

Accessibility in Journals

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Communication Design Quarterly's whitepapers are researched and written by *CDQ's* Editorial Assistants, Research Assistants, and Interns in partial fulfillment of their duties to the journal. These whitepapers are not formally peer-reviewed publications, but are intended to provide a service to practitioners and academics alike by providing information and resources on, broadly, writing, editing, and publishing-related topics.

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OVERVIEW

Included in this white paper is a collection of information and resources that could be helpful in the pursuit of a more accessible web, especially among journals. This white paper is intended to be a starting place for better journal and site accessibility. This white paper uses the National Center for Biotechnology Information's **guidelines** when referring to individual's accessibility needs and for certain language choices. Overall, this white paper explores challenges with accessibility, different strategies to overcoming some of those challenges, and resources that could be helpful in pursuing better accessibility in journals and websites.

INTRODUCTION: THE NEED FOR ACCESSIBILITY

Accessibility is commonly defined by two separate sources, both of which give direction in the field of accessibility. The Web Accessibility Initiative (WAI) states that "web accessibility means that people with disabilities can use the Web. More specifically, Web accessibility means that people with disabilities can perceive, understand, navigate, and interact with the Web, and that they can contribute to the Web" (WAI, 2005). Meanwhile, the Section 508 Amendment of the Rehabilitation Act in the USA says, "technology is accessible if it can be used as effectively by people with disabilities as those without" (as cited in Petrie, Savva, & Power, 2015, p. 1). Alternatively, there is a third definition composed by Helen Petrie, Andreas Savva, and Christopher Power in their article "Towards a Unified Definition of Web Accessibility" (2015) in which they create a more comprehensive definition:

All people, particularly disabled and older people, can use websites in a range of contexts of use, including mainstream and assistive technologies; to achieve this, websites need to be designed and developed to support usability across these contexts. (p. 3)

All three definitions are critical to understanding accessibility as it pertains to web usability. From these definitions there are several aspects that can be drawn to outline a general overview of accessibility. Accessibility should allow readers with disabilities to:

- Comprehend the Web
- Contribute to the Web
- Use the Web as effectively as those without disabilities

In order to accomplish this, as Petrie et al.'s definition emphasizes, websites should be designed in such a way that they enable an environment that includes not some readers, but all.

In the realm of technical communication, accessibility can sometimes fall to the wayside. While accessibility should be a priority in technical communication, it has not always been a standard practice yet. This paper endeavors to outline the problem (i.e., the lack of accessibility in technical communication journals) as well as solutions to that problem. Inclusivity is crucial in journal publications as it provides a platform for all readers. By offering helpful resources and suggestions to make a journal more accessible, it is hoped that accessibility will ultimately be more universal to editors, authors, and readers.

CDQ'S PURPOSE WITH THIS WHITE PAPER

Some services and technologies devoted to accessibility do so with a general lack of respect to persons with disabilities. The intent of *CDQ* through this white paper is to help others with their accessibility research.

CHALLENGES WITH ACCESSIBILITY

Before delving into the findings, it is important to note that there is not one perfect way to develop a journal's accessibility. While it is important to pursue the fundamentals of better accessibility, it is equally important to advocate accessibility through a clear and genuine desire to improve the field. Demonstrating to readers that their publication is dedicated to building a more inclusive environment through intentional and conscious action is critical, especially when it comes to overcoming the challenges lack of accessibility can present.

The purpose of this white paper is to provide a starting foundation for stronger accessibility. Though not fully comprehensive, we hope to provide resources that will help further accessibility initiatives. Ultimately, the most productive way to promote accessibility in a journal is to be open-minded, transparent, and educated in the field of accessibility. Hopefully, this white paper will be a step towards a more inclusive community that embraces challenges many readers face.

ACCESSIBILITY IN JOURNALS

Several criteria were used when researching journals and publications for accessibility. First, we looked for references to accessibility in the submission guidelines for journals. Unfortunately, because of a lack of access to some journals, it was difficult to search for accessibility statements. Still, every journal found had public submission guidelines, so those were the main criteria for journals. The publishers of some journals did have public accessibility statements which were also evaluated.

Of the twenty journals identified with a focus in professional communication of some variety, none referenced accessibility requirements in the submission guidelines for their authors (see Appendix A).

