

10-29-2020

## Library Web Accessibility - What Decision Makers Need to Know

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### Recommended Citation

Chalmers, Adam, "Library Web Accessibility - What Decision Makers Need to Know" (2020). *Library Faculty Presentations & Publications*. 89.[https://digitalcommons.unf.edu/library\\_facpub/89](https://digitalcommons.unf.edu/library_facpub/89)

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# LIBRARY WEB ACCESSIBILITY

What decision makers need to know

Adam Chalmers



# OVERVIEW

## Web Accessibility

- What it means from regulatory and practical standpoint
- Demonstrate accessibility tools that can be used to evaluate web content
- How to make web content accessible
- Where is the profession at regarding accessibility



# WHAT IS WEB ACCESSIBILITY?



# REGULATORY

- Disclaimer!
- Legislation and Regulations
  - Section 504 of the Rehabilitation Act of 1973 prohibits disability discrimination by schools receiving federal financial assistance
  - Title II of the Americans with Disabilities Act of 1990 (Title II) prohibits disability discrimination by public entities, including schools and libraries
    - 2010 ADA title 2 updated
  - Section 508 applies to federal agencies – aligned WCAG 2.0



# WEB CONTENT ACCESSIBLY GUIDELINES

- “WCAG is a technical standard, not an introduction to accessibility” (World Wide Web Consortium, 2020)
- Web Content Accessibility Guidelines
  - WCAG 2.0 Standard December 2008
  - WCAG 2.1 Standard June 2018
- Testable success criteria of: A, AA, AAA
- Four Principals of: Perceivable, Operable, Understandable, Robust.



# EXAMPLES OF WCAG 2.1 GUIDELINES

- Guideline 1.2 – Time-based Media
  - 1.2.2 Captions (Prerecorded) Level A
  - 1.2.5 Audio Description (Prerecorded) Level AA
  - 1.2.6 Sign Language (Prerecorded) Level AAA



A Few Good Men- with captions



Frozen- trailer with audio description



2020 Forum on Aging in Rural Oregon Assistive Technology Webinar (with ASL interpretation)



# EXAMPLES OF WCAG 2.1 GUIDELINES

- Guideline 3.3 – Input Assistance
  - 3.3.1 Error Identification Level A
  - 3.3.3 Error Suggestion Level AA
  - 3.3.5 Help Level AAA

Name: (required)

This field is required.

AA

Email \*

! Please include an '@' in the email address. 'Adam.Chalmers' is missing an '@'.

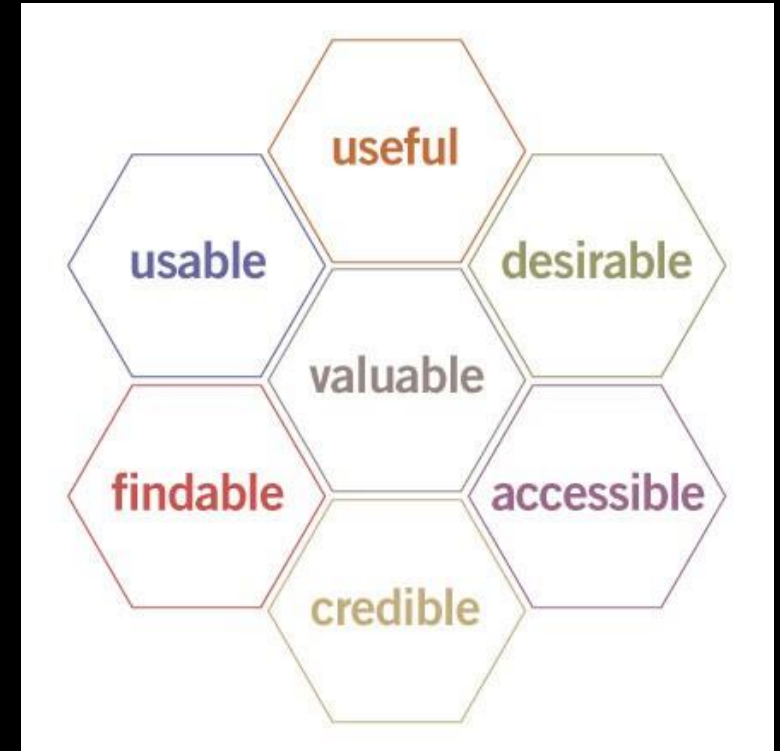
AAA





# END USER ACCESSIBILITY

- Good accessibility testing and feedback
- Accessibility is a part of user experience
- <https://www.usability.gov/>



User Experience Honeycomb from (Morville, 2004)



# SCREEN READERS

- JAWS (Job Access With Speech)
- Windows accessibility has a narrator option
- NVDA (NonVisual Desktop Access)

## Browse Mode

Name	Key	Description
Toggle browse/focus modes	NVDA+space	Toggles between focus mode and browse mode
Exit focus mode	escape	Switches back to browse mode if focus mode was previously switched to automatically
Refresh browse mode document	NVDA+f5	Reloads the current document content (useful if certain content seems to be missing from the document. Not available in Microsoft Word and Outlook.)
Find	NVDA+control+f	Pops up a dialog in which you can type some text to find in the current document. See <a href="#">searching for text</a> for more information.
Find next	NVDA+f3	Finds the next occurrence of the text in the document that you previously searched for
Find previous	NVDA+shift+f3	Finds the previous occurrence of the text in the document you previously searched for
Open long description	NVDA+d	Opens a new window containing a long description for the element you are on if it has one.

## Single Letter Navigation

The following keys by themselves jump to the next available element, while adding the shift key causes them to jump to the previous element:

- h: heading
- l: list
- i: list item
- t: table
- k: link
- n: nonLinked text
- f: form field
- u: unvisited link
- v: visited link

From ("NVDA," 2020)





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## Confronting a Pandemic

Learn how Smithsonian experts are exploring key questions related to the disease's origins, transmission, and impact.

