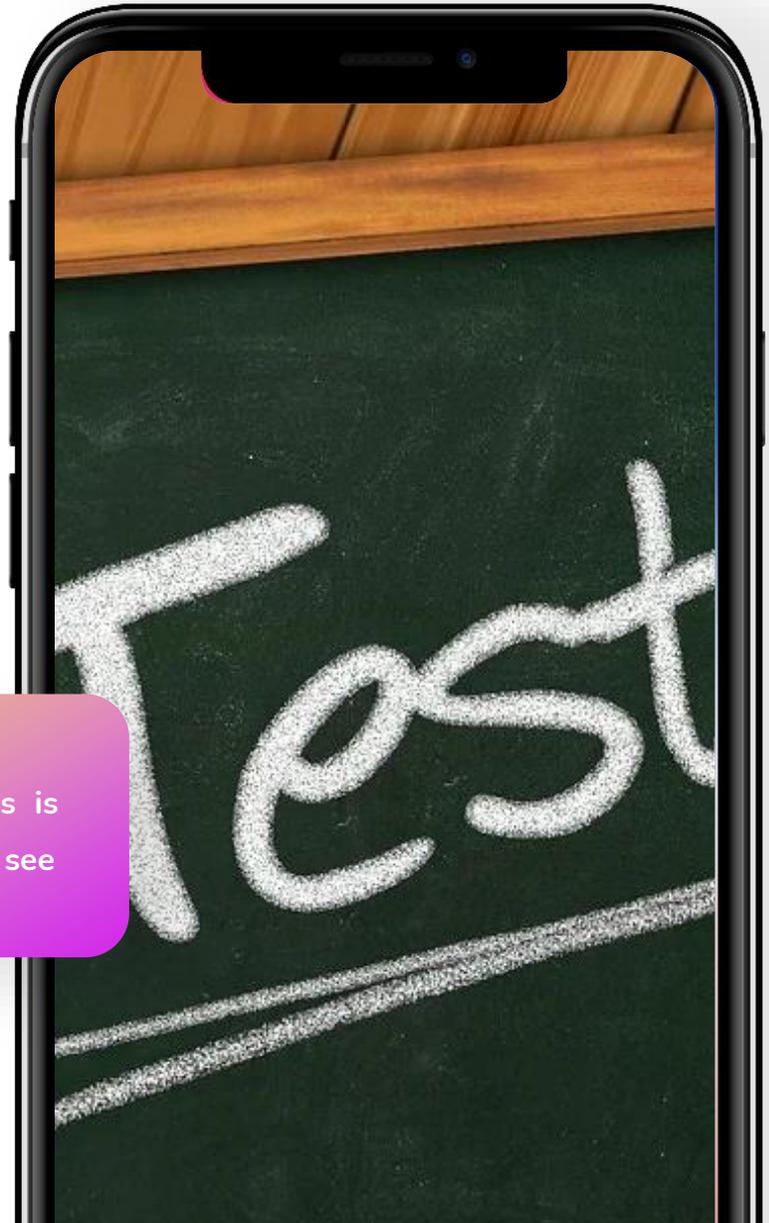
<https://www.makeuseof.com/tag/top-5-free-ocr-software-tools-to-convert-your-images-into-text-nb/>



Test and TOUCH UP



What AT sees is
not what YOU see





In 4 steps to a barrier-free PDF

With PAVE you make your PDF documents barrier-free so that they can be correctly interpreted by common reading programs. The visual representation of your PDF remains unchanged. The [ICT Accessibility Lab of the ZHAW School of Engineering](#) developed PAVE and is making it available free of charge for personal use. Try it! If you want to make large amounts of PDFs accessible, please use [contact us](#).



1. Upload your PDF document to PAVE.

Warning: The maximum permitted file size is **5 megabytes**.