All these publications through which the journals were published as well as other publications with public accessibility statements were accumulated to ascertain how different publications practice accessibility standards (see Appendix B). While a few publications found made no mention of accessibility, the publications that did were, for the most part, thorough. The best utilization of accessibility included the simplest navigation. An open, public accessibility statement that can be accessed through a link at the bottom of the website leaves a good impression.

Most accessibility statements included a reference to the Web Content Accessibility Guidelines (WCAG) and Section 508 of the Rehabilitation Act. According to their website, the WCAG is a set of guidelines "with a goal of providing a single shared standard for web content accessibility that meets the needs of individuals, organizations, and governments internationally" (Henry, 2005). There are three different levels of accessibility that the WCAG outlines: Level A, Level AA, and Level AAA. Each successive level is more challenging to fulfill than the previous one. All publishers identified adhered to Levels A or AA. Meanwhile, Section 508 of the Rehabilitation Act contains "scoping and technical requirements for information and communication technology (ICT) to ensure accessibility and usability by individuals with disabilities" (Yanchulis, n.d.). Again, this is a comprehensive resource for accessibility, and for all "Federal agencies," compliance is mandatory (Yanchulis, n.d.).

Also, some publishers provide a **Voluntary Product Accessibility Template** (VPAT) in their accessibility statement. Essentially, a VPAT is a document that "explains how information and communication technology (ICT) products such as software, hardware, electronic content, and support documentation meet (conform to) the Revised 508 Standards for IT accessibility" (Section 508, 2018). This document illustrates exactly what areas of accessibility a website thrives in, as well as the areas in which a website's design is lacking. The VPAT is another way to establish transparency between websites and readers when it comes to accessibility initiatives.

JOURNAL ACCESSIBILITY STATEMENTS

A journal's accessibility statement should be public and easy to navigate to, with or without access to the journal. In other words, accessibility statements should be easily accessible. A reader should be able to determine how accessible a journal is for their personal needs before investing in access. For easy navigability, insert a link to the journal's personal accessibility statement at the bottom of the page (i.e., footer), like many publications.

Also, these accessibility statements should be thorough, effectively outlining what steps the journal has taken to ensure accuracy and effort in the accessibility prerogative. We recommend adhering to level AA of the WCAG 2.1. Most universities and businesses are following level AA because (a) it has stronger impact on design in terms of color contrast, and (b) it gives more legal coverage than level A.

Finally, be open about accessibility. Provide an outlet for readers to offer suggestions and critiques; because understanding the challenges of readers will ultimately grow a journal's accessibility and inclusivity.

ACCESSIBILITY IN STYLE GUIDES

All articles submitted to a journal are organized by a style guide specified by the journal. In many academic journals, especially in the field of technical communication, APA is the preferred style, but there are several other styles that are also favored by journals. Some of these styles, such as APA, recommends using plain language to address accessibility needs. The plain language guidelines includes defining unfamiliar technical terms, writing full name before using its abbreviation, using familiar words over obscure ones, using descriptive adjectives, avoiding rhyming schemes, including abstracts for articles written for the public at a lower secondary education level and more. For more information on plain language, see, for example, the [Center for Plain Language](#) or [Plainlanguage.gov](#).

While most style guides address accessibility in some way, they are not consistent in the way they do so. The following list includes some of the established styles and provides their references to accessibility.

American Psychological Association (APA)

The APA style includes an accessibility statement that iterates their aspirations to conform to Level AA of the WCAG. In their statement, they outline exact steps they have taken thus far.

<https://www.apa.org/about/accessibility>

Associated Press Stylebook (AP)

Although we could not find an accessibility statement, the AP style does provide a public VPAT, which outlines their progress.

<https://legacy.apstylebook.com/APSTYLEBOOK.VPAT.pdf>

The Chicago Manual of Style (CMOS)

As of the publication of this white paper, there was no easily accessible accessibility statement; but CMOS does include notes on accessibility in tables, illustrations, and captions (3.88 and 3.28).

<https://www.chicagomanualofstyle.org/search.html?clause=accessibility>

Modern Language Association (MLA)

MLA style includes a short blurb saying web resources ought to comply with Title II of the American with Disabilities Act and Section 508 of the US Rehabilitation Act.