# REGULATORY/LEGAL COMPLAINTS

- OCR (Office of Civil Rights- Department of Education)
  - May 2017, Seton Hall University (SHU) from (Leonard, 2018)
  - Recent resolutions with OCR Search [https://ocrcas.ed.gov/ocr-search?f%5B0%5D=it%3APost%20Secondary&f%5B1%5D=state\\_fullname%3A637](https://ocrcas.ed.gov/ocr-search?f%5B0%5D=it%3APost%20Secondary&f%5B1%5D=state_fullname%3A637)
  - Coronavirus <https://youtu.be/J8Ewp5ZKidE>
- Lack of compliance can also lead to lawsuits against institutions





# EVALUATING ACCESSIBILITY

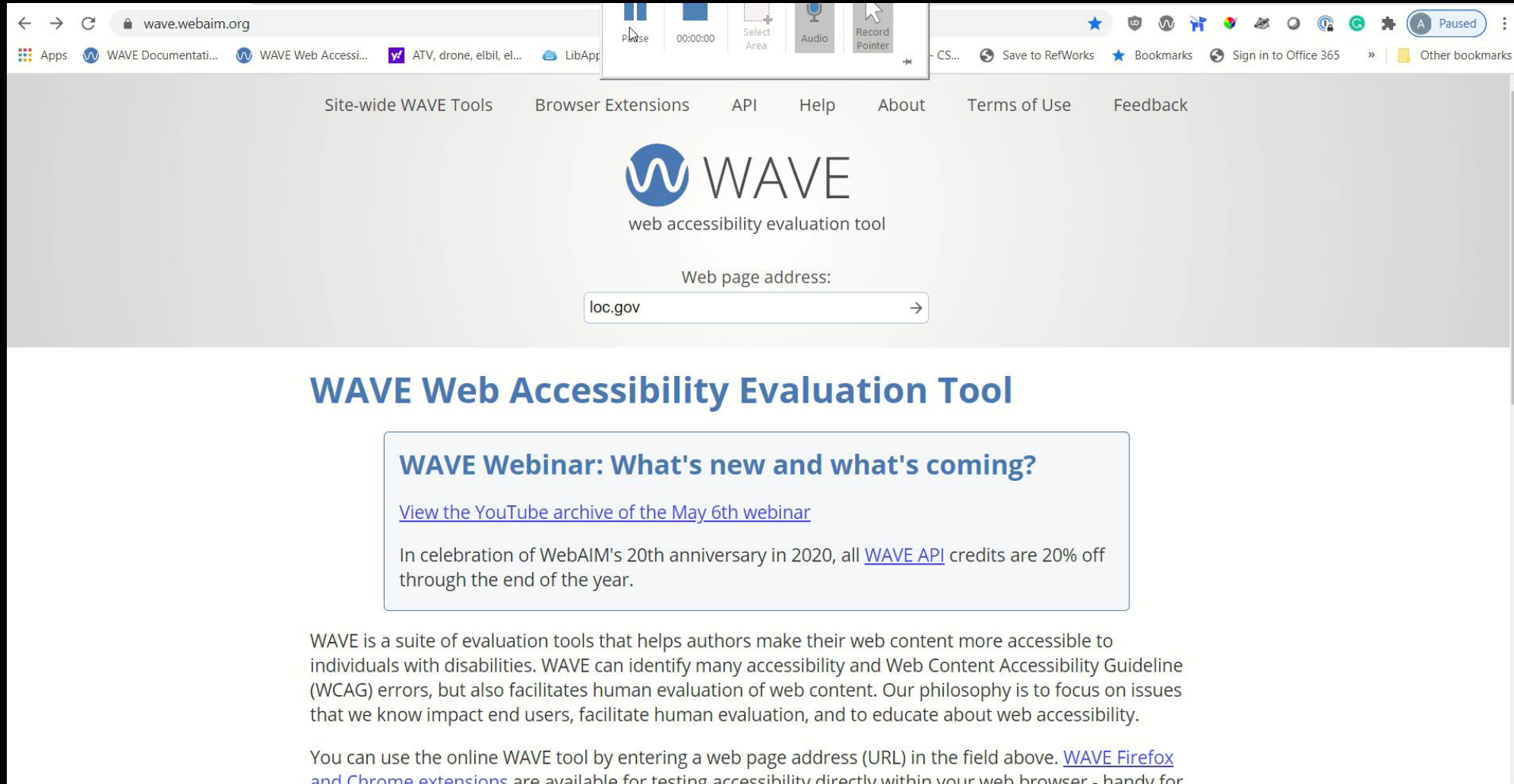


# ASSESSMENT TOOLS OVERVIEW

- Website Itself
  - WAVE
  - Contrast checking tools
  - Level Access- AMP
- Documents
  - Adobe DC
  - Microsoft Office accessibility tools
- Vendor Resources
  - Voluntary Product Accessibility Template (VPAT)



# ASSESSMENT TOOLS WEBSITE



The screenshot shows the WAVE website in a web browser. The address bar displays 'wave.webaim.org'. The browser's toolbar includes various icons for navigation and extensions. The website's navigation menu at the top includes 'Site-wide WAVE Tools', 'Browser Extensions', 'API', 'Help', 'About', 'Terms of Use', and 'Feedback'. The main heading is 'WAVE web accessibility evaluation tool'. Below this is a form with the label 'Web page address:' and a text input field containing 'loc.gov', followed by a right-pointing arrow button. A prominent blue banner reads 'WAVE Web Accessibility Evaluation Tool'. Below the banner is a light blue box containing the text 'WAVE Webinar: What's new and what's coming?' followed by a link 'View the YouTube archive of the May 6th webinar'. Below this box, a paragraph states: 'In celebration of WebAIM's 20th anniversary in 2020, all [WAVE API](#) credits are 20% off through the end of the year.' Further down, another paragraph explains: 'WAVE is a suite of evaluation tools that helps authors make their web content more accessible to individuals with disabilities. WAVE can identify many accessibility and Web Content Accessibility Guideline (WCAG) errors, but also facilitates human evaluation of web content. Our philosophy is to focus on issues that we know impact end users, facilitate human evaluation, and to educate about web accessibility.' The final paragraph states: 'You can use the online WAVE tool by entering a web page address (URL) in the field above. [WAVE Firefox](#) and [Chrome extensions](#) are available for testing accessibility directly within your web browser - handy for

From ("WAVE," 2020)



[←](#) [→](#) [↺](#) Not secure | arngren.net

Apps WAVE Documentati... WAVE Web Accessi... ATV, drone, elbil, el... LibApps Home - Lib... Save to RefWorks Content Boxes - CS... Save to RefWorks Bookmarks Sign in to Office 365 Other bookmarks

# www.ARNGREN.net

Teknologi & Gadgets

23 Butikker

**Index**

- Akvarium
- Alarm
- Alkotester
- ATV (el.)
- Bildefliser
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- Bilbane
- Conrad-elektronikk
- Digital-Kikkert
- Disko-Lys
- Dummy-Kamera
- DVD-Spiller
- Elektronikk & DAB
- EL-Scooter & Bil
- Figurer
- Golf-biler (m/skilt)
- Hobby & RC
- Hoverpod
- HP-Måler (Bil)
- Isbitmaskin
- Kamera (trådløst)
- Kino (bærbar)
- Kompass (Bil/Båt)
- Laser-Jamer (Bil)
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- Qversetter (44 spkr)
- PC-mini (9"), 2.
- Rakett-Fly
- RC Produkter
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- Robot-Stovsuger
- Roboter
- Solcelle-Ryggsek
- Star Wars
- Sykkel-PC s.h
- Toabane (til PC)

**Solcelle-pakker**

Nyhet!

