This handbook provides everything you need to know to make your digital presence accessible. It includes a simple and thorough explanation of accessibility, where to begin, quick wins, best practices, tips and tricks, and more.
How to Use This Handbook

This handbook aims to give you an introduction to accessibility from various perspectives, helping you define roles and responsibilities and understanding the list of tasks at hand. It also gives you an introduction to Siteimprove Accessibility.

The handbook has two main sections:
- A Beginner’s Guide to Digital Accessibility
- A Beginner’s Guide to Siteimprove Accessibility

You can use the entire document as learning material or as a reference to look up specific areas of interest.

Who Should Use This Handbook?
Accessibility is relevant to anyone working with websites, regardless of whether you are a web designer, web developer, web manager, or web editor. Generally speaking, digital accessibility is quite technical, and many aspects are established in the development phase.

Major Takeaways
- Digital accessibility overview
- Roles and responsibilities involved in digital accessibility
- Priority areas and quick wins
- How to fix errors with Siteimprove Accessibility
PART 1

A BEGINNER’S GUIDE TO DIGITAL ACCESSIBILITY

CLICK to open the corresponding section

PART 2

A BEGINNER’S GUIDE TO SITEIMPROVE ACCESSIBILITY
# CONTENTS _ Part 1

**A Beginner’s Guide to Digital Accessibility**

- What are Assistive Technologies? ............................................. 5
- What is Digital Accessibility? ................................................. 5
- What are WCAG 2.0 Guidelines and Who Defines Them? ........ 6
- The Process of Achieving Digital Accessibility ......................... 6
- Defining Resources .................................................................. 7
- Roles and Responsibilities of Digital Accessibility ................... 7
  - Web Managers .................................................................... 7
  - Web Designers ................................................................... 8
  - Web Developers ................................................................... 8
  - Web Editors and Content Creators ....................................... 11
- Developing or Redesigning a Website ...................................... 12
  - Requirements Specifications ............................................. 12
  - Design and Development .................................................. 13
  - Publishing Content ........................................................... 13
  - Migrating Media Players, Forms, and Old Content ................ 13
- Accessibility Top 5 ................................................................. 14
- Digital Accessibility Resources .............................................. 14
Part 1: A Beginner’s Guide to Digital Accessibility

Surveys show that up to 1 in 5 people have a disability that affects the way they use the internet. These disabilities encompass physical and cognitive barriers including color blindness, full blindness, hearing loss, dyslexia, paralysis, and more. Without an accessible website, 20% of internet users will encounter difficulties trying to navigate a site.

Having an accessible website not only increases your potential number of users, but it also increases search engine optimization (SEO) and improves usability for every user, regardless of ability. Achieving accessibility on your website is worth the investment. You ensure that all people, including those with disabilities and reading difficulties, can use your web pages with ease. It allows most internet browsers and assistive technologies to render content in an understandable way.

What are Assistive Technologies?

People with disabilities such as low vision, cognitive challenges, and hearing or motor impairments often utilize assistive technologies when using the internet. By presenting content in a different way, such as reading a page aloud, these technologies assist the user in writing, spelling, reading, and navigating. It is important for software and websites to comply with the standards that allow assistive technologies to interpret and render content properly. The Web Accessibility Initiative (WAI) provides information on how different types of users browse the web and the technologies used: w3.org/WAI/intro/people-use-web/browsing.

What is Digital Accessibility?

If you look at all areas of user experience (UX) on the internet, accessibility is one of many. Accessibility can and should be considered a fundamental technical foundation on which you build other aspects such as usability.

The term “accessibility” is used widely, but according to the World Wide Web Consortium (W3C), web accessibility means that people with disabilities can perceive, understand, navigate, interact with, and contribute to the web.

Digital accessibility is about technical provisions. It is very much about how websites are implemented and the tools that are used to publish content on websites. But accessibility is not just about techniques; the way you communicate on web pages can also affect accessibility. This is described in detail in the section Roles and Responsibilities of Digital Accessibility.
What are WCAG 2.0 Guidelines and Who Defines Them?

The W3C is the organization that standardizes the internet. The W3C working group Web Accessibility Initiative (WAI) defines and composes guidelines for proper web accessibility. These globally recognized guidelines are called the Web Content Accessibility Guidelines (WCAG) and are formulated in such a way that if a website complies, it also ensures a robustness that allows most user agents (such as internet browsers and assistive technologies) to interpret web pages in a consistent way.