<https://www.mla.org/About-Us/Governance/Committees/Committee-Listings/Professional-Issues/Committee-on-Information-Technology/Guidelines-for-Authors-of-Digital-Resources>

ACCESSIBILITY SERVICES AND TECHNOLOGIES

Thankfully, the internet is rich in resources to help ease the assimilation of accessibility. For websites, there are many different options for accessibility programs that can be run, including accessiBe, AudioEye, Deque, and Level Access. It is worth mentioning that AudioEye also offers an Ally Toolbar, which is included in the annual fee to use AudioEye. While it is an excellent resource that readers would have, it is costly for the publisher, so it might not be the most attainable option.

Adobe provides authors with the opportunity to verify PDF accessibility with an accessibility checker for Acrobat X Pro.

Although many journals have been very slow to address PDF accessibility, reducing it to optical character recognition (OCR), there are helpful resources for authors who may not be as informed about accessibility standards. Also, do not hesitate to use resources from university websites—often, their resources are up-to-date and are not just helpful to students, but also to professional writers and editors. For example, Ontario Tech University provides a helpful tutorial for how to use the accessibility checker for Microsoft Word.

Also, it could be beneficial to seek out experts in accessibility. A second opinion from a specialist in accessibility could provide a fresh perspective. For instance, **Dr. Jim Thatcher** (PhD University of Michigan, 1963) had dedicated several years to accessibility in websites. On his own website, he did provide several resources and helpful tips that go into more detail about different facets of accessibility. Jim Thatcher was one of many accessibility experts, and it would be worthwhile to research the various experts in this field.

Paid Services and Technologies

Included here are several resources that could be useful in implementing accessibility. Please note that *Communication Design Quarterly* does not specifically endorse any of these programs. Links and brief descriptions here are provided simply to offer a list of potential accessibility resources. Links were tested valid at the time of publication. This list is designed to serve as a starting point for your work with accessibility. Many other such lists exist as well, such as University of Washington's **Accessible Technology** page.

accessiBe

accessiBe is a paid service designed to monitor site pages and provide accessibility support.

<https://accessibe.com/>

AudioEye

AudioEye is a paid accessibility report service that scans site pages to give an overview of accessibility issues against ADA and WCAG standards, which also provides an "Ally Toolbar" for assistance.

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

Deque

Deque is a paid service that offers audits and strategies for better website accessibility as well as training tools to educate your team on accessibility standards.

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

Level Access

Level Access is a paid service that adheres websites to Section 508, ADA, and WCAG standards, and it also provides training tools to better enhance your understanding of accessibility.

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

WebAIM

WebAIM is another service that provides training, consulting, evaluation, and certification.

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

Instructions on using Acrobat X Pro Accessibility Checker

This explains how to utilize the Acrobat X Pro Accessibility Checker on PDF documents. It is not a fully comprehensive accessibility checker, but it covers certain areas (outlined in the document).

<https://www.adobe.com/content/dam/acom/en/accessibility/products/acrobat/pdfs/acrobat-x-accessibility-checker.pdf>

Complimentary Services and Technologies

Most journals ask authors to submit their manuscripts in Word format and use a house template to create PDFs from the Word submissions. Therefore, Word documents need to be written with access in mind (use of styles, descriptive alt text, tables as marked-up text, automated lists, tagged headings, etc.) so that the creation of an accessible PDF from that document becomes easier.

Listed below are several complimentary resources that could be beneficial for authors, editors, and readers to create more accessible documents. Links were tested valid at the time of publication.

Office Accessibility

Instructions on using Microsoft Word Accessibility Checker

Ontario Tech University provides several videos detailing how to check for accessibility in Microsoft Word.

<https://accessibility.ontariotechu.ca/tutorials/>

PDF Accessibility

Acrobat Reader

Acrobat Reader provides the ability to view, comment, print, and sign PDFs that can be helpful especially for editors.

<https://get.adobe.com/reader/>

Instructions on creating and verifying PDF accessibility (Acrobat Pro)

Adobe's accessibility guide explains how to use Acrobat Pro to check and monitor for accessibility in PDF documents.

<https://helpx.adobe.com/acrobat/using/create-verify-pdf-accessibility.html>

Accessibility Statements

Template for accessibility statements

The National Disability Authority (NDA) provides a template for designing accessibility statements. At the bottom of the page, there are several more resources that could also be beneficial under the Resources tab.

<http://nda.ie/Resources/Accessibility-toolkit/Accessibility-Statement-Template/>

Accessibility Design

Web accessibility

While WebAIM have some paid services, it also offers some free and comprehensive tools, such as WAVE that gives detailed feedback and helps making the web content more accessible.