8.998,-

**Se alle våre el-Kjøretøy til Barn og Ungdom**

**Norges største utvalg**

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**el-biler til barn**

12V  
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4WD fra kr. 1.798,-

Ingen alders-grense

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PEDALS

Alle Produktene på denne siden lagerføres hos ARNGREN i Oslo. Se Lagerkoden etter Prisene (lev. 2 - 5 dager):

- Er på Lager
- Kommer før 3 uker
- Lengre enn 3 uker

**el-bil fra 34.998**

3-hjul Cargo-el-Bike

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**Drone-Bike**

Lofteevne: 8kg

kr. 19.998,-

**Bygg ditt eget 2-seters Helikopter.**

kr. 398.000,-

**Avatar-Gunship.** Er det råeste Helikopteret noensinne.

**Video**

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**Forklaringen på Kamera**

1050 29,-

Trådløs Sykkel-PC 5030 kr. 29,-

Max 1 pr. kunde

RC Helikopter RC Tilbud

7044 kr. 29,- 010

**3-Hjuls el-sykkel**

**elsykkel**

**Fatbike-1500w**

**el-bil** kr. 89.998,-

**Mercedes SUV m/ Gummi-Hjul**

fra kr. 2998,-

**el-ATV**

**Bensin-ATV**

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**G-Tog**

Nyhet

**el-Bil ; Cross-Rider**

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**4WD**

**el-moped med skilt (16 år)**

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**el-ATV med skilt (16 år)**

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**Fatbike-500w**

**el-sykkel m/Oljestyrt skivebremser**

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**Luft-jekk (4.2 tonn) til Bil eller Båt.**

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**el-ATV**

**Kraftig Hjul sykkel**

Nyhet!

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**RC Tank i Metall (55 cm) med Luftkanon**

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**RC-Produkter G-Tog**

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**Roboter Elektronikk**

**Roboter Elektronikk**

**Roboter Elektronikk**

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Ta alltid ut 230Vac Adapteren når du ikke er tilstede, eller sover

100km/t

m/Skilt

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kr. 59.998,-

**EL-Scooter 5000 watt**

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20 - 144x

**Styreenhet & Fordelelere til Bil**

fra kr. 2998,-

**RC Fly-Båt**

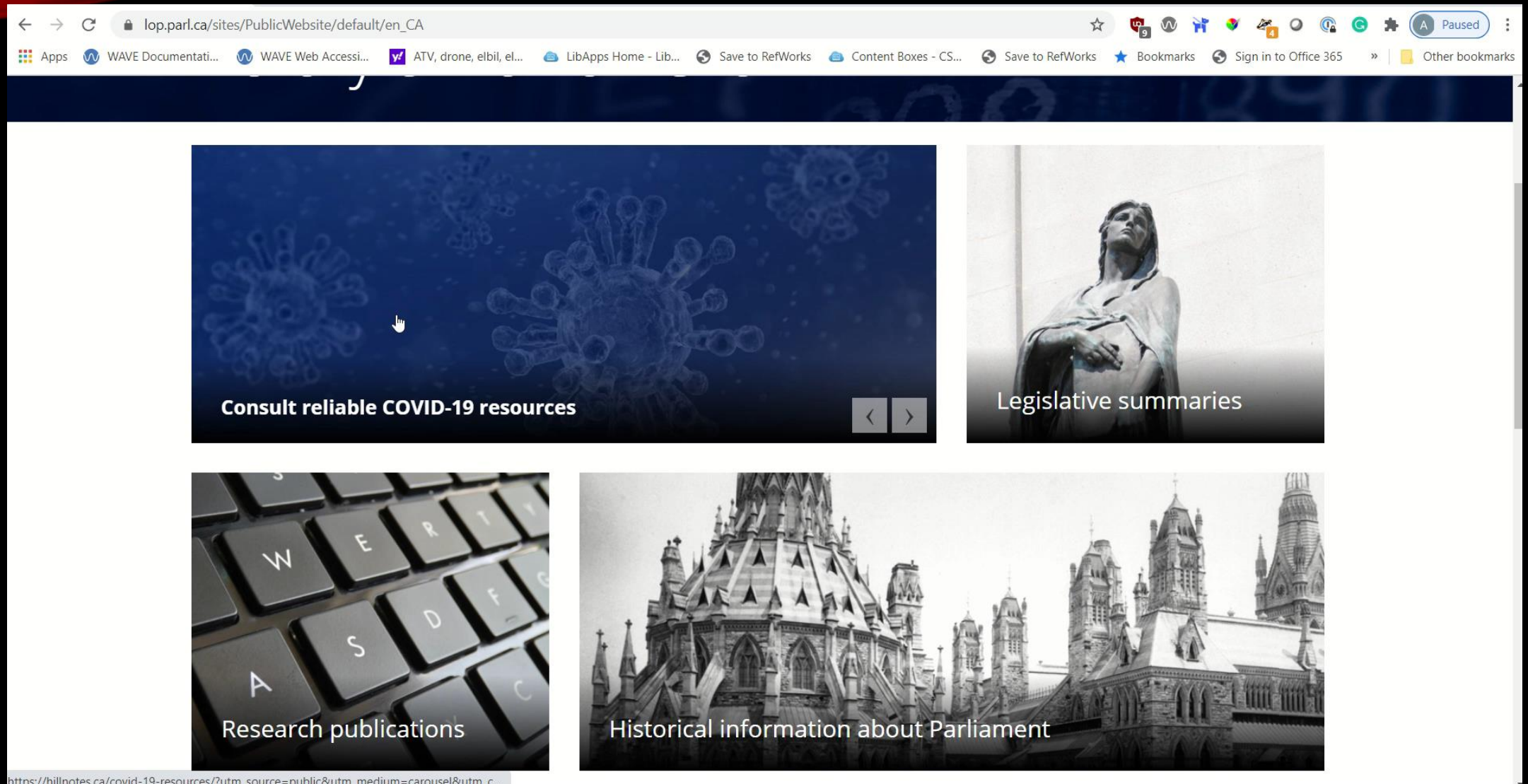
70 cm lang

fra kr. 1299,-

**Video**



# CONTRAST CHECKING



From (Rumoroso, 2020)