2. PAVE directly carries out the corrections that can be carried out automatically.

3. Simply carry out the remaining correction suggestions in PAVE yourself.

4. Download the now accessible PDF document. The PDF document remains stored on the PAVE server for a maximum of 3 weeks if you do not delete it manually beforehand.

[Start PAVE](#)

PAVE was on [ICT Accessibility Lab](#) [Zurich University of Applied Sciences \(ZHAW\)](#) developed in cooperation with the [Swiss Association of the Blind and Visually Impaired](#).

PAVE wins 1st prize in an international competition

The International Conference on Computers as an Aid to People with Special Needs ICCHP ([International Conference on Computers Helping People with Special Needs](#)) recognizes software projects that serve people with disabilities. At this year's final round in Paris, the team from the ICT Accessibility Labs was able to convince the international jury of their groundbreaking

<https://pave-pdf.org/index.html>



Automatic Correction

PAVE was already able to automatically correct 18 issues.

Title missing

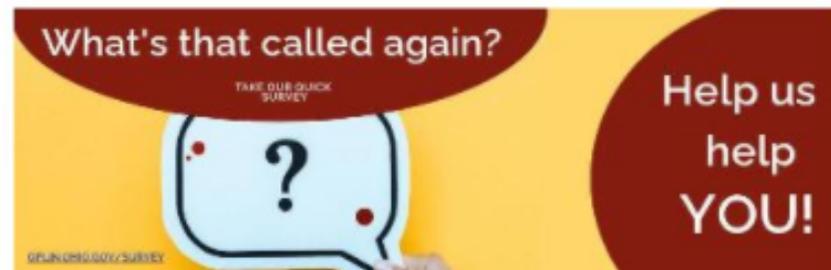
The document's properties contain information such as the document's title and language. Some of these are mandatory. To fix these issues, correct the fields in the document properties.

[EDIT PROPERTIES](#)

Figure has no alternative text

To allow screenreaders to correctly read the document, not only do all elements (texts, images, etc.) have to be tagged correctly. They also have to be ordered in the correct reading order.

Individual issues for each page are listed in the tab ISSUE DETAILS



Section One

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum. [Click here for more information.](#)

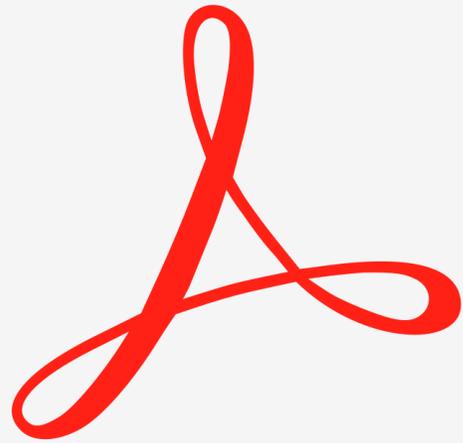
- List Item 1
- List Item 2
- List Item 3

Section Two

Vegetables	Fruits
Cabbage	Apples
Kale	Bananas
Cucumbers	Pears

This text is too light.