<https://wave.webaim.org>

WebAIM also offers a freely accessible contrast checker that tests how well a website's color contrast ratios abide by WCAG's guidelines and provides a checker for levels AA and AAA.

<https://webaim.org/resources/contrastchecker/>

WebAIM is a substantial resource for many other aspects of web accessibility as well.

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

ACADEMIC ACCESSIBILITY RESEARCH

The following list offers a partial list of references for those conducting their own accessibility research. Papers range from accessibility in education to usability and web design and are offered here as a starting point only.

Education

Buehler, E., Easley, W., Poole, A., & Hurst, A. (2016). Accessibility barriers to online education for young adults with intellectual disabilities. *Proceedings of the 13th Web for All Conference on W4A 16*, 1–10. <https://doi.org/10.1145/2899475.2899481>

Meloncon, L. (2018). Orienting access in our business and professional communication classrooms. *Business and Professional Communication Quarterly*, 81(1), 34–51. <https://doi.org/10.1177/2329490617739885>

Moeller, M., & Jung, J. (2014). Sites of normalcy: Understanding online education as prosthetic technology. *Disability Studies Quarterly*, 34(4). <https://doi.org/10.18061/dsq.v34i4.4020>

Design

Kim, L., & Lane, L. (2019). Dynamic design for technical communication. *Proceedings of the 37th ACM International Conference on the Design of Communication* (pp. 1–7). Portland, OR: SIGDOC '19. <https://doi.org/10.1145/3328020.3353929>

Lukman, A. L., Bridge, C., Dain, S. J., & Boon, M.-Y. (2019). Luminance contrast of accessible tactile indicators for people with visual impairment. *Ergonomics in Design: The Quarterly of Human Factors Applications*, 28(2), 4–15. <https://doi.org/10.1177/1064804619841841>

Oswal, S. K. (2014). Participatory design: Barriers and possibilities. *Communication Design Quarterly Review*, 2(3), 14–19. <https://doi.org/10.1145/2644448.2644452>

Oswal, S. K., & Meloncon, L. (2017). Saying no to the checklist: Shifting from an ideology of normalcy to an ideology of inclusion in online writing instruction. *Journal of the Council of Writing Program Administrators*, 40(3), 61–77.

Reynolds-Dyk, A. (2014). Design meets Disability Rhetorical AccessAbility. *Technical Communication Quarterly*, 23(2), 160–164. <https://doi.org/10.1080/10572252.2014.879823>

Zdenek, S. (2018). Designing captions: Disruptive experiments with typography, color, icons, and effects. *Kairos: A Journal of Rhetoric, technology, and Pedagogy*, 23(1). Retrieved from <http://kairos.technorhetoric.net/23.1/topoi/zdenek/>.

Journals

Andersen, R., & Hackos, J. (2018). Increasing the value and accessibility of academic research. *Proceedings of the 36th ACM International Conference on the Design of Communication* (pp. 1–10). Milwaukee, WI: SIGDOC '18. <https://doi.org/10.1145/3233756.3233959>

Coonin, B. (2002). Establishing accessibility for e-journals: a suggested approach. *Library Hi Tech*, 20(2), 207–220. <https://doi.org/10.1108/07378830210432570>

Hennes, J. (2013). Review of the Book Rhetorical accessibility: At the intersection of technical communication and disability studies, edited by Lisa Meloncon. *Communication Design Quarterly Review*, 2(1), 61–66. <https://doi.org/10.1145/2559866.2559872>

Oswal, S. K. (2013). Exploring accessibility as a potential area of research for technical communication. *Communication Design Quarterly Review*, 1(4), 50–60. <https://doi.org/10.1145/2524248.2524261>

Remael, A., Reviere, N., & Vandekerckhove, R. (2018). From translation studies and audiovisual translation to media accessibility: Some research trends. *Benjamins Current Topics Audiovisual Translation*, 65–78. <https://doi.org/10.1075/bct.95.06rem>

Wee, B. V. (2016). Accessible accessibility research challenges. *Journal of Transport Geography*, 51, 9–16. <https://doi.org/10.1016/j.jtrangeo.2015.10.018>

General

Jaeger, P. T. (2015). Disability, human rights, and social justice: The ongoing struggle for online accessibility and equality. *First Monday*, 20(9). <https://doi.org/10.5210/fm.v20i9.6164>