# LEVEL ACCESS- AMP

- Scans whole web presence
- Indicates the error
- Includes staff training videos
- Licensed by UNF

Best Practice	Description	Note	Inst. Severity	Module
Ensure links do not directly target images	<a href="http://purl.fcla.edu/fcla/dl/nf00000049.jpg" target="_blank">Early Banking Days in Florida: an Informal Talk</a>	This A has an href attribute set 7 to an image file reference	7	UNF - Thomas G. Carpenter Library - Barnett Banks
Ensure links do not directly target images	<a href="http://purl.fcla.edu/fcla/dl/nf00000057.jpg" target="_blank">Reminiscences of Fifty Years in the Barnett Banks</a>	This A has an href attribute set 7 to an image file reference	7	UNF - Thomas G. Carpenter Library - Barnett Banks
Ensure links do not directly target images	<a href="http://purl.fcla.edu/fcla/dl/nf00000057.jpg" target="_blank">Bion Hall Barnett</a>	This A has an href attribute set 7 to an image file reference	7	UNF - Thomas G. Carpenter Library - Barnett Banks



# LEVEL ACCESS - AMP

AMP

Adam Chalmers | Preferences | Support | Give Us Your Feedback | Share Your Ideas | Logout

Enter search terms here Search

AA and SA CMS Folders

Press F11 to exit full screen

Testing in Progress

Assets

Guidance

Toolbox

University

Status

Created 204

Modules 0

Use Cases 0

Automated Testing 204/204 modules (100% Complete)

Manual Testing 0/204 modules (0% Complete)

Functional Testing 0/0 use cases (0% Complete)

Overview

[Documents and Permissions](#)

[Document Inventory](#)

[Mapped Standards and Best Practices](#)

[Report Advisories](#)

[Test Reports](#)

Patterns

[Report Patterns](#)

[Globals and Patterns Detail](#)

Modules

[Report Modules](#)

[Module Details](#)

[Module Testing Status](#)

Violations

[Violations \(BETA\)](#)

[Report Violations](#)

[Violations by Priority](#)

[Violations by Standard](#)

[Violations Detail](#)

[Violations Instances](#)

Use Cases

[Report Use Cases](#)

[My Use Cases](#)

[Show All Use Cases](#)

[Use Case Results](#)

Compliance

[WCAG 2.1 Level A](#)

[WCAG 2.1 Level AA](#)

[WCAG2 A](#)

[WCAG2 AA](#)

Modules by Total Violation

Modules Detail

Use Case Results

Violation Patterns

Findings

[Best Practices Summary](#)

[Best Practices Details](#)

[All Use Cases](#)

Excel Reports

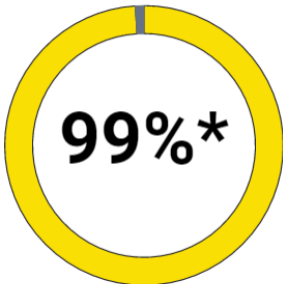
[All Compliance Tables](#)

[Document Inventory](#)

[Violations by Standard](#)

[Use Cases](#)

Overall Report Compliance



99%\*

Compliance Health By Ruleset

WCAG 2.1 Level A	99%*
WCAG 2.1 Level AA	100%*
WCAG2 A	98%*
WCAG2 AA	99%*

Top Issues

P	Issue	Occurrence	S	N	T
1	Ensure the language of a document is set	< 1%	3	6	2

AMP: 9.26.1 | © 2005 - 2020 Level Access. All rights reserved. | 800.889.9659 | support@levelaccess.com

Privacy | Security | Credits | License

From ("AMP," 2020)