WCAG was originally written in English and has since been translated into 16 other languages, plus several more “unauthorized translations.”

WCAG 1.0 was first introduced in 1999, and the current 2.0 version of WCAG was released in December 2008. Version 2.1 is in development and is set to release June 2018. Primary contributions are expected to come from the Mobile Accessibility Task Force, Cognitive and Learning Disabilities Accessibility Task Force, Low Vision Task Force, and public input.

As of now, WCAG 2.0 is divided into four main principles: Perceivable, Operable, Understandable, and Robust. Each of these principles are divided into guidelines that are further divided into individual success criteria. These success criteria are most often used as compliance requirements around the world. The criteria are divided into three levels: A, AA, and AAA. Level A criteria affect the largest number of potential users in the most severe ways. In most countries, websites should be compliant to Level AA, encompassing the first and second levels of accessibility requirements. Becoming completely AAA compliant is challenging, and these criteria affect the least number of users in minor ways.

Level A and AA include 38 criteria, and these are the framework for the rest of this handbook.

The structure and details of WCAG 2.0 are somewhat complex. It takes a lot of work to understand and interpret the guidelines, but in most cases, you do not have to relate to all the criteria. It is easier to pick out areas that are relevant to your specific role. For instance, if you are a developer, a high number of criteria are relevant to you. If you are a content management system (CMS) provider, another set of criteria are relevant for you. And if you are a web content editor, a third set of criteria are relevant to you.

The Process of Achieving Digital Accessibility

Web accessibility isn’t achieved solely through a website development project; it is a process. To be successful, accessibility must be part of the overall website strategy.

Accessibility can often be neglected in a website’s strategy. The project manager usually has too much on his/her plate, and accessibility can slip through the cracks. It isn’t neglected as a result of not caring or a lack of interest, but because there is not enough transparency with vendors. The tendency is to assume that adding accessibility to your requirement specifications means it will be taken care of. Unfortunately, this is not always the case.

Another problem is that many web managers do not know enough about accessibility to know that proper web accessibility is a process rather than just a coding task during development.

Accessibility isn’t something that can simply be added into the current web project and the new website budget. For example, if you want to add a video to your website and want it to conform to Level AA guidelines, which is mandatory in many cases around the world, there are many aspects to consider. You must provide captions, audio description, and several other things. If you wish to conform on Level AAA, you must also provide sign language of the content. Do you have the resources for this every time you upload a video to the website?

Accessibility is relevant throughout the lifetime of your website. Every time you integrate a third-party solution or you upload video or audio content, you must consider accessibility. The content editing
process and the website’s CMS also influence the situation, and in some cases need to be revisited.

It’s a good idea to create a strategy for accessibility goals and how you plan to achieve them. It is also important to integrate accessibility criteria into the organization’s communications policy, design guide, policy for purchase, and so on. Create a matrix of stakeholders in the process.

**Defining Resources**

Assessing a website and its compliance with accessibility guidelines requires a considerable amount of work and knowledge. First, clarify the roles and responsibilities and which areas you can tackle within the organization and which ones require outside help. This is relevant for both testing and fixing accessibility issues.

Many issues can be fixed within the organization, and some issues require outside help. Sort through the list of issues and divide them into these categories.

Remember that issues on Level A are considered most important, and Level AA issues are considered second most important. You can pick from Level AAA depending on the types of pages and target users.

**Roles and Responsibilities of Digital Accessibility**

Dividing ownership and establishing responsibilities is crucial. It helps to have an accessibility coordinator or a go-to person who is consulted when questions or decisions arise. These could involve general accessibility knowledge, re-structuring, new purchases and integration, change of existing policies, and more.

It is also a good idea to divide your strategy into areas of responsibility and subsidiary goals:

- Who takes responsibilities for accessibility during design and development?
- How will we track our progress toward becoming accessible and who will hold us accountable?
- Who will organize training for not only the web team but the entire organization?

**Web Managers**

If you are responsible for achieving accessibility on a website, then all WCAG 2.0 criteria are relevant to you (usually on Level AA). It is necessary to have a fundamental understanding of the subject in order to see a project through from development to compliance. It is also important to understand the requirement specifications, as well as any accessibility legislation that directly applies to your organization. You must also train your web editor colleagues on how to publish content accessibly. This way, any new content enhances your site’s accessibility and does not create new accessibility issues.

