

Getting to Know Your Accessibility Checker

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What this is

The Innovative Instructor is an article series (<https://cer.jhu.edu/ii>) and a blog (<https://ii.library.jhu.edu>) related to teaching excellence at Johns Hopkins

Article categories

Best Practice

How to use technologies and apply innovative instructional methods

Pedagogy

Hopkins professors share successful strategies for teaching excellence

Technology

Information about emerging technologies, who is using them, and why you should know

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About the CER

The Center for Educational Resources partners with faculty, postdocs, and graduate students to extend instructional impact by connecting innovative teaching strategies and instructional technologies

What it is

Accessibility is an approach to online content and our learning environments that provides equitable opportunity and ease of use for everyone, regardless of limitation or disability. An accessible experience or resource is free from barriers, enabling the user to focus on what is being communicated in the material's content. Guidelines for building accessibility into materials presented online have been published for Johns Hopkins University staff and instructors based on the Worldwide Web Consortium's WCAG 2.0 AA. In practical terms, these guidelines inform a set of accessibility best practices for instructional materials that should be integrated into our learning environments and experiences to foster flexibility and success for all students. Fortunately, when creating documents and files, most applications offer Accessibility Checkers, which provide guidance for the creation process.



to work toward a new default, alongside updating existing materials to meet WCAG guidelines, in which we'll ask, "does my material create any barriers?" as we are developing resources and experiences rather than after their creation is complete.

How to use it

While there are many resources that describe best practices toward the accessibility of a file, the **Accessibility Checker** is a built-in, catch-all tool available in most document creation programs. It provides analysis of accessibility issues in your file with guidance for how to resolve them. It can also teach instructors which file elements are relevant and how to understand their functions toward building an accessible resource. Cultivating the habit of running the Accessibility Checker in every file you create or share is a great place to begin.

Why does it matter

Accessibility is a social framework, based in awareness of the experience for individuals with disability or other limitations, and a creative design process that makes use of tools in software and websites to build content that is compatible with assistive technologies and the range of current and future users. While the phrases "build content" and "design process" may not sound so relevant to an instructor, the mere act of presenting information to an audience demands adequate usability and design. An effort toward accessibility befalls any creator of materials intended for communication and circulation. For an institution in service of expert learning, accessibility should be a core commitment that models the practical inclusion of all its members, enabling instructors to reach and engage people with varied abilities and circumstances. Many existing or default media include barriers to user access. So, accessibility invites us

I. When to use it

Accessed via the "Review" tab in the ribbon at the top of your document, under which you can select "Check Accessibility," Microsoft's Accessibility Checker can be utilized at any time during or at the conclusion of document creation. You can also opt to check the box once in the Accessibility Checker pane that reads, "Keep accessibility checker running while I work," which then actively flags issues in the status bar as you work.

II. Understanding the results

Initiating the accessibility check will generate a list of issues under the heading "Inspection Results" that group any findings into three categories, based on compliance with accessibility rules that your document is compared against: errors, warnings and tips. These categories indicate the severity of an accessibility issue. Each listed issue also includes recommended actions for its resolution. You can find out more information by

selecting “Learn more” on a Windows PC or reviewing the “Why Fix?” section on a Mac.

ERRORS

An issue in your document is labeled an Error if your file’s content makes it impossible for a user with limitations or disability to use. Therefore, you can treat these recommendations from the Accessibility Checker as core elements for your document’s accessibility. These elements include:

Providing alt-text: in all file formats, any image or other non-text element that isn’t purely decorative should be accompanied by succinct alternative text that conveys the purpose or significance of the non-text element in context with the rest of the document. This textual description is different from and additional to an image caption. Screen readers will speak the alternative text for each image and thus make its information available to users. Instructors can ensure the continuity of instructional content for all students by composing alt-text via the Accessibility Checker.

If using tables, including table headings: in all file formats, tables introduce additional complexity as an element of your document. Accessibility asks that you set up your table via a few rules that will render your table legible in the correct reading order to assistive technologies. The most important of these is the table heading, also called the “Header

Row.” With this in place, the user will be able to navigate your table’s contents as well.