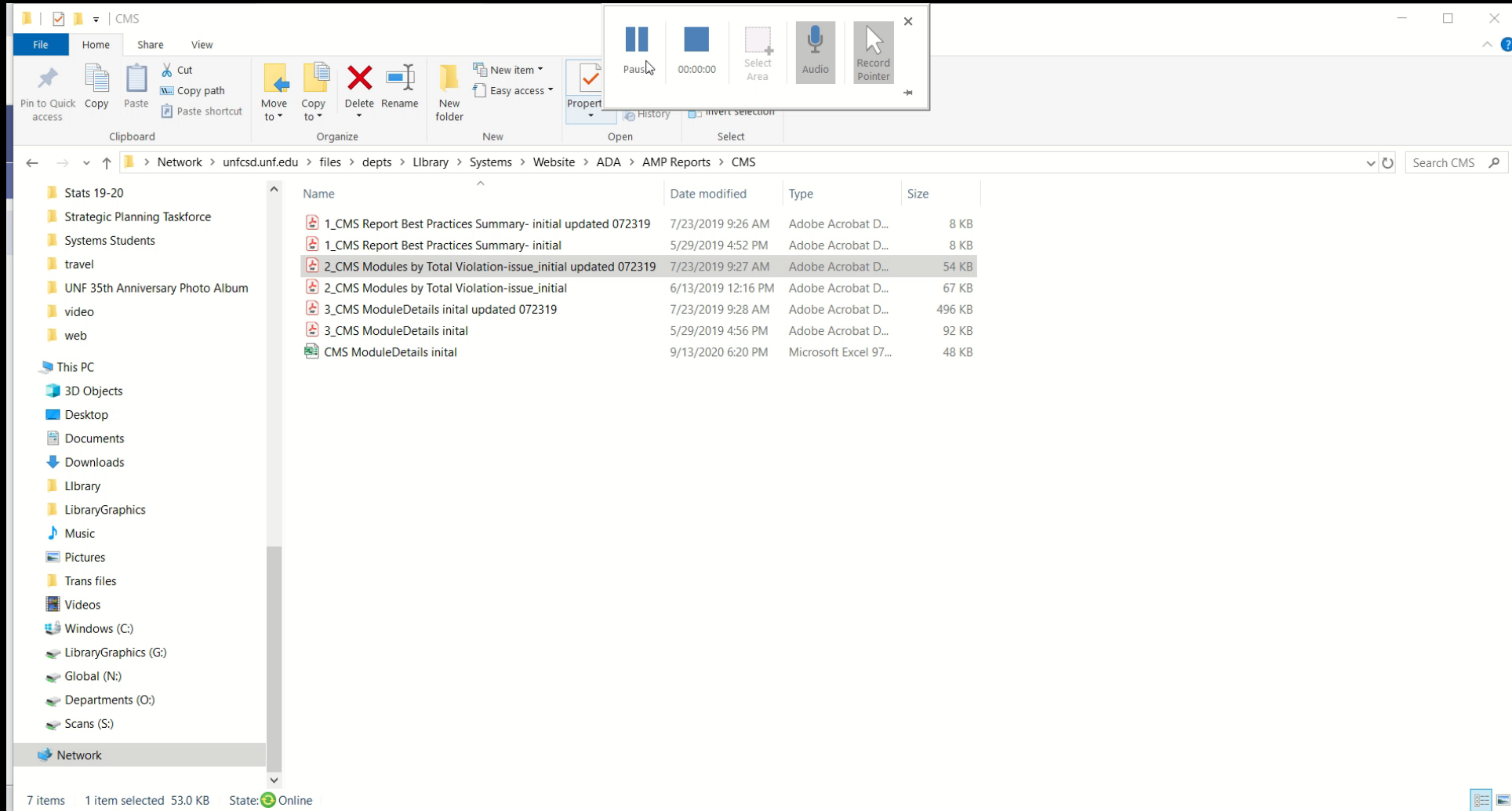


# ASSESSMENT TOOLS FOR DOCUMENTS

- Adobe for PDFs
- Microsoft Office Products



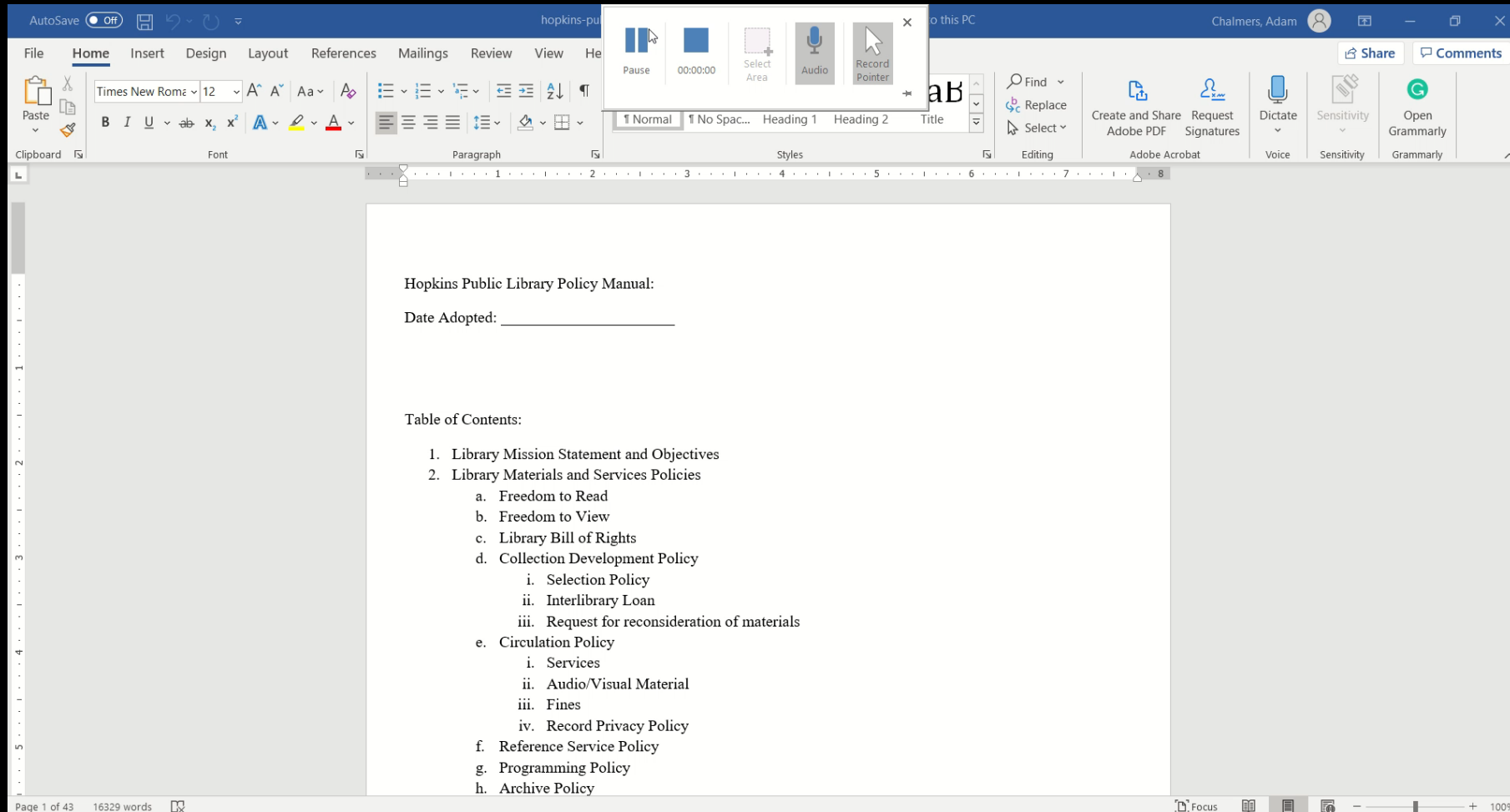
# ADOBE DC



From ("Adobe Acrobat Pro DC ," 2020)