It is also vital to integrate relevant accessibility criteria into policies and brand guidelines and to educate the entire organization on any changes.

If your team is updating an existing website, it is often a question of “Realistically, what can be fixed now?” Start by using tools that can give you a quick overview of issues. For large websites, this effort most likely needs to be prioritized. Begin with your front page and a selection of template pages. Often, these require minor adjustments in the CSS or in a template, and an issue will be fixed across all pages. If there is special content on some web pages such as video, dynamic content, or self-services, it is a good idea to include these pages as well.

There may be areas where a quick fix is not possible, and that should be directed to development. Write these down so you don’t forget and bring them up in the next relevant meeting.

Looking long-term, create a strategy for testing accessibility on a regular basis. Whether it is weekly, monthly, quarterly, or bi-annually, decide what is
realistic and necessary for your organization.

**Web Designers**

As a web designer, several accessibility criteria are especially important to help you create an inclusive website for as many users as possible.

**Consistent Design**

For accessibility and general UX purposes, it is important that design is consistent across all your web pages. Global elements such as menus and help facilities should appear in the same order everywhere on the site, and it is also important that elements with the same function (such as icons and references) are ordered in the same way on every page (Success criteria 3.2.3 and 3.2.4).

**Navigation**

In order for users to find information easily, there should be more than one way to find specific content on a web page. A user can find content on a page by navigating through the intended page hierarchy, but it should also be possible to find the page in another way through a sitemap, an index, or a search function (Success criterion 2.4.5). This allows visitors using keyboard navigation to find exactly what they need without barriers.

**Headings**

When designing the look, feel, and architecture of a website, keep in mind that some users cannot get a visual overview of a web page; they have to do this structurally. Make sure pages are divided into logical sections, each with a heading that describes the content so that assistive technologies can render them as section headings. To do this properly, sections must be tagged with headings such as `<h1>`, `<h2>`, `<h3>`, and so on. Places on the site where you wish to logically and visually highlight an area by using bold font/large font/another color, this heading should also be highlighted in the code so the heading not only functions visually, but also structurally. (Success criteria 1.3.1 and 2.4.6)

**Use of Color**

A web page with information or data represented solely by color is frustrating and ineffective for users who are color blind. For instance, conveying links within text should go beyond making them a different color. Supplement them with underlined text, a symbol, etc. (Success criterion 1.4.1)

In order for visually impaired users to read all the text on web pages, it is important that the color of the text and the color of the background are in sufficient contrast with one other. This can be achieved by conforming to the required contrast ratio of 4.5:1 for regular text and 3:1 for large text. There are a number of tools available to assist in measuring contrast ratios quickly. (Success criterion 1.4.3)

**Links**

When an element on a web page is a link or something clickable, it is important for the link text or element description to make sense when read out of context. Link texts such as “Read more,” “Click here,” or “here” are examples of poor link text, because visitors using screen readers or other assistive technologies will be unable to decipher where the link will lead without the proper context. Be specific and concise within link text, such as “Click here to download the Accessibility Checklist.” (Success criterion 2.4.4)

**Interactive Elements**

When designing interactive elements, it should be clear to users what is to be entered, chosen, checked, etc. When text fields, drop-downs, check boxes, and radio buttons are used, they should always have descriptive text associated. (Success criteria 2.4.6 and 3.3.2)

**Web Developers**

**Page Titles**

Make sure that all web pages have a descriptive title reflecting the page’s content. Also make sure that web editors can enter page titles via the authoring tool (for example CMS). (Success criterion 2.4.2)

**Headings**

Not every CMS adds headings automatically. A website’s main areas must be categorized by headings, often manually within the code. Pay special attention to headings when creating templates. (Success criteria 1.3.1 and 2.4.10)
Keyboard Navigation
All content on a web page should be navigable both with a computer mouse and from the keyboard alone. This applies to forms, buttons, links, and more. (Success criteria 2.1, 2.1.1, and 2.1.2)

Some users are unable to use a computer mouse and instead use the keyboard to navigate by tabbing through content on a web page. Because these users must always be able to see where they are located on the page, the indicator should always be visually evident. (Success criterion 2.4.7) Most browsers automatically show this with a dotted line around the content. You can also implement your own way of showing this. Note: some Reset Stylesheets remove this highlighting, so be sure to address this highlighting within the Reset CSS.

