# XYLEME®

# Accessibility Guide

## A BUSINESS IMPERATIVE FOR CONTENT TEAMS

Accessibility is a feature that is becoming increasingly important in the workplace. By definition, it means that whatever you create should be made in such a way that it can be used by everyone, regardless of how they encounter it. This is especially important when creating learning content because it ensures that all employees and customers are able to access the information, they need to do their job effectively—regardless of any physical or mental limitations they may have.

Content accessibility has become a business imperative, and content teams are at the forefront of the effort to support accessibility across the enterprise while striving as much as possible to meet Web Content Accessibility Guidelines (WCAG) standards.

This guide outlines some best practices to help you and your content teams provide accessible content.

## Design content for accessibility the first time

When it comes to designing content, you should always keep in mind that accessibility is key and should not be an afterthought.

It's much easier to design content for accessibility from the get-go than to retroactively try and make content accessible. Set users up for success by incorporating accessibility best practices up front when designing content. The goal is to make it easy for all users—including those with visual, auditory, speech, motor, or cognitive impairment—to navigate, consume, and understand your content. It is imperative to provide accessible content with clear accessibility instructions up front.

## Make content accessible to keyboards & screen readers

Screen readers are text-to-speech technology that improve accessibility for people with visual disabilities, such as blindness or low vision. They convert the text displayed on a computer screen into synthesized speech. Screen readers are a vital component of AI

assistants such as Apple's Siri and Amazon's Alexa, which "talk" with users by converting their replies into digital speech.

Visually impaired users often use screen reading tools such as VoiceOver, JAWS, or TalkBack to navigate content, particularly learning content, while others will rely on keyboards and keyboard alternatives.

People who cannot use a mouse and rely on the keyboard to interact with the Web need to be able to navigate links, forms, and media controls through the keyboard. When designing an accessible content experience, it must also be consumable to people who do not use a mouse or have mobility issues.

To ensure content is accessible to all users, all content and functionality such as links, forms, media controls, etc. are available through the keyboard alone. This will enable people with disabilities or mobility impairments to access your content without having to rely on assistive technologies or strategies which require a mouse by default (such as voice input).

## Use a consistent design & minimize distraction

Creating a consistent content experience improves accessibility by making it easier for users to navigate and ultimately understand your content. The best way to ensure that your content is accessible is by creating a consistent experience for users across all of your content types.

One way you can do this is by creating master templates for each different type of content you'll be presenting (PowerPoint slides, web pages, Word documents, videos, etc.) and then reusing those templates across all of your content. This will ensure that all users have an easier time navigating through and understanding your content, which will ultimately make it more accessible for everyone. One of the most important things you can do to create a good user experience is to keep your content layouts and designs simple. Avoid using animated objects as they can be distracting and use white space to keep designs free of clutter and easier to understand.

## Use clear & concise language

Plain language is a writing style that uses short, simple sentences, and simple words. It's easier to understand, and it's also easier to read. The [Plain Writing Act of 2010](#) defines plain language as: Writin*g that is clear, concise, well-organized, and follows other best practices appropriate to the subject or field and intended audience.*

Using plain language in your content makes it more accessible for people with disabilities. This includes anyone with a disability that effects their reading ability, their cognition, or their overall comprehension. Use clear, plain language and avoid idioms, complex metaphors, or region-specific terms that can be confusing or difficult to understand, particularly for non-native speakers. Industry-specific terms should be clearly defined so that the reader does not have to guess at their meaning.

## Use accessible fonts & colors

Use plain, sans serif fonts to improve readability, and avoid using all capital letters. Avoid overly bright colors and be sure to provide explanatory text when using color for emphasis for screen readers and visually impaired users.

Additionally, using a contrast ratio of 4:5:1 or higher for on-screen text helps improve accessibility for visually impaired users. When overlaying text on a background image, don't forget to reduce the image brightness and contrast so the text is easier to read.

There are several web-based contrast checkers out there, [such as this one](#), that evaluates color combinations using the WCAG 2.0 guidelines for contrast accessibility.

### Color Contrast: Don't Rely on Color Alone to Convey Meaning

Colors can provide a variety of important visual cues in educational content, but they can also be confusing for learners who are color blind.

Using the color green to indicate a correct response and the color red to indicate an incorrect response isn't enough to satisfy all learners. One way to avoid confusion for color blind users is to include audio or on-screen text in addition to the color cues. To address this issue, include audio or on-screen text that describes what the colors mean. For example, say: "Green means correct." Or say: "Red means incorrect."
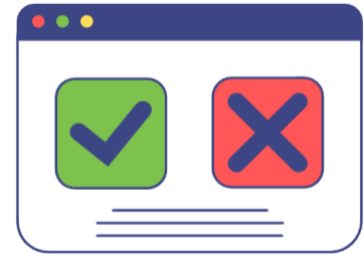
## Use headings to communicate content & structure

Avoid using headings as purely stylistic elements—instead, use them to segment content into logical groups and sections. Think of your webpage as an outline. Your page title or <h1> tag should be the theme of your page. Subheadings, like <h2> and <h3>, are used to deliver your message.

## Use relevant, descriptive hyperlinks

Text links should be informative and relevant to the link in question. Avoid linking generic text, such as "click here," and instead link descriptive text, such as "Learn more about [topic]," "Visit the product website" or "Read our privacy policy."

## Use lists to break up long content

Avoid long, complex paragraphs and instead use lists where appropriate to segment information. This will provide help your intended audience digest your content while making it skimmable in the process.