# MICROSOFT OFFICE - WORD

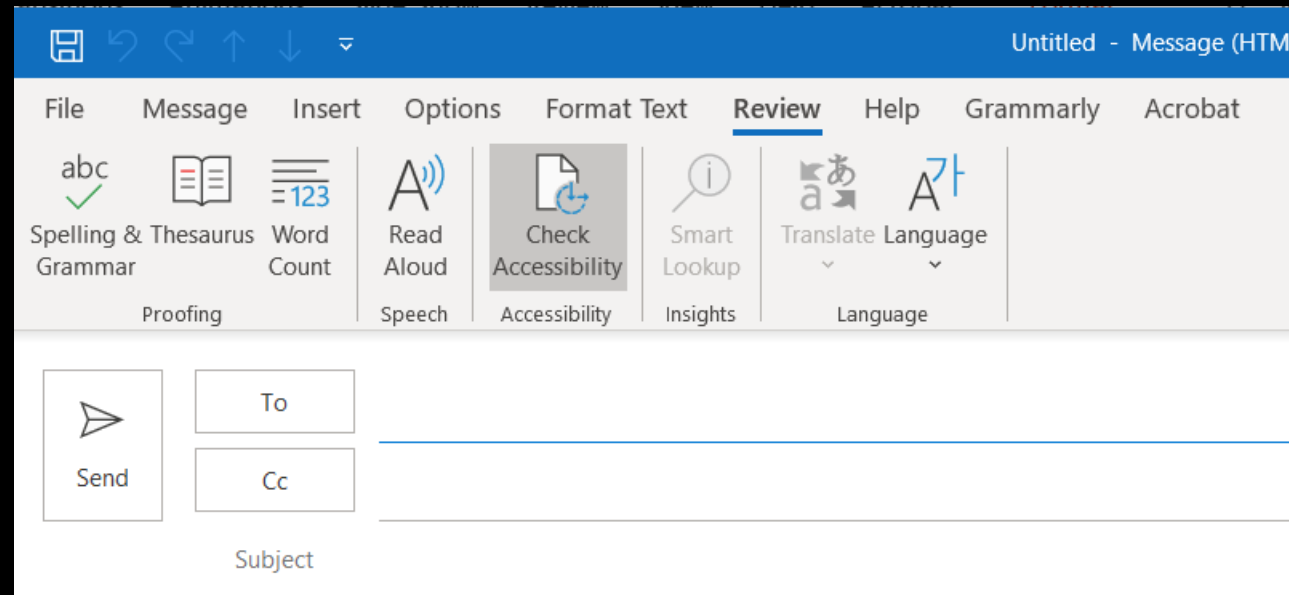


From ("Word," 2020)



# MICROSOFT OFFICE

- Review
  - PowerPoint
  - Excel
  - Outlook



From ("Outlook," 2020)



# VENDORS AND VPATs

- Compliance with Section 508
- Only required for the Federal Government
- Good starting point to access resources during the consideration and acquisition process
- Does not relinquish the libraries responsibility
- Enhancing Visibility of Vendor Accessibility Documentation (Kent & O'Reilly, 2018).



# IMPROVING ACCESSIBILITY



# PROCESS

- Scope of work
  - Who controls it?
    - Campus or county IT, library
    - Your web presence vs. vendors
  - How many different subsystems?
    - Forms, OPAC, chat services, calendar services, institutional repositories



# PROCESS

- Assessment and reassessment
  - Manual page by page review
  - Site Improve Intelligence Platform, PopeTech
- Who is going to make the necessary changes
  - Current web developer
  - Contract with a designer
  - Internal or external departments
- Current web platform/redesign



# PROCESS

- Evaluate time needed
- Ongoing process
  - Training
  - Best practices
  - Constant reevaluation
- Overall usability
  - Need to periodically evaluate site presence
  - Usability testing
  - Make changes and updates



# DON'T PANIC

- Start somewhere
- Heidi Schroeder, accessibility coordinator at the Michigan State University:  
“With accessibility work, it’s important to remember that doing something is better than doing nothing. Although it’s easy to quickly feel like there is a lot your library may not be doing quite yet in terms of accessibility, try something. And don’t let the perfect be the enemy of the good.”  
As quoted in (Lipkin, 2018)
- Explore the resources available

