

Creating **Inclusive** Learning Materials



Thoughtful design isn't a choice—it's a necessity in the educational landscape.

Every instructional designer and faculty member bears the responsibility of ensuring that online courses cater to all types of learners, especially those relying on assistive technologies or navigating language barriers.

This guide is your go-to resource for best practices and key insights on creating an inclusive environment. Faculty and instructional designers can lean upon this guide to build accessible documents. Each recommendation has been vetted and curated by iDesign's Creative and Document Accessibility teams.

"Creating Inclusive Learning Materials" is an open educational resource (OER). All original materials are licensed as [**Creative Commons BY-NC-SA4.0**](#). You will find the license indicated in the footer of applicable downloadable materials. Citations and retrieval information are provided on curated materials.

Key Takeaways



1. Thoughtful design is a must-have.

Instructional designers and faculty should ensure their materials are accessible to learners, including those with disabilities. When you are designing or formatting with accessibility in mind, you are improving the experience for all and taking a human-centered approach, regardless of ability.



2. Prioritize document accessibility.

Given the increasing number of students with disabilities in education, designers should adopt accessible practices proactively.



3. Welcome continuous learning.

Accessibility and design integration is ongoing. The process does not end as best practices are informed by new studies.

Student Barriers to Accessibility

The importance of document accessibility cannot be overstated, especially considering the increasing number of students with disabilities enrolling in higher education. Data from the National Center for Educational Statistics reveals a significant rise, with over 19% of undergraduate students reporting one or more disabilities in 2016—a figure nearly double that of 2006. It's worth noting that only 20–40% of students with disabilities choose to disclose their condition, underscoring the importance of proactively ensuring accessibility.

As online learning continues to grow and expand, presenting content in a single format can pose challenges for students with varying language proficiencies, cognitive strategies, and cultural norms. Adopting accessible design practices to promote equitable access to educational materials should be the baseline. Rather than waiting for accommodation letters to be sent in at the start of the semester or school year, instructors must get ahead of the curve when preparing content. This will ensure that individual learners can fully engage and build knowledge and skills from day one. It also takes the burden off learners to self-report their learning disability since statistics show that not everyone chooses to disclose that fact publicly.



IN PRACTICE

Document Accessibility

An accessible template ensures that your documents are inclusive and usable by all learners.

Here are some steps to check for document accessibility in Word and/or PowerPoint templates:

1.

Run an Accessibility Checker:

Both Word and PowerPoint have built-in Accessibility Checkers that can identify issues in your documents. Run this tool to get an overview of any accessibility problems.

2.

Check Headings and Structure:

Ensure that your document has a clear hierarchy of headings. Use styles such as Heading 1, Heading 2, etc., rather than manually formatting text for headings. This helps screen readers and other assistive technologies navigate the document easily.

3.

Verify Alt Text for Images:

Images should include descriptive alt text to provide context for users who cannot see them. Check that all images in your template have appropriate alt text assigned to them.

4.

Review the Color Contrast:

Make sure that text and background colors have sufficient contrast to be readable for users. Use tools like the [Color Contrast Analyzer](#) to check the contrast ratio of your text.

5.

Test with Assistive Technologies:

Finally, test your template with screen readers and other assistive technologies to ensure compatibility and usability. This hands-on approach can uncover any additional accessibility issues that may not be caught by automated checkers alone.

Defining Thoughtful Design

Thoughtful design encompasses a multifaceted approach that prioritizes empathy, inclusivity, and usability. At its core, these three principles acknowledge the diverse perspectives of the audience, aiming to create solutions that resonate with everyone:

- **Empathy** forms the foundation, urging designers to understand the challenges and needs of end users.
- **Inclusivity** ensures that no one is left behind, regardless of their abilities, backgrounds, or circumstances.
- **Usability** ensures practicality, emphasizing intuitive interfaces and seamless, intuitive user interactions.

By adhering to accessibility standards, designers ensure that their documents are perceivable, operable, understandable, and robust. Accessibility aligns with the ethos of thoughtful design and amplifies its impact, making it truly inclusive and transformative.



IN PRACTICE

Thoughtful Design



Captioning videos aids individuals with hearing impairments while also benefiting non-native speakers. It can also help with those in noisy environments.



Providing alternative text for images benefits not only visually impaired users but also those with slow internet connections or those using text-only browsers.



Color should not be the only means for conveying information. People who are blind, colorblind, or have low vision miss out on the meaning conveyed by colors.

Best Practices and Tips

Start with Empathy

Understand the diverse needs and challenges of your audience to inform your design.



HOW TO IMPLEMENT

- Conduct interviews with individuals with disabilities to understand their experience with digital documents. For example, interview someone who uses a screen reader or is colorblind.
- Create personas representing different types of users with disabilities, such as a visually impaired student or a student with dyslexia. These personas can guide your design decisions.

Prioritize Universal Usability

Design with flexibility in mind, such as adjustable text sizes, color contrast options, and keyboard navigation support.

HOW TO IMPLEMENT

- Ensure color contrast throughout your document meets accessibility standards, such as WCAG guidelines. A few of the tools currently used at iDesign are [WebAIM](#), [Adobe Color](#), and [Color Safe](#).
- Design keyboard-friendly interfaces with logical tab order and keyboard shortcuts to facilitate navigation for users who cannot use a mouse. Test your document using keyboard navigation.



This contrast passes!



This contrast fails.