Forms
Placeholder text that indicates the purpose of a form field is not sufficient instructions for users. To make sure users can identify and use a form or search field, explicitly add text to the field through a label. (Success criterion 3.3.2)

Content Sequence
When content for web pages is coded, make sure that the content has a meaningful order, not only visually but also in the coding sequence. Some users navigate pages by this order. Be sure that the order of content is sensible when styles are disabled and when tabbing through content. (Success criteria 1.3.2)

Enlarging
Make sure web page text can be resized up to 200% as a minimum, and still be understandable without loss of content. Newer browsers can zoom content, and this is usually the way assistive technologies do it as well. (Success criterion 1.4.4)

Language
In order for user agents to render content in the correct language, it is important that web pages have the correct language definition in the HTML tag. The language tag should be “en” for English pages, “da” for Danish pages, and so on. (Success criteria 3.1.1 and 3.1.2)

The CMS should also give web editors the ability to tag text that appears in a different language than the rest of the page and choose the correct language for this part. The tagging should add the lang=”” attribute in the code.

Coding
In order for the website to display consistently across different platforms such as operating systems and browsers—and for assistive technologies to render content in a meaningful way—you should comply with format standards. (Success criterion 4.1.1)

If, for instance, you are publishing in XHTML 1.0 or HTML 5.0, follow the syntax rules for this format. You can check your web pages for syntax errors within tools such as Siteimprove Accessibility or at validator.w3.org.

Also make sure that elements are marked up with the code that is intended for the purpose. For example, HTML headings should be tagged as <h1>, <h2>, and so on. (Success criteria 1.3.1 and 1.3.2)

Data tables should be tagged as <table>, and web editors should be able to describe the data tables via <caption>. Headings for columns and rows should be defined using <th> and perhaps “header id” and “scope.” If a complex data table needs explaining for screen reader users, then this should be done via “summary.” (Success criteria 1.3.1 and 1.3.2)

When writing text, web editors should be able to emphasize with <strong> and <em>. (Success criterion 1.3.1)

When form elements are used, a label should be explicitly connected to each control, and form elements that belong to the same group should be assembled. For instance, a group of radio buttons should be grouped with <fieldset> and <legend> or role=”group”/role=”radiogroup” and WAI-ARIA labels. (Success criteria 3.3.2 and 4.1.2)

User Input
If the user must enter information into a text field, ensure they receive instructions to enter the text
correctly. (i.e. phone number with dashes, xxx-xxx-xxxx) Also ensure that the user is notified if he/she make a mistake. Instant notification is better for all users rather than being notified upon submission. When filling out a form that is part of a financial transaction or a legal commitment, the input must be validated to avoid errors, or the user should have the option to review before submitting it. As a third option, the user should always be able to reverse the submission. *(Success criteria 3.3.1, 3.3.2, 3.3.3, and 3.3.4)*

**Graphics**

When web pages contain non-text elements, one of the most important rules is to provide a text alternative that describes the purpose of the non-text element. *(Success criteria 1.1.1)*

For example, images use the “alt text” HTML attribute alt="". It is important to note that the alternative text reflects the purpose of the image and not necessarily what the image is of. (Find detailed information on images in the section Web Editors and Content Creators.)

For web editors to provide alternative text correctly, it is important that the authoring tool, such as the CMS, allows for alternative texts on images. The image tag should always include an alternative attribute, regardless of whether an image description is needed. If the web editor decides that the image is only decorative and does not need an alt text, they must add a “null” alt attribute (alt="").

Alternative text is context specific, so be sure if you enter alternative text for one image when uploading to a media library, review the alternative text if reusing it across several pages. You should be able to enter a new alternative text every time an image is used on a web page. A “title” attribute does not serve the same function as an “alt” attribute and should not be used in place of the “alt.”

If a web page contains a media file, it should also be given a descriptive alternative text.

**Audio and Video**

When audio and video files are published on a web page, there are a number of relevant criteria, such as providing an alternative format, captions, and audio descriptions. These are described in detail in the section Web Editors and Content Creators. *(Success criteria 1.1, 1.1.1, 1.2, 1.2.1, 1.2.2, 1.2.3, 1.2.4, and 1.2.5)*

Throughout development, it is important to ensure that all buttons and navigation in the player can be used both with a computer mouse and from the keyboard alone. At the same time, buttons and navigation require text descriptions to help screen readers. *(Success criteria 1.2.1, 2.1, 2.1.1, and 2.1.2)*

