Content for All
How to Make Web Content More Accessible

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INTRODUCTION

Creating positive user experiences based on site speed and usability is a great way to promote engagement, boost conversions, and encourage brand loyalty.

Placing the user at the center of design and content creation is the first step towards web optimization. This is known as user-centered design.

The concept of user-centered design should be familiar to web designers, administrators, and content creators tasked with managing websites. Although it can be difficult to optimize site content for various audiences, focusing on accessibility is one way to improve the experience of many users at once. This guide outlines how to make websites more accessible to users with disabilities—and explains the impact of doing so.

We've also included helpful resources that provide even more information on usability and accessibility to help you get started.

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Chapter 1: The Fundamentals of Accessibility

Enhancing the accessibility of your website may seem difficult at first, but as you learn more about the guidelines governing content accessibility online, you will see that simple adjustments can make a huge difference. Furthermore, steps taken to increase the accessibility of your site often lead to improved usability for general audiences.

This chapter explains:
- The concept of content accessibility
- The four principles of accessibility
- Why content accessibility is important

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The concept of content accessibility

The volume and quality of published content (articles, blogs, ebooks, gifs, infographics, listicles, memes, music, podcasts, white papers, webinars, videos and more) has increased dramatically every year since 2000. In fact, a report by Smart Insights states that 3.3 million Facebook posts, half a million tweets, and 500 hours of YouTube video were published every 60 seconds in 2016. And these numbers are a mere snapshot of the amount of information available online. Imagine how hard it must be for someone with limitations to their sight, hearing, or other abilities to enjoy this content. Without alternative methods to read, watch, or listen to web content, individuals with disabilities may miss critical information. That is what content accessibility is all about, giving people with disabilities reasonable access to all forms of web content.

According to the Web Content Accessibility Guidelines (WCAG 2.0), the guidelines that detail what is required to ensure comprehensive content accessibility, there are four principles of accessibility. For web content to be considered fully accessible, it must be perceivable, operable, understandable, and robust.

Meeting all four of these principles ensures that users with visual, auditory, physical, speech, cognitive, language, learning, and/or neurological disabilities can access and consume information with ease.

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The four principles of accessibility

Perceivable: Content must be presentable in various ways to ensure that users of different abilities can access it using different senses.

Operable: User interfaces and navigational components must be controlled in various ways to ensure that people with different abilities can control movement.

Understandable: Content must be written clearly using common language within the understanding of most individuals.

Robust: Content must be able to be interpreted by a variety of user agents, including automated technology.

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Why content accessibility is important

The United Nations' Convention on the Rights of Persons with Disabilities recognizes access to information and communication technology as basic rights for impacted individuals. Improving site accessibility helps these groups by giving them multiple ways to find and consume information.

Similarly, improving accessibility can also help your organization achieve other goals. For instance, search engines use content descriptions, classifications, tags, links, and other information to determine site relevance. The more you and your team use alternative tags, media captions, and other measures to improve accessibility, the more likely you are to increase your site's rank for certain key terms.

Now that we understand what content accessibility is, what it includes, and why it matters, we can start making the changes needed to reach larger, more diverse audiences. In the next chapter, we will explore six easy ways to improve your site's accessibility.

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Chapter 2: Six Easy Ways to Make Your Site More Accessible

Providing different ways to consume web content doesn't have to be hard. In fact, there are many simple fixes that go a long way to increasing content accessibility. In this chapter, we will discuss six easy ways for you to improve accessibility. Each recommendation is explained in context and tied to outcomes. This information can help you determine how accessible your site is, and whether your organization is ready to do more to reach disabled users.

This chapter explains:

Alternative text	Hyperlinks
Headers, data tables, and forms	Using color and font
Alternatives for multimedia	Page navigation

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1. Alternative text

What it is: Alternative text references any words or phrases that help viewers, screen readers, or other assistive technologies determine the nature of non-textual web elements. It is used in place of images that do not display and help provide context for the content's use.

How it works: Web managers or content contributors insert alternative text as an attribute in a hypertext markup language (HTML) document. When viewers access the site, alternative text is used by search engines, screen readers, and other tools to communicate information about non-textual elements.