Unrestricted document access: in all file formats, there is an option to restrict your document’s permissions, such as limiting editing, copying or printing to protect intellectual property. Such restrictions may prevent screen readers from accessing the material, so instructors must disable any restrictive document protection before sharing with students.

WARNINGS

A Warning from the Accessibility Checker indicates an issue in your document that would create difficulty for users in most but not necessarily in all cases. The elements in this layer of accessibility account for ease of understanding, perception and navigation. Examples include:

In Word, Excel, and PowerPoint:

- Utilizing high color contrast between text and background, to ensure the visibility of your content for users with vision impairment.
- Structuring tables with consistent cells and no split, merged or nesting cells to enable user navigation via keyboard shortcuts and assistive technologies.

In PowerPoint:

- Including closed captions for embedded audio and video in your slides, without which the information will be completely lost to some users.

- Setting up the reading order of your slides via the Accessibility Checker, which will flag a slide if it does not detect a logical order for its objects.

TIPS

Tips suggest improvements to the presentation or organization of your file’s content that will enhance the user’s navigation experience. Instructors can use these to deepen their application of accessibility principles while also engaging additional built-in navigation tools in the software. Examples include:

In a Word document:

- Providing greater context for information in your document using heading “Styles” (Heading 1, Heading 2) on the “Home” tab or the Table of Contents feature under “References” to organize your document structure; and/or, using the “Layout” tab under “Table Tools” to set up the structure of any tables in a logical order.

In a PowerPoint presentation:

- Enhancing user navigation within a slide deck by providing unique titles on every slide and unique names for sections within a large presentation.

Other thoughts

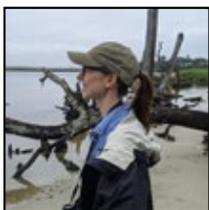
While an Accessibility Checker will not exhaust all there is to engage with in accessibility best practices, the highlights in this article offer a practical point of entry. Instructors can learn more in the context of your document creation process directly through the Checker while building the habit of running it. This article has focused on best practices in Microsoft’s relevant programs; however, the PDF is a very common file format for instructional materials and harbors its own accessibility check process in Adobe Acrobat Pro. There, you can use the “Make Accessible” action (under Tools > Action Wizard) to proceed through a comparable process of addressing any accessibility issues in your PDF. Additionally, setting up an accessible PDF is typically easiest via creating an accessible Word, Excel or PowerPoint file first, which will retain accessible elements when converted to a PDF. Finally, given the range of accessibility features that can exist across different file types, accessibility specialists recommend that you always distribute your instructional materials to students in multiple file formats.

Additional Resources

- JHU Guidelines on Accessibility: <https://accessibility.jhu.edu/electronic-information-technology/faqs-on-eit/>
- “Accessibility Guidelines for Course Materials”, from the CER: <https://cer.jhu.edu/teaching/accessibility-guidelines-for-course-materials>
- Microsoft’s Accessibility Checker overview: <https://support.microsoft.com/en-us/topic/improve-accessibility-with-the-accessibility-checker-a16f6de0-2f39-4a2b-8bd8-5ad801426c7f>
- Adobe Acrobat Pro’s overview of accessibility tools for PDFs: <https://helpx.adobe.com/acrobat/using/create-verify-pdf-accessibility.html>
- The JHSPH’s CTL blog posts on accessibility topics and strategies: <https://ctl.jhsph.edu/blog/category/#accessibility>

Author’s Background

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Sarah D’Adamo is a Baltimore-based educator, curriculum developer and researcher of higher education with diverse teaching experience in the communicative arts across educational levels and contexts. Her academic work critically examines the technologies and pedagogies of global education in the context of US and Canadian public higher education institutions and their social infrastructures. In addition to teaching and working to complete her PhD, Sarah has inhabited a service-oriented role as instructional staff in support of student success and pedagogical practice at the Johns Hopkins Carey Business School and Homewood’s Center for Educational Resources.