For a video, it should be possible to add captions and to enter a dedicated track for audio description. *(Success criteria 1.2.1 and 1.2.2)*

If a passage of audio starts automatically, the user should be able to pause, stop, or control the sound volume. *(Success criterion 1.4.2)*

**User Control**

Some users need more time to read and navigate web pages. Therefore, if some sort of time limit is present on pages, such as a time out, the user must be able to change the limit either by adjusting, extending, or disabling it. *(Success criterion 2.2.1)*

If moving, blinking, or scrolling content is added, it is also important that the user can pause, stop, or hide this content. *(Success criterion 2.2.2)*

In order for screen reader users to avoid having to listen to the same content every time they load a new page, provide the option of skipping blocks of repeated content. Repeated content can be global and local menus and help functions. There are several techniques for ensuring this; the easiest way is to provide a link at the top of all pages that takes the user to the main content of the page. *(Success criterion 2.4.1)*

When an element is to be altered by the user, such as a drop-down menu, a radio button, etc., it is important that it acts as the user expects. Elements
should not react solely when the user lands on it from the keyboard. It should react when the user has had the time to choose and confirm. *(Success criteria 3.2.1 and 3.2.2)*

**Blinking Content**
Content should not blink more than three times per second, or else it may cause seizures. *(Success criterion 2.3.1)*

**Web Editors and Content Creators**

**Page Titles**
In a CMS, you name or title a web page when you create it. In some systems, there is also a specific field for this called “Title.” It is important that this title describes what the page is about, because this appears in the top of your browser and is the first thing read by a screen reader. Page titles are also used for bookmarks and search results. *(Success criterion 2.4.2)*

**Text**
When writing text for web pages, consider the fact that some users can only get an overview of a page structurally rather than visually. Make sure that pages are divided into logical sections with descriptive headings. You can use several levels of headings: Heading 1, Heading 2, etc. (in the code `<h1>`, `<h2>`, etc., so assistive technologies can render them as headings). *(Success criterion 1.3.1)*

Some low vision users will perceive a web page very differently than the way other users would. Therefore, do not provide important information solely using color or with an instruction requiring sensory skills. For example, avoid writing things like, “You can read more about the event in the blue box on this page.” *(Success criterion 1.4.1)*

Not all people see a web page the way you do. While keeping disabilities in mind, also remember that many websites are built using responsive web design. This means that page elements can shift according to device (mobile, desktop, etc.) as well as by web browser. Therefore, providing important information based on direction is also not advised. For instance, “You can read more about the event in the box to the right” may render meaningless if page elements have shifted.

Always make sure you state the language of your content piece. In the code, this is done with the attribute `lang` “”. Your CMS may allow you to highlight the piece of text and choose a language from a drop-down menu. *(Success criteria 3.1.1 and 3.1.2)*

**Links**
When you add links on a page, write link texts that make sense when read out of context. For instance, avoid using link texts such as “Read more,” “Here,” “Click here,” “Publication,” etc. An example could be: “You can read more about the Assistive Technologies event here.” This way you are giving a link text that in itself is a good indicator of what the destination page is about. *(Success criterion 2.4.4)*

**Images**
When you add images to a web page, consider the fact that some users cannot see images. They need a text alternative. In most CMSs this is stated as “alternative text” or “alt text.” The text provided here is not visually displayed on the page but is hidden in the code and is accessed by screen readers. The alternative text is not the same as a tooltip, the text displayed when you hover over the image from the “title” attribute. *(Success criteria 1.1.1)*

Close your eyes and visualize what information you would need if you could not see an image. Describe the purpose of the image and not necessarily what the image is of. If the image links somewhere, it is important to describe where the link leads or what happens when you click. If the image contains pertinent information, that information should be stated in the alternative text. If the image is used solely for decorative purposes, such as creating ambiance or giving visual context, then it should have “null” alternative text. However, your CMS should automatically insert the tag `alt=””` to the image in the code, as this is important for decorative images.