2. Headers, data tables, and forms

What it is: Page organization can make or break user's experience of your website. Help them identify, interact with, and understand information they need by:

1. Grouping similar content together and using headers to identify new topics as they come. Help users find topics of interest quickly by using descriptive headers that provide information about what users can expect in the next section.

2. Using labels to identify and correlate information listed in data tables. Headers should identify rows and columns to communicate the relationship between information in different cells. Some tables may have several cells with a unique relationship to others and should be identified using the "scope" attribute in HTML.

3. Making forms easy to navigate, review and complete. Group related information (like personal identifiers) together so users can keep track of progress. Ensure that users can use the keyboard alone to navigate form fields. Denote required fields either with text or using Accessible Rich Internet Applications (ARIA).

How it works: The easier it is for users to understand what you're trying to say and what should happen next, a principle of conversion centered design, the more likely they are to convert. Much like the name suggests, this school of thought is focused on clarity in information increasing the likelihood of prospects to convert, either by making a purchase or completing a form.

In either case, the focus is on helping users get to the information they need quickly, presenting it in clear terms and providing an easy path for moving forward.

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3. Alternatives for multimedia

What it is: Extend the reach of audio, video, and other non-textual content by providing ways for deaf individuals to interact with it. Captions are typically offered for these elements, but are not always the best solution for all individuals. The WCAG recommends offering sign-language video alternatives for audio-only files as it offers the ability to express intonation and emotions that would otherwise be lost with caption-only alternatives.

How it works: As more multimedia content is created, it is critical to provide in-depth descriptions of these elements. Consider creating fully-composed alternatives for disabled individuals. Content creators can include synchronized sign language interpretations for all audio content with the screen-in-screen feature. Depending on the resources available for this content, it may be best to reserve this approach for critical communications like annual meetings and major announcements. As noted, captions are usually available and easily applied to audio for translation by assistive technologies.

4. Hyperlinks

What it is: Using descriptive language to help users understand content associated with hyperlinked text helps visitors determine whether they wish to click through for more information.

How it works: When using the hyperlink function, content creators can determine what appears in the place of web addresses for related information. In some cases, authors simply choose 'click here' or other nondescript phrases that provide no information about the hyperlinked material. Plain web addresses can be equally unhelpful, especially when they are not optimized for readability.

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5. Using color and font

What it is: Color, text weight, and tables are common ways to organize information or communicate relationships between content. Offering text alternatives helps users understand relationships between information.

How it works: People with certain disabilities may not immediately understand relationships between information without additional cues embedded in your page. Site readers and other text alternatives (sight videos, braille, etc.) help users infer meaning typically communicated through these visual cues.

6. Page navigation

What it is: Situating your content and page elements so that all content and structures can be controlled by keyboards.

How it works: A wide range of assistive technologies interface with keyboards so that users of various abilities can utilize keys and arrows to maneuver webpages. Building web pages that can be completely controlled using a keyboard makes it easier for these individuals to interact with your site.

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Chapter 3: Beyond the Basics: Advanced Tips for Web Accessibility

Now that you understand web accessibility basics, let's explore other ways to enhance accessibility. This chapter offers insights on other, more complex adjustments to improve site accessibility. This overview provides you and your team new ideas to consider as you plan for future versions of your site.

This chapter explains:
Document structuring
Non-HTML content
Dynamic content
Solutions for mobile

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ADVANCED TIPS FOR WEB ACCESSIBILITY

Document structuring

Content creators and web managers can help screen readers provide more accurate translations of web content by structuring documents in a certain way. Typically, this means content is well formed and includes appropriately placed start and end tags. Well-formed content is specific to content stored in XML as other markup languages have different terms and standards that vary slightly from this standard. But ensuring content is parsed into appropriate data structures is a great way to help prevent assistive technologies from crashing.

Non-HTML content

Help make non-HTML content like PDFs, PowerPoints, and Flash files accessible either by converting them into HTML or by providing alternatives. Some screen readers or other assistive technologies may have difficulty reading non-HTML files, so content managers must provide HTML alternatives or use tags to provide descriptions of the material.