WCAG 2.0 level AA requires a contrast ratio of 4.5:1 for normal text and 3:1 for large text. The contrast ratio of the black text on the golden yellow background passes with a 10.35:1. The white text on the golden yellow background fails however, with a contrast ratio of 2.03:1.

Maintain Aesthetics Without Compromising Accessibility

Use creativity in color, typography, and layout while adhering to accessibility guidelines.

Most institutions required a AAA level of color contract compliance across 3 different areas (graphics, headings, and body text). We start there with all of our designs so they meet the highest standards.

HOW TO IMPLEMENT



- Choose color palettes that are both aesthetically pleasing and accessible to users with vision deficiencies.
- Select easy-to-read fonts. Consider using sans-serif fonts for better legibility, and avoid any decorative fonts.



Success! That was so great what you did back there.

Oh no! That was not so great what you did back there.



Success! That was so great what you did back there.

Oh no! That was not so great what you did back there.

Icons can aid in clarity, where color alone for a colorblind user would not be as effective.

Test and Iterate

Use a combination of automated tools and user testing to evaluate accessibility, and iterate based on feedback.



HOW TO IMPLEMENT

- Continuously iterate based on user feedback, making improvements to enhance usability and inclusivity.
- Collaborate with accessibility consultants who can provide in-depth evaluations of your document's accessibility compliance. Utilize their expertise to carry out recommended changes.

Tools to consider

While these are some widely used programs, they represent just a portion of the available resources for evaluating accessibility. There's a growing ecosystem of accessibility testing resources, each with its own strengths and specialties.

1

- **WAVE®:**

A web accessibility evaluation tool that evaluates content and provides visual feedback on potential problems. It's available as a browser extension and as a web-based tool.

2

- **Pa11y:**

This allows you to automate web accessibility testing. It provides detailed reports on issues.

3

- **Siteimprove:**

Offers a suite of tools for website optimization, including an Accessibility Checker.

4

- **Tenon:**

It uses manual and automated testing techniques to identify issues. Also, it offers integrations with various development environments and is typically used by development teams.

5

- **AXE®:**

This can be integrated into various development environments, including browsers, integrated development environments, and continuous integration and continuous delivery/deployment pipelines, to identify and remediate accessibility issues in applications.

Further Learning

- [A List Apart – Designing for Accessibility and Inclusion](#)

A List Apart offers articles that explore how to approach design from an inclusivity standpoint, suggesting that designing for accessibility leads to innovative and aesthetically pleasing designs.

- [Accessibility in Design - Designing for All](#)

This LinkedIn article discusses the importance of inclusive design and shares key considerations for accessibility.

- [Adobe's Guide to Accessible Design](#)

Adobe offers comprehensive guides on creating accessible documents with its software, including PDFs and digital content.

- [Fuzzy Math – Improve Accessibility for Users Who are Visually Impaired](#)

This article provides visual examples of what those who are visually impaired might be seeing when they look at a website.

- [Medium – UX Design and Accessibility](#)

Medium hosts a variety of articles written by UX designers and accessibility experts. These articles often cover how to create documents and digital products that are both user-friendly and visually appealing.

- [Microsoft Office Accessibility Center](#)

Microsoft provides tips for creating accessible documents using Office applications like Word, PowerPoint, and Excel.

- [NN/g Nielsen Norman Group](#)

NN/g provides articles and guidelines on how to design for accessibility without compromising on aesthetics.

- [Web Content Accessibility Guidelines \(WCAG\)](#)

Although primarily focused on web content, WCAG provides fundamental principles that apply to digital document design.

Accessibility: A Continuous Journey

Leveraging design principles to craft aesthetically pleasing documents does not preclude prioritizing accessibility. Thoughtful design inherently encompasses the creation of materials that are universally accessible, ensuring that all individuals can engage with content in meaningful and enriching ways. This integration of design and accessibility is not a one-time effort but an ongoing journey of learning and adaptation. As technology and understanding of accessibility evolve, so too must our approaches to thoughtful design. Instructional designers and faculty must stay informed, continuously update their skills, and embrace new tools and techniques to ensure that educational materials remain inclusive and accessible to all.

Here's how iDesign keeps up with accessibility:

iDesign is committed to maintaining high accessibility standards through continuous learning and professional development. Our Learning Technology team provides ongoing accessibility training to ensure our internal teams are well-versed in the latest standards and practices. This training covers a range of topics essential for staying current in the evolving field of accessibility.

Our team has also engaged in industry events like CreativePro's Design + Accessibility Summit. This annual event educates design professionals on creating accessible content with tools like InDesign, Acrobat, and PowerPoint. The focus is on crafting accessible documents and presentations that cater to all users, ensuring our designs are functional and inclusively accessible.

Learn by Design Talks:

A Model for Ongoing Innovation

iDesign's Creative Team hosts Learn by Design talks bi-weekly as a part of our approach to staying ahead in design and challenging our creative processes. These sessions offer a platform to explore new ideas, experiment with different approaches, and learn from one another. This practice is integral to our work culture, pushing the boundaries of design thinking.

Adopting a similar practice in your organization can foster a culture of innovation. By regularly engaging in discussions that challenge traditional thinking, you can inspire creativity and drive positive change. Consider implementing your own version of Learn by Design talks to encourage collaboration, inspire ideas, and enhance your team's capabilities.

Here's a list of some of our past topics to get started:

- Word & Powerpoint accessibility
- How to create a personal brand
- Let's Talk Design: an exploration into creative work, why we believe it is successful and if not, how we can improve it