Avoid using images of text. This means that you should never write or scan text into an image editing program and save it as an image. No screen reader
technology can read images of text, because you cannot highlight text within an image and have it read aloud. Images of text also tend to pixelate and become blurry upon magnification, making them difficult to read for those with other visual or cognitive impairments. For many dyslexic web users, their assistive technology requires them to manually highlight text on a page to be read aloud. (Success criterion 1.4.5)

**Video and Audio**

If you are using video or audio clips on a web page, there are several criteria to consider, such as captioning and audio description on video. Audio description is an extra track that explains to visually impaired users what is happening on screen. If you are not able to supplement your videos with audio descriptions, then give an alternative in the form of a transcript uploaded to or linked from the page. However, be aware that without audio descriptions you cannot be AA-compliant, but only A-compliant. (Success criteria 1.1, 1.1.1, 1.2, 1.2.1, 1.2.2, 1.2.3, 1.2.4, and 1.2.5)

If the content is solely visual or only audio, then a text version is an accepted alternative on both levels.

**Tables**

When using data tables, it is important to indicate headings for rows and columns. The way to do this is very CMS-specific. In some cases, the text editor provides an accessibility tab where this information can be entered when using data tables. (Success criteria 1.3.1 and 1.3.2)

**Lists**

When listing items, make sure to use the function for this that is built in to the CMS editor. This will ensure that accessible code is entered for lists. Avoid using symbols that looks like a list, such as bullets, dashes, asterisks, etc. (Success criterion 1.3.1)

**Documents**

Many WCAG 2.0 principles that apply to web content are relevant for documents, including PDFs. In fact, most legislation around the world requires accessible documents in order for a website to be compliant.

Our guide How to Create Accessible PDFs (http://go.siteimprove.com/how-to-create-accessible-pdfs) can help you get started.

**Developing or Redesigning a Website**

As soon as you think “new website,” you should think “accessibility.” By considering and implementing accessibility early on, the process will be much more manageable than if you think “accessibility” in the late stages of website development or redesign.

**Requirements Specifications**

When you are writing your accessibility requirement specifications for your web development team, it is important to use the right standards, preferably WCAG 2.0. In web design projects, it is common for the buyer to request the website to be designed in conformance with WCAG 2.0 on Level AA. However, this requirement may not be as straightforward as it would appear.

In the middle of the project, how will you determine whether or not the website meets your expectations? Explicitly state the individual success criteria you wish to comply with. Have your website developer state if and how this will be achieved. For example, design a table or list to be filled out by you and your developer: It is also important that the CMS helps web editors

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
<th>Notes</th>
<th>Developer Solution</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1</td>
<td>All non-text content that is presented to the user has a text alternative that serves the equivalent purpose, except for the situations listed below.</td>
<td>Relevant for images, inputs, CAPTCHA, and more.</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
publish accessible content. Pick the necessary checkpoints from the Authoring Tool Accessibility Guidelines, which dictate that the tool generates accessible web content, helps web editors to publish accessible content, and that the tool itself is accessible. Explicitly state requirements for how to:

- Handle alternative texts for images
- Use of headings
- Ability to create accessible data tables
- How to make quotes (<q> and <blockquote>)
- How to enter page titles
- How HTML code created by the CMS complies with W3C standards
- How to tag change of language in the text

Consider the organization’s design manual and if there are any contradictions with accessibility guidelines. For example, there are contrast ratio requirements between background and text colors. For this reason, it is important to use accessible color combinations. *(Success criteria 1.4.3)*

**Design and Development**

A handful of accessibility criteria are relevant when starting the phase of designing and creating wireframes. Think about navigation, the use of headings, colors, link texts, white space, and descriptions, especially where the user is to click on, fill out, or choose content on web pages.

When it comes to the development process, most accessibility criteria are relevant. Therefore, it is important that the people developing the solution have a solid understanding of accessibility. Make sure you test the solution during the process from start to finish. If you wait until the end, it is nearly impossible to correct possible errors and shortcomings before the site goes live. It is especially important that templates are tested as early as possible before building on them to avoid spreading mistakes to hundreds or thousands of pages.

**Publishing Content**

Make sure your web editors are trained to publish content the “accessible way.” This way, when content is added both in the development phase and after you’ve launched, it furthers your site’s accessibility and does not introduce new accessibility issues.

**Migrating Media Players, Forms, and Old Content**

Areas that are often neglected involve third party solutions, such as media players and forms. Remember these in the process of redesign or development. They should also be accessible!

Also think about content you migrate from the old system to the new. If you change the HTML/XHTML version, the syntax specifications from W3C are different. There might also be content from the old system that is not accessible. After all your hard work, the last thing you want is to carry old problems over to your new website.
1) Images
   a. Provide alternative text for images that reflect the purpose:
      i. Decorative: alt=""
      ii. Has a function: Describe
      iii. Links: Describe destination
      iv. Avoid images of text where possible. Where you cannot, make sure that text alternatives are equivalent.
      v. Be certain that backgrounds and text colors in photos and on web pages are in sufficient contrast to each other.