PDF

The takeaways



**WHAT DOES THIS
MEAN TO ME,
LAURA?**



Build BETTER

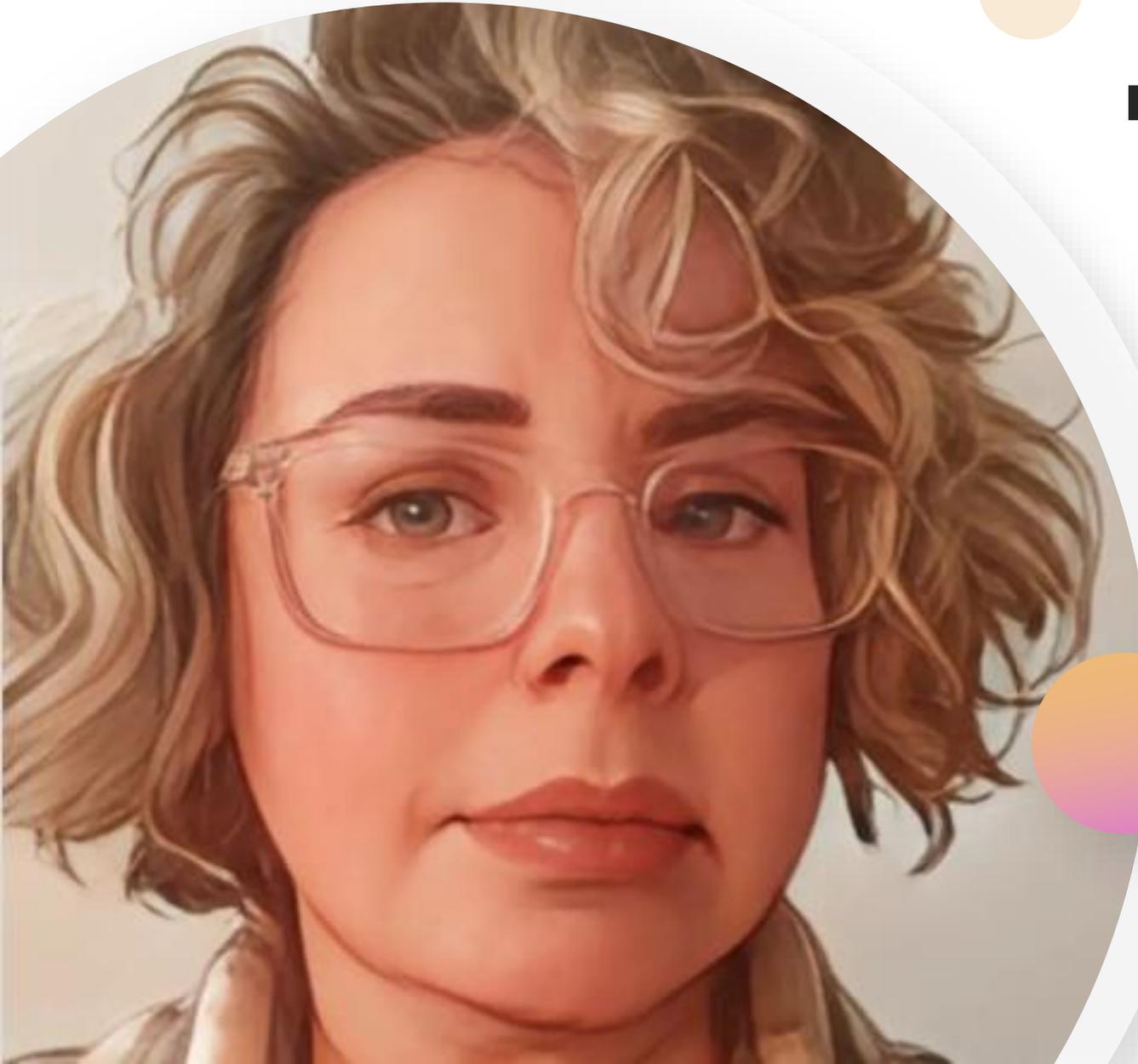
A circular inset image shows a close-up of a sprinter in a starting crouch on a red track. The athlete is wearing black athletic gear with bright green and purple accents. Their hands are on the ground, and their feet are positioned on starting blocks. The background is a blurred red track surface.

Easiest way
to reach
the goal



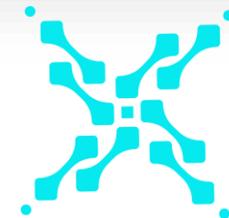
Shift away from PDFs

“The one argument for accessibility that doesn’t get made nearly often enough is how extraordinarily better it makes some people’s lives. How many opportunities do we have to dramatically improve people’s lives just by doing our job a little better?”—Steven Krug



THANK YOU

WWW.MEANLAURA.COM



WHAT DOES THIS
MEAN TO ME,
LAURA?