Kulkarni, M. (2019). Digital accessibility: Challenges and opportunities. *IIMB Management Review*, 31(1), 91–98. <https://doi.org/10.1016/j.iimb.2018.05.009>

Oswal, S. K. (2015). A conversation on usability and accessibility with Janice (Ginny) Redish. *Communication Design Quarterly Review*, 3(2), 63–92. <https://doi.org/10.1145/2752853.2752861>

Rios, D., Magasi, S., Novak, C., & Harniss, M. (2016). Conducting accessible research: Including people with disabilities in public health, epidemiological, and outcomes studies. *American Journal of Public Health*, 106(12), 2137–2144. <https://doi.org/10.2105/ajph.2016.303448>

Yang, Y. T., & Chen, B. (2015). Web accessibility for older adults: A comparative analysis of disability laws. *The Gerontologist*, 55(5), 854–864. <https://doi.org/10.1093/geront/gnv057>

Zdenek, S. (2019). Guest editor's introduction: Reimagining disability and accessibility in technical and Professional communication. *Communication Design Quarterly Review*, 6(4), 4–11. <https://doi.org/10.1145/3309589.3309590>

CONCLUSION

While web accessibility is an ever-developing field, there are many small changes that journals can make now to ensure an inclusive experience for readers. Being open about accessibility through accessibility statements, a section for suggestions, and adherence to web guidelines like the WCAG are all excellent ways to illustrate a commitment to a more inclusive environment. Also, paying close attention to current research in accessibility, which is a constantly adapting field, is critical to understanding what steps to take and how to sculpt a journal or website that prioritizes accessibility for readers.

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Petrie, H., Savva, A., & Power, C. (2015). Towards a unified definition of web accessibility. *Proceedings of the 12th Web for All Conference* (pp. 1-13). Florence, Italy: W4A '15. <https://doi.org/10.1145/2745555.2746653>

Thatcher, J. (n.d.). Accessibility Consulting. Retrieved from <https://jimthatcher.com/index.htm>.

Voluntary Product Accessibility Template (VPAT). (n.d.). Retrieved from <https://www.section508.gov/sell/vpat>.

Yanchulis, D. (n.d.). Home. Retrieved from <https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines>.

APPENDIX A

	Accessibility guidelines in submissions	Style
Association of Departments of English (ADE)	No	MLA
Business and Professional Communication Quarterly (BPCQ)	No	APA
communication+1	No	CMOS
Communication Quarterly	No	Taylor & Francis
International Journal of American Linguistics	No	IJAL
International Journal of Business Communication	No	APA
International Journal of Communication	No	APA
Journal of Advanced Composition (JAC Online)	No	MLA
Journal of Basic Writing	No	MLA
Journal of Business and Technical Communication (JBTC)	No	APA
Journal of Communication	No	APA
Journal of Communications	No	JOCM
Journal of Professional Communication (JPC)	No	APA
Journal of Technical Writing and Communication	No	APA
Journalism & Mass Communication Quarterly	No	APA
Southern Communication Journal	No	APA
Technical Communication Online: Journal of the Society for Technical Communication	No	APA
Technical Communication Quarterly	No	Taylor & Francis
Written Communication	Yes	APA

APPENDIX B

	WCAG Level	Section 508	VPAT	Design: Accessibility link at bottom of page	# of journals this publisher includes from Appendix A
Association for Computing Machinery	A	Yes	None found	No	0
ATAC	None found	None found	None found	No	1
Elsevier	A	Yes	None found	No	0
IEEE	A	None found	None found	Yes	0
Modern Language Association of America	None found	Yes	None found	No	1
Open Journal Systems, Public Knowledge Project	None found	None found	None found	No	1
Pearson	AA	Yes	No	Yes	0
Project Muse	AA	Yes	Yes	Yes	0
SAGE Journals	Email for more info	Email for more info	None found	No	6
Society for Technical Communication	None found	None found	None found	No	1
Southern States Communication Association	None found	None found	None found	No	1
Taylor & Francis Online	A	Yes	Yes, but form is blank	Yes	2
University of Chicago Press Journals	None found	None found	None found	No	1
University of Massachusetts Amherst	Maybe A + AA	Yes	Yes	Yes	1
USC Annenberg Press	None found	None found	None found	No	1
WAC Clearinghouse	None found	None found	None found	No	1
Wiley Online Library	AA	Yes	None found	Yes	1