2) Links
   a. Write link texts that can be read out of context. Avoid “Click here,” “Read more,” etc.
   b. Do not convey a link by only changing the color. Underline the link, add an asterisk, etc.

3) Headings
   a. Divide pages into logical sections, each with a heading (<h1> to <h6>) that describes the content. Content that is logically connected must also be visually connected and connected in the code.
   b. Do not give instructions based solely on location of content, such as “In the box to your right…” or on the use of color, such as “In the green box you will find…” Supplement with a heading.

4) Forms
   a. Label all form fields with text that indicates the purpose of the field.
   b. Be sure all forms are navigable by mouse and keyboard.

5) Skip Navigation
   a. Provide the option of skipping blocks of repeated content in areas such as global and local menus and help functions.

Digital Accessibility Resources
Web Accessibility Initiative (WAI) with W3C
(w3.org/WAI)
Find an extensive collection of information on how to work with accessibility.

Accessibility Guidelines Working Group
(w3.org/WAI/GL/)

Siteimprove Blog
(siteimprove.com/blog/?topics=web-accessibility)
Dig through this library of blog posts covering accessibility from different angles.
A Beginner's Guide to Siteimprove Accessibility

How Siteimprove Accessibility Helps Your Work 16
Automated and Manual Testing 16
Who Should Use the Tool 16
Webmaster 16
Developer 16
Web Editor 16
First Time Using the Tool? 17
Accessibility Overview Page 17
Summary 17
Issues Page 20
Guidelines Page 20
Pages Page 21
Page reports 22
PDFs Page 22
Validation 23
Decisions 23
Getting Started 24
Quick Wins 25
Working With PDFs 26
Creating a Printable Report & Email Reports 28
How Siteimprove Accessibility Helps Your Work
Siteimprove’s automated accessibility tool scans a website, assessing every page using WCAG 2.0 guidelines. The tool then provides you an overview of issues, the pages on which you will find them, how these errors affect your website visitors, and tips on how to fix them.

There are two scenarios in which it is particularly beneficial to use the tool:

- **On an Existing Website** – Use the tool to work through current issues and sort them based on issue type, where they occur, or by who should fix them. Monitor new issues and address them promptly.

- **When Building a New Website** – Have the development site crawled to quickly catch any accessibility issues before they become too extensive and require a lot of time to fix.

Automated and Manual Testing
Many accessibility issues can be discovered through Siteimprove’s automated Accessibility tool. Some aspects must be evaluated through human assessment, however, as it is impossible to test all issues via automated testing.

Who Should Use the Tool

**Webmaster**
The person(s) in charge of the website may choose to assign themselves as an administrator, which allows them to sort through the reported issues and assign them to lists: Webmaster, Developer or Web Editor. The webmaster is able to make site-wide decisions about each issue. For example, if fixing a given issue is currently beyond what is feasible for the organization, then that issue can be marked as such. All users have access to a list that includes all of these “Can’t Fix” issues.

**Developer**
The list of issues for this role is typically related to style sheets and CSS. Often, this list is for a website provider and not the website owner.

**Web Editor**
In the tool a list is available for web editors. It lists issues that are introduced in the content creation process.
First Time Using the Tool?
If you are new to the Accessibility tool, it is recommended that you explore the tool to get an overview of how the tool works with your site.

If you are looking for a list of issues on your website, take a look at the Issues page.

If you would like to learn more about WCAG 2.0 guidelines and the issues your website has in accordance to these, it would be beneficial to look at the Guidelines page.

Accessibility Overview Page
Summary
The Accessibility dashboard provides an overview of several areas. The various circles indicate the number of issues present on the website and within the chosen WCAG 2.0 group: A, AA, or AAA issues.

Depending on organizational responsibilities, an overview of issues within the categories of editor, webmaster, or developer are available. Additionally, you are provided with a group of high priority issues:

- Headings
- Images
- Links
- Forms
A history graph reports fluctuations in the number of issues, and a progress bar monitors your progress with fixing issues over time. If you are working on portions of the website and want to check it right away, you may choose to generate a new sitewide scan on demand.
As PDF files are often a large portion of web content, the tool also provides you a list of and direct links to PDF files with the highest number of errors.