Dynamic content

Consider disabling pop-ups, overlays, light boxes, videos, or other disruptive content so users with disabilities can access information on the page. Visitors using assistive technologies may struggle to quicky remove this content, become frustrated, and leave your site.

Solutions for mobile

There is an entirely separate set of guidelines dedicated to making web content accessible on mobile devices. The following list of recommendations is a summary of an expansive guide on the topic, developed by the World Wide Web Consortium (W3C).

The W3C offers a wealth of information to support content creators, web administrators, and others involved in website management and help them understand how to make sites accessible. Its website has the latest information on web accessibility, usability, and other best practices for creating and managing websites. As we will learn in the next section, accessibility is a continuing process that will change and grow both with your site and your users.

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Guidelines for making mobile accessible

1. Exploit all device capabilities to provide an enhanced user experience

2. Provide consistent navigation mechanisms

3. Do not use pop-ups, auto refreshes, or page redirects without warning users or offering an option to decline their use

4. Limit content to user requests

5. Send content in formats that are supported by mobile devices

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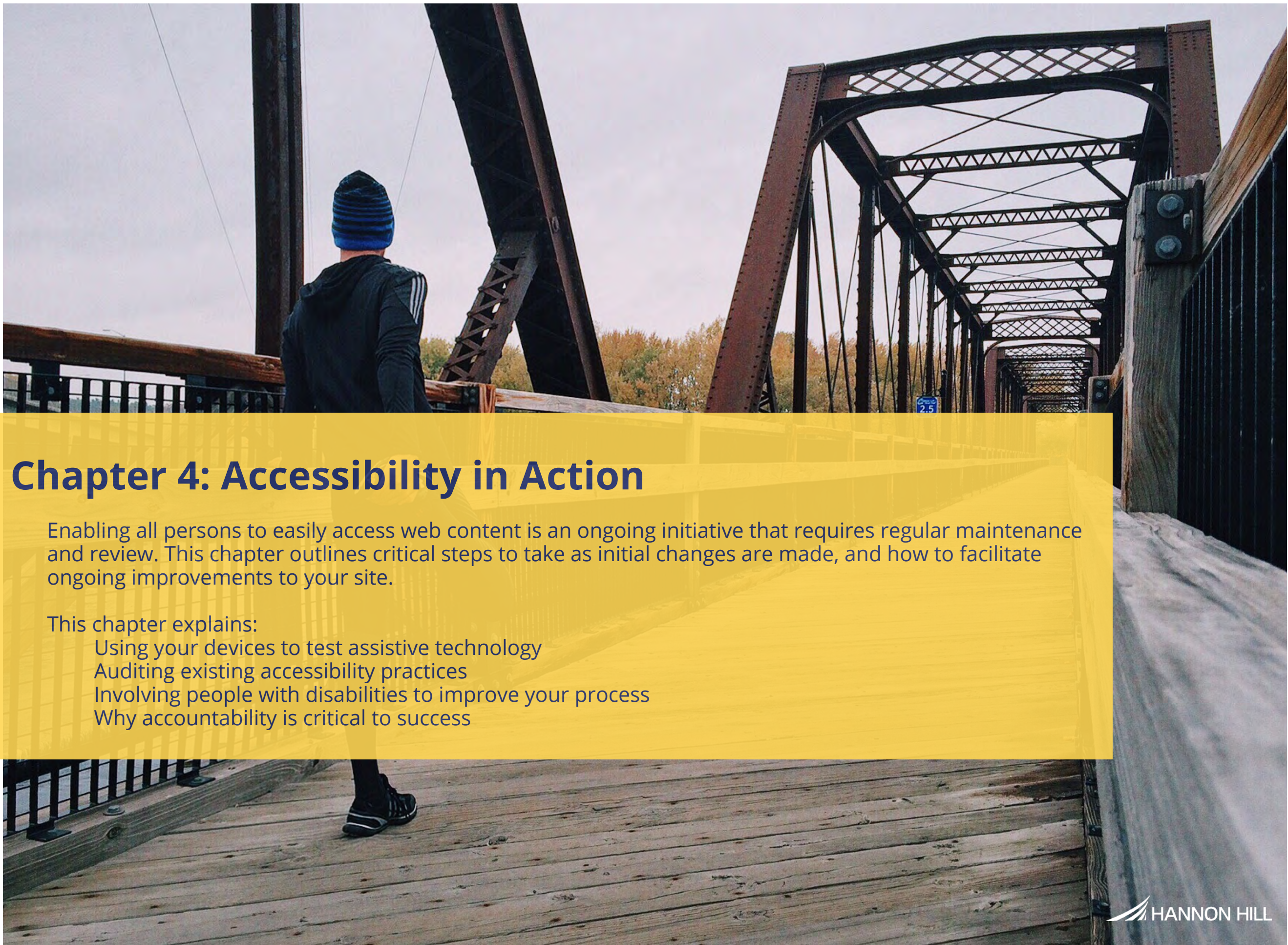
Chapter 4: Accessibility in Action