## Make audio & video content accessible too

### Provide a text-based alternatives

Text-based alternatives are imperative in providing essential context for learners with visual impairments. Using alternative (alt) text to describe images allows the user to hover over an image to provide additional text-based context and provides
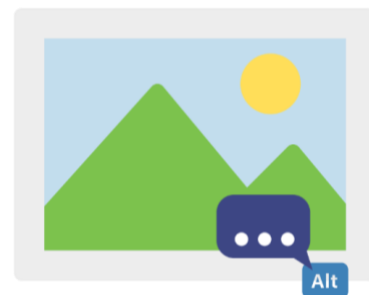
meaning to learners using assistive technologies, such as screen readers.

It is important not to overuse alt text — only adding it to objects that convey context and meaning. If decorative images are present that do not add any purpose to the content, a good practice is to hide those to not fatigue screen readers.

When using an alt tag, describe the same content and relevant information presented by the image or object.

Avoid the following:

- ✖ Add additional information that is not concise or relevant
- ✖ Include any on-screen text
- ✖ Incorporate the image name or file extension
- ✖ Use abbreviations or punctuation that is unnecessary, such as *** where screen readers will read it out loud and will not add any value

## Avoid flashing content

For those with cases of photosensitive epilepsy, flashing content can trigger seizures. According to WCAG standards, it's best to avoid adding any images or videos that flash, flicker or blink more than three times per second.

## Do not use the auto play feature

People using screen readers navigate by listening, so do not enable allow audio or video content to start playing automatically.
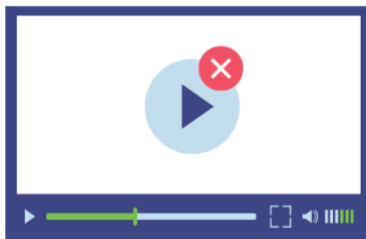
For people with certain disabilities, the use of screen readers provides navigation capabilities through listening. Using an auto play functionality for audio or video can make a content unusable. With auto play, audio starts playing immediately which can obscure screen readers, preventing a person who is blind from hearing the screen reader prior to stopping the noise. Auto playing media can also create confusion or a distraction for those with cognitive disabilities or can even trigger seizures or other types of physical reactions. It is important to let your learners control playback functionality for the best learning experience.

## Provide a transcript & closed captioning

Many people confuse transcripts with captions. Transcripts (also referred to as ASR or automatic speech recognition) like closed captioning, provide the text of what is being spoken on the screen. Although transcripts and closed captioning are both designed to allow viewers to hear and read the spoken words, closed captions are time-coded frames that divide text into smaller chunks that correspond to a specific location of the video.

In contrast, transcripts show the entirety of the transcription and are also searchable within the player which allow users to jump to a particular location in the transcript.

There are two types of transcripts that can be used to make your content accessible.

- **Basic transcripts** are a text-based version of the audio information needed to understand the content.
- **Descriptive transcripts** are also text-based, but also include text descriptions of the visual information needed to understand video content. This can include descriptions of sounds and key information that is going on to give proper context.

Both forms of transcripts are important, but only descriptive transcripts provide the level of detail required to meet a wide range of user needs, such as those who are deaf or blind.

# Don't overlook accessible best practices for quizzes

## Avoid setting time limits

By default, quizzes and interactions should be designed to be as self-paced as possible. Quizzes and interactions that use timers can be extremely stressful for students with disabilities, who may need more time to complete the quiz or interaction.

If a timer is required, then it should include a session timeout feature that gives users extra time at the end of each session so they can finish up if they run out of time.

## Provide extra context

For screen reader users, it is important to let users know that multiple answers are possible when a quiz question accepts more than one answer choice. When a quiz question accepts more than one answer choice, include directions for screen reader users, such as: "select all that apply."

It is important to note that accessibility starts with the author. An author must make design choices with their content. Although technology is constantly evolving and there are more and more options for creating accessible content, technology can only take you so far. If a certain interaction is developed for the best learning experience, such as a bin drop for example, but the functionality doesn't meet accessibility requirements, an author will have to make a business choice about how to present that content in a way that will work for the intended audience.

We hope you found this guide helpful in providing best practices to make your content accessible, ensuring that all learners, regardless of their abilities or disabilities, can access and benefit from it.

## Helpful Resources

- Quick reference on how to meet Web Content Accessibility Guidelines (WCAG)
- World Wide Web Consortium (WC3) website on accessibility standards and strategies
- Accessibility training, tools, and community support pages from WebAim

Schedule a free consultation to explore how Xyleme's award-winning CCMS helps global brands create and maintain accessible content while streamlining their enterprise content strategies to drive up to 4X higher content engagement, reduce content development time by 50%, and cut content maintenance time by 60% or more.

**Schedule a free consultation**

About Xyleme

Xyleme's Component Content Management System (CCMS)—sometimes called a Learning Content Management System (LCMS)—powers the digital transformation of complex content authoring, management, and syndication, enabling the delivery of personalized digital experiences to stakeholders around the world with previously impossible speed and scalability. The company's proven systems manage the entire content lifecycle process, improve productivity, enable sales and growth initiatives, ensure compliance, and drive optimization to employees and stakeholders across the extended enterprise. Founded in 2004, Xyleme's Create and Syndicate solutions have won numerous industry awards and are used by the world's leading Fortune 500 brands across every major industry vertical including: 3M, Cisco, Christus Health, Dunkin Brands,  T-Mobile, and VMWare.