Accessibility

Accessibility testing

1. Deque Systems, 2021a
2. Abou-Zahra et al., 2017
3. Sane, 2021
4. Thornton et al., 2022
5. Rybin Koob et al., 2022
6. Ismailova and Inal, 2022
7. Campoverde-Molina et al., 2021
8. S. Kumar et al., 2020
9. S. (1.) Kumar et al., 2021
10. Seetha and Ayyadurai, 2022

Theme list

- a11y testing methods
- auto-test tools compared
- measuring a11y

Deque Systems, 2021b

The 57% coverage of axe-core tools explained. In short they looked at what issues are detected on different (big data set) sites and calculated coverage of each site based on the amount of issues found not on how many of WCAG violations are found. This means that is color contrast issue is reported on more than one instance it will be counted more than once.

Tse et al., 2020

Linkedin's approach to automated accessibility testing. The run their tests in CI and use axe core.

Duran, 2017

Ten automated accessibility tools compared by testing them on the least accessible site. Might be a bit outdated, because this was done in 2017.

WebAIM, 2022

Overview of the web's accessibility. Overview of the most popular sites and a lot of number on how many issues are found, and what is the general state of accessibility in the web. Three years of data compared.

Vigo et al., 2013

What could be the harm in relying on automated testing? This research look at number of available automated evaluation tools and compares their output to that of a team of experts in regard to the coverage, completeness and correctness. Results show that relying on tools alone is not recommended, because even if the right tool is used only 6 out of 10 violations would be caught. Tools seem to be more effective on very inaccessible sites.

****TODO:** Take a look at some concrete numbers

References

Abou-Zahra, S., Steenhout, N., & Keen, L. (Eds.). (2017). *Selecting Web Accessibility Evaluation Tools*. Web Accessibility Initiative (WAI). https://doi.org/10.1145/1061811.1061830

Campoverde-Molina, M., Lujan-Mora, S., & Valverde, L. (2021). Process model for continuous testing of web accessibility. *IEEE Access, Access, IEEE*, *9*, 139576–139593. http://ezproxy.tlu.ee/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edseee&AN=edseee.9551272&site=eds-live

Deque Systems. (2021a). *Developing axe-core rules* [original-date: 2015-06-10T15:26:45Z]. Retrieved 02/18/2023, from https://github.com/dequelabs/axe-core/blob/develop/doc/rule-development.md

Deque Systems. (2021b). *The automated accessibility coverage report: Why we need to change how we viewaccessibility testing coverage.* (research rep.). Deque Systems. https://accessibility.deque.com/hubfs/Accessibility-Coverage-Report.pdf

Duran, M. (2017). *What we found when we tested tools on the world's least-accessible webpage - Accessibility in government*. Retrieved 03/18/2023, from https://accessibility.blog.gov.uk/2017/02/24/what-we-found-when-we-tested-tools-on-the-worlds-least-accessible-webpage/

Ismailova, R., & Inal, Y. (2022). Comparison of Online Accessibility Evaluation Tools: An Analysis of Tool Effectiveness. *IEEE Access, Access, IEEE*, *10*, 58233–58239. https://doi.org/10.1109/ACCESS.2022.3179375

Kumar, S. (1.), Biswas, P. (1.), & Shree Dv, J. (2.) (2021). Comparing ten wcag tools for accessibility evaluation of websites. *Technology and Disability*, *33*(3), 163-185 –185. http://ezproxy.tlu.ee/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edselc&AN=edselc.2-52.0-85113988259&site=eds-live

Kumar, S., DV, J., & Biswas, P. (2020). Accessibility evaluation of websites using wcag tools and cambridge simulator. http://ezproxy.tlu.ee/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edsarx&AN=edsarx.2009.06526&site=eds-live

Rybin Koob, A., Ibacache Oliva, K. S., Williamson, M., Lamont-Manfre, M., Hugen, A., & Dickerson, A. (2022). Tech Tools in Pandemic-Transformed Information Literacy Instruction: Pushing for Digital Accessibility. *Information Technology & Libraries*, *41*(4), 1–32. https://doi.org/10.6017/ital.v41i4.15383

Sane, P. (2021). A brief survey of current software engineering practices in continuous integration and automated accessibility testing. *2021 Sixth International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET)*. https://doi.org/10.1109/wispnet51692.2021.9419464

Seetha, J. (1.), & Ayyadurai, M. (2.) (2022). Performance evaluation of accessibility checker tool for educational websites. *Concurrency and Computation: Practice and Experience*, *34*(24). http://ezproxy.tlu.ee/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edselc&AN=edselc.2-52.0-85135050528&site=eds-live

Thornton, M., Mushtare, R., Rescigno, F., & Brightman, K. (2022). Accessibility of the Affordable Care Act (ACA) marketplace websites. *Journal of Communication in Healthcare*, *15*(4), 316–323. https://doi.org/10.1080/17538068.2022.2046899

Tse, O., Lee, A., Sumner, M., & Iwashima, R. (2020). *LinkedIn's approach to automated accessibility (A11y) testing*. Retrieved 03/18/2023, from https://engineering.linkedin.com/blog/2020/automated-accessibility-testing

Vigo, M., Brown, J., & Conway, V. (2013). Benchmarking web accessibility evaluation tools. *Proceedings of the 10th International Cross-Disciplinary Conference on Web Accessibility*. https://doi.org/10.1145/2461121.2461124

WebAIM. (2022). *The webaim million: The 2022 report on the accessibility of the top 1,000,000 home pages*. Institute for Disability Research, Policy, and Practice. Retrieved 03/18/2023, from https://webaim.org/projects/million/