Enabling all persons to easily access web content is an ongoing initiative that requires regular maintenance and review. This chapter outlines critical steps to take as initial changes are made, and how to facilitate ongoing improvements to your site.

This chapter explains:
Using your devices to test assistive technology
Auditing existing accessibility practices
Involving people with disabilities to improve your process
Why accountability is critical to success

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ACCESSIBILITY IN ACTION

Using your devices to test assistive technology

It is one thing to read up on accessibility, it is another to experience it for yourself. Restrict your hearing, sight, or dexterity and try to use your laptop or phone. Most phones, tablets, and computers are preloaded with screen reading software you can use to replicate the experience of having low or no sight, impaired hearing, or limited dexterity. This will give you insight that research simply cannot, and fuel your efforts to make your website more accessible.

How to adjust your settings to use assistive technology:
1. Go to settings
2. Select accessibility
3. Choose which type of assistive technology you want to use (vision/ sound/dexterity)
4. The software will automatically adjust the display according to your selection
5. Complete routine tasks using assistive software

Auditing existing accessibility practices

Review your site to identify which steps must be taken to improve accessibility. Some organizations may have extensive measures in place to support disabled individuals, while others are just getting started. Either way, it's a good idea to review existing processes and update them according to best practices.

Involving people with disabilities to improve your process

Consider leading focus groups and trials with people with various types of disabilities. These groups should tour your site and provide feedback on its structure, navigation options, alternatives and accessibility overall. Use their input to make major decisions that will change how your site is presented.

Why accountability is critical to success

Form a task force to document, manage, and continuously improve the process of reviewing site accessibility. As more features are added to your site, this group will determine the impact on disabled individuals. Similarly, they will implement alternatives to maintain accessibility. In time, they will advocate for accessibility online and offline for disabled individuals.

Where to go for more information on accessibility

WCAG 2.0 Full Guidelines
WebAIM Training
Accessibility checkers
Understanding Sign Language
How to film signers
Web accessibility for mobile

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Summary

Now that your site is easier to use, start planning what you can do to enhance accessibility even more. As technology evolves, new challenges and opportunities will require more changes to maintain accessibility. Stay up-to-date on new developments by following recommendations from the W3C or WebAIM.

Track and measure your site's accessibility using automated tools that check web content and other site elements for compliance with common accessibility standards. There are plenty of digital tools that audit site accessibility and provide recommendations for improvements. Some enterprise software platforms, like Hannon Hill's Cascade CMS, have accessibility checkers built right in so users know if content is compliant before it is published. No matter what you choose, leverage what you've learned to make your site better for all users.

About Cascade CMS From Hannon Hill

Content created in Cascade CMS, Hannon Hill's award-winning content management system, is automatically checked for accessibility compliance as defined by section 508 of the Workforce Rehabilitation Act of 1978. Content is compared to relevant Web Accessibility Initiative (WAI) standards developed by the WC3 to help content creators, managers, and administrators quickly identify potentially inaccessible content. This tool also provides reference information to users so they can quickly resolve compliance issues and avoid delays. Organizations around the world use this feature to bring content to audiences of all kinds, and can help you do the same.

In the market for a new CMS? **Download this buyer's guide** to learn all the things to look for in your next system.

Want to learn more about Cascade CMS? **Contact us today** or visit **www.hannonhill.com**.

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