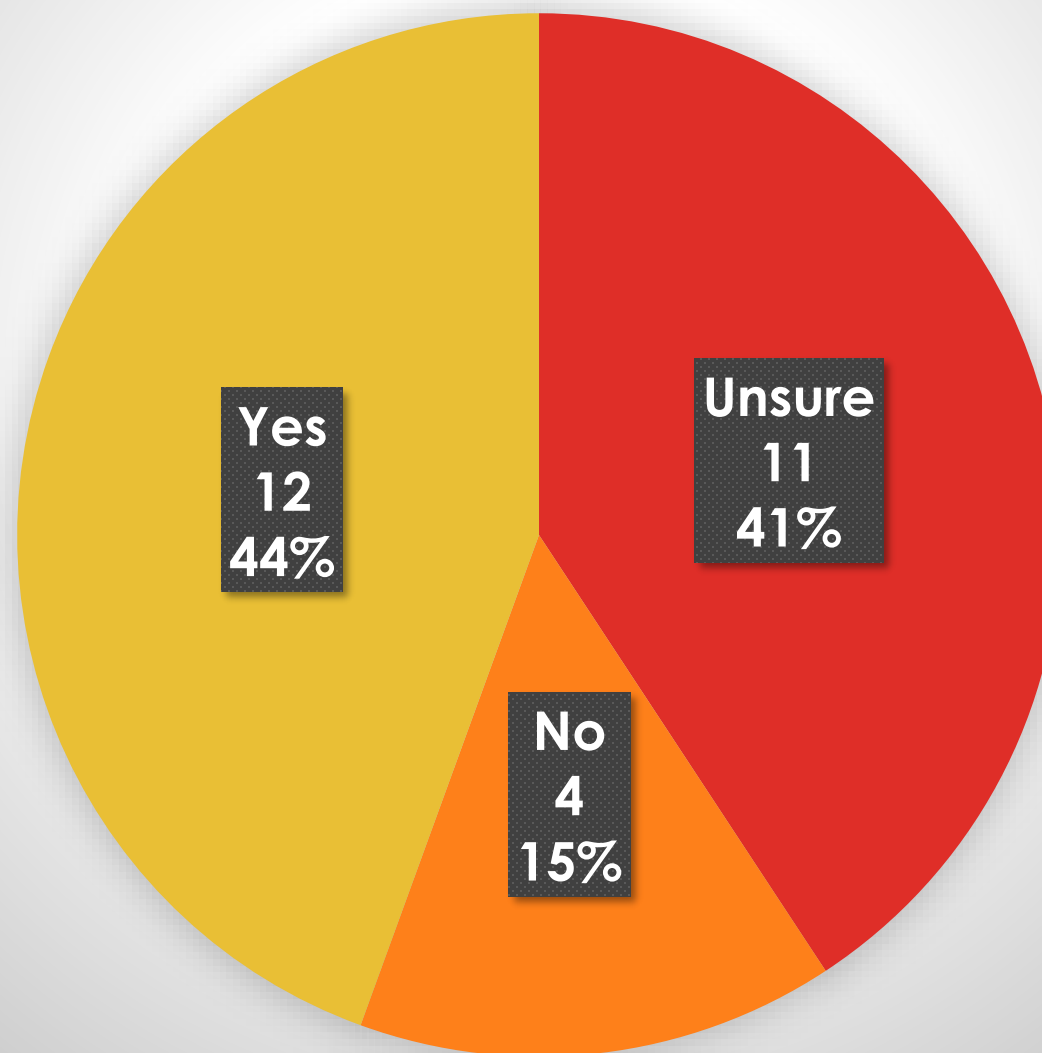




# PROVIDING A FRAME OF REFERENCE

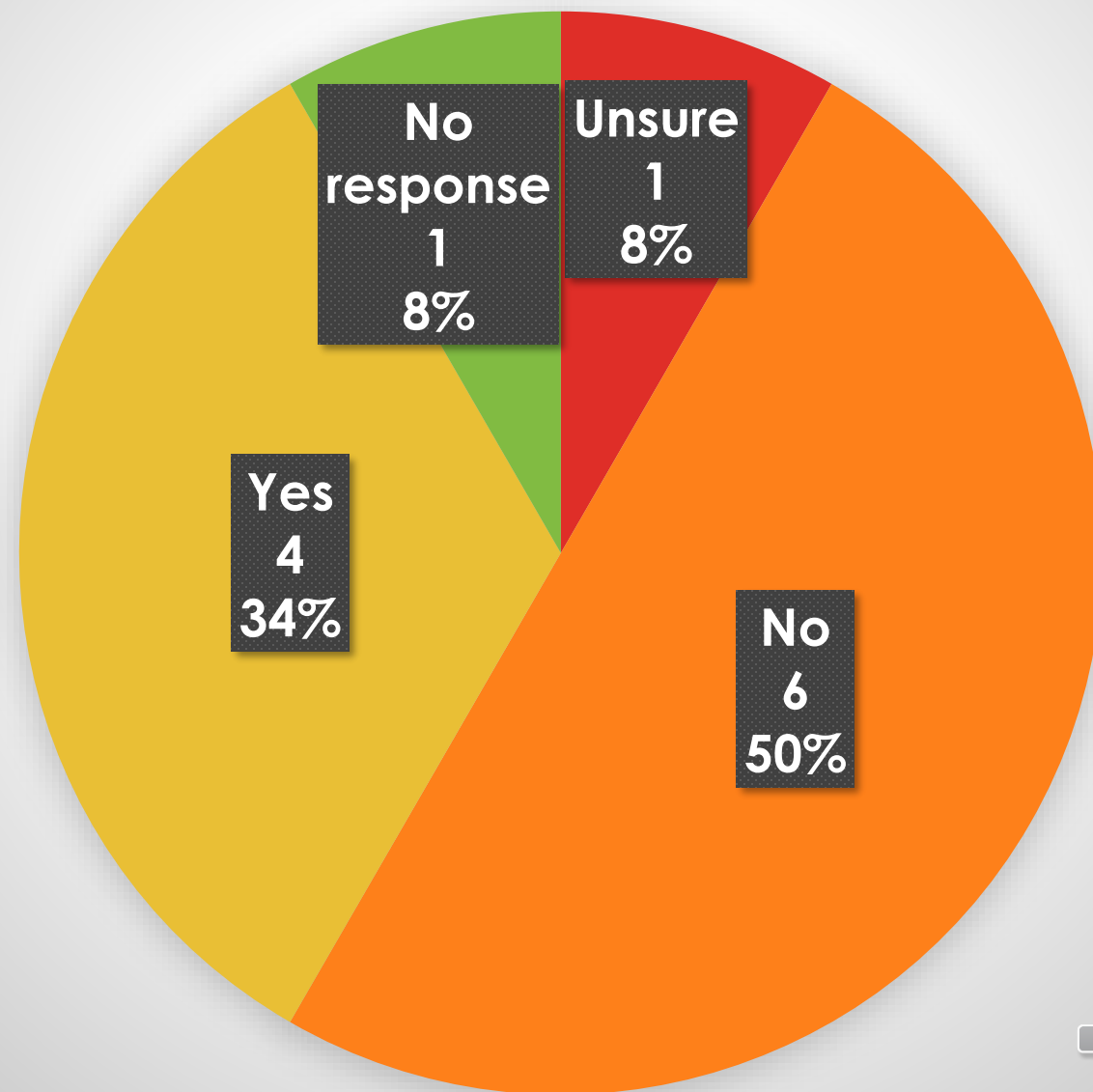
- Survey Data
  - 27 respondents
  - From the Library Information Technology Association (LITA) listserv

Does your educational institution currently have an ADA compliance policy in place governing the library web presence?



## PROVIDING A FRAME OF REFERENCE

Does the library receive support  
from other departments to ensure ADA  
compliance?



# DATA FROM LYRASIS

## LYRASIS 2019 ACCESSIBILITY SURVEY REPORT: Understanding the Landscape of Library Accessibility for Online Materials

Table 3.

Does your institution have an accessibility policy for content acquisition?	Count	Percentage
Yes - a formal policy, e.g. a written policy approved by relevant administration	13	14%
Yes - an informal policy, e.g. rule of thumb to generally follow	22	24%
No	36	39%
Other (please specify)	12	13%
Total Responses	83	

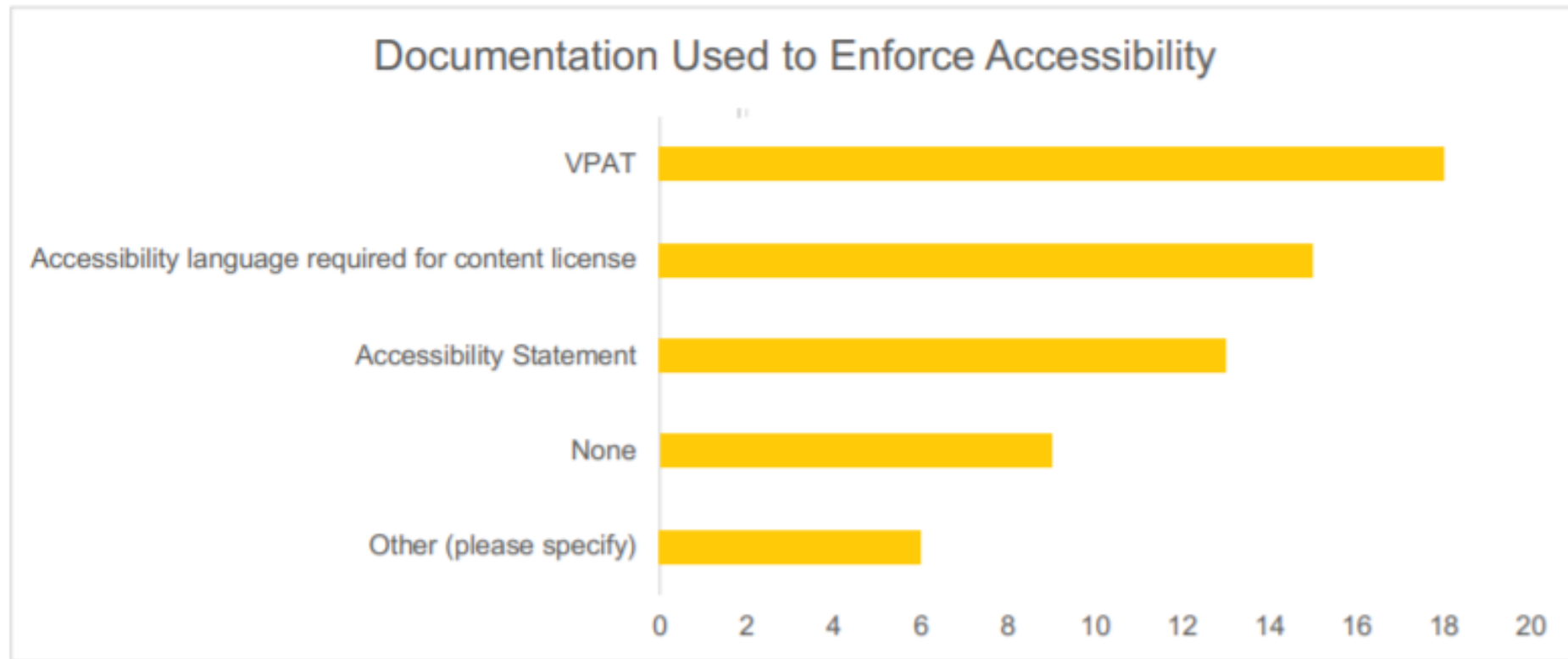
Figure From (Rosen & Grogg, 2019)



# DATA FROM LYRASIS

**Question 6: What documentation do you request from content providers to enforce your accessibility policy?**

Chart 3.



Note: Respondents were allowed to choose multiple items for this question, in case they use more than one method for enforcing their policies. Figure from (Rosen & Grogg, 2019)



# DATA FROM LYRASIS

Table 7.

<b>Does your institution have an accessibility policy in place that applies to the content you create and make available on the World Wide Web?</b>	<b>Count</b>	<b>Percentage</b>
Yes - a formal policy, e.g. a written policy approved by relevant administration	27	28%
Yes – an informal policy, e.g. rule of thumb to generally follow	28	29%
No	28	29%
Other (please specify)	13	14%
<b>Total Responses</b>	<b>96</b>	

Figure from (Rosen & Grogg, 2019)



# SUMMARY

- What accessibility means from regulatory and practical standpoint
- Demonstrate accessibility tools that can be used to evaluate web content
- Discussed how to make web content accessible
- Shared data about where the profession is at regarding accessibility





# CONTACT INFORMATION

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# RESOURCES AND REFERENCES

- Kent Willis, S., & O'Reilly, F. (2018). Enhancing visibility of vendor accessibility documentation. *Information Technology & Libraries*, 37(3), 12-28.  
<https://doi-org.dax.lib.unf.edu/10.6017/ital.V37i3.10240>
- Leonard, E. (2018). Dream the impossible dream: A case study of U.S. federal website accessibility standards compliance at Seton Hall University Libraries. *International Information & Library Review*, 50(1), 34-39. <https://doi-org.dax.lib.unf.edu/10.1080/10572317.2018.1422908>
- Lipkin, A. (2018). Accessibility on campus: legal requirements, the growth of dedicated positions, and enhanced technology are helping academic libraries make content accessible for all. *Library Journal*, 143(15), 24.  
<http://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=edsgcl&AN=edsgcl.553905808&site=eds-live&scope=site>
- Morville, P. (2004). *User experience design*. Semantic Studios. [http://semanticstudios.com/user\\_experience\\_design/](http://semanticstudios.com/user_experience_design/)
- Office for Civil Rights. (2020). *Addressing the Risk of COVID 19 in Schools While Protecting the Civil Rights of Students* [Fact sheet]. U.S. Department of Education. <https://www2.ed.gov/about/offices/list/ocr/docs/ocr-coronavirus-fact-sheet.pdf>
- Office for Civil Rights. (2020). Civil Rights and COVID 19 [Webinar]. U.S. Department of Education . <https://youtu.be/J8Ewp5ZKidE>
- Office for Civil Rights. (n.d.). Office for Civil Rights Recent Resolution Search. U.S. Department of Education.  
[https://ocrcas.ed.gov/ocr-search?f%5B0%5D=it%3APost%20Secondary&f%5B1%5D=state\\_fullname%3A637](https://ocrcas.ed.gov/ocr-search?f%5B0%5D=it%3APost%20Secondary&f%5B1%5D=state_fullname%3A637)
- Rosen, H., & Grogg, J. (2019). Lyrasis 2019 accessibility survey report: Understanding the landscape of library accessibility for online materials. LYRASIS.  
<https://www.lyrasis.org/programs/Documents/LYRASIS%202019%20Accessibility%20Survey%20Report.pdf#search=LYRASIS%202019%20Accessibility%20Report%20Now%20Available>
- U.S. Dept of Health and Human Services (n.d.). Usability.gov. <http://www.usability.gov>
- U.S. General Services Administration. (n.d.). Section508.gov. <https://www.section508.gov/>
- World Wide Web Consortium. (2020, September). *Web content accessibility guidelines (WCAG) overview*.  
<https://www.w3.org/WAI/standards-guidelines/wcag/>

# SOFTWARE USED

Adobe Acrobat Pro DC [Computer software]. (2020). Adobe.

<https://www.adobe.com/>

AMP [Computer software]. (2020). Level Access.

<https://www.levelaccess.com/>

Microsoft Excel for Office 365 [Computer software]. (2020). Microsoft.

<https://www.office.com/>

Microsoft Outlook for Office 365 [Computer software]. (2020). Microsoft.

<https://www.office.com/>

Microsoft Word for Office 365 [Computer software]. (2020). Microsoft.

<https://www.office.com/>

NVDA [Computer software]. (2020). NV Access. <https://www.nvaccess.org/>

Rumoroso, J. (2020). WCAG Color Contrast Checker [Computer software]. Jorge Rumoroso.

<https://chrome.google.com/webstore/detail/wcag-color-contrast-check/plnahcmalebfffmaghcpcmpaciebdhgdf>

WAVE Web Accessibility Evaluation Tool [Computer software]. (2020). WebAIM.

<https://wave.webaim.org/>