**My Sites**
Gain an overview of the accessibility status across all your websites and filter by team tags. At a glance, see the total number of A, AA, AAA issues, plus the number of PDFs with issues.

**Groups**
Groups are used to display information for specific sections of the website that belong to different team members. Only groups that are visible under your profile are displayed.

**Accessibility Policies**
Siteimprove Policy allows you to employ accessibility best practices across your digital presence and create policies specific to your organization. Examples include “Find words in all capital letters” or “Max length of words.”

**Single Page Check**
Enter individual URLs at any time to check the accessibility status of specific pages.

**Issues Page**
The Issues page provides you with a list of issues on your website and can be filtered according to an individual's responsibilities, high priority issues, conformance level, and severity. Here, you can move issues between the areas of responsibilities and continuously track progress toward accessibility compliance with the dynamic progress bar.
Guidelines Page

The Guidelines page provides you an overview of all WCAG 2.0 success criteria, displaying which criteria your site complies with and which criteria it does not. Keep in mind that some WCAG 2.0 criteria require manual testing, which are distinguished within the tool. You can also view all individual issues for each success criterion.
Pages Page

If you wish to work with individual pages, you can view and navigate a list of “Pages with Issues.” Consider prioritizing pages with high priority issues or higher traffic. Once you click on a page in this part of the menu, you are brought to Page Reports.
Page reports
Individual Page Reports display all issues present on that page. Filter by security or conformance levels, and read detailed descriptions of issues that are also highlighted on the page where possible. You will also find links to techniques that can help you fix issues.

PDFs Page
We can crawl all PDFs on your website and provide you with an overview page of PDFs with accessibility issues. We provide a summary of issues for each PDF and a link to a document report with detailed descriptions of each issue, as well as a visual highlighting of the issue on the actual page (where possible).
Validation
If you would like to know how your website is performing in accordance to the W3C syntax requirements for HTML and CSS, we provide you with two pages: HTML validation and CSS validation.

HTML Validation
We provide you with an overview of all your web pages and the number of errors on each page, plus a link to the W3C validation service that provides detailed descriptions of each error.

![HTML Validation](image1)

CSS Validation
We provide you with an overview of all your style sheets and the number of errors on each style sheet, plus a link to the W3C validation service providing detailed descriptions of each error.

![CSS Validation](image2)

Decisions
When you choose to make decisions on an issue for the entire website, on individual pages, or for individual items, your decisions are saved in a section which contains two pages:

Issue Decisions
If decisions have been made for global issues or on individual pages, these will appear in this table.

![Issue Decisions](image3)
Reviewed Items

If specific items have been reviewed on the Accessibility Page Report, they will appear in this table. This applies to items that have been reviewed on individual pages and sitewide.

Getting Started

First, the person(s) predominantly in charge of the website should sort through the list of all issues reported. Afterwards, they can assign issues to the correct team member (webmaster, developer, web editor), or they can decide on issues that do not need to be handled immediately.

Siteimprove Issues: Errors, Warnings, and Reviews

- **Error** = Issues that can be tested automatically and where the instances are with certainty violations the Web Content Accessibility Guidelines (WCAG) 2.0.
- **Warning** = Issues that can be tested automatically and where the instances are accessibility best practice violations.
- **Review** = Issues that cannot be checked automatically but requires a manual inspection to determine if each item lives up to the success criteria.

Start with Level A issues, as they are considered the most severe. Begin with the errors flagged by the exclamation point icon. Next, move on to AA errors.

When you have worked through errors on Levels A and AA, then you can move onto warnings, flagged with the triangle icon. These are also important to tackle in order to become Level AA compliant.

Finally, sort through review items to determine next steps and delegate amongst your team. If you have limited resources, another way to prioritize is to use the filtering option for high priority areas: issues with headings, images, forms, and links.

Remember that you can always revisit Issue Decisions when you have the resources to fix them.
Quick Wins
Most quick wins are issues introduced via style sheets or templates. It is usually a matter of fixing a bit of code in one area, and the fix will take effect on all pages where the issue occurs. Look for errors that are present on a large number of pages, as this likely indicates a CSS/template issue.

Examples:
- Issues with contrast ratio
- Issues with forms such as global search field
- No definition of language for web pages
- Inability to bypass blocks of repeated content

The developer or web provider often needs to fix these types of issues.
Working With PDFs

PDFs may be a big part of your web content, and it is possible to greatly increase the accessibility of these documents for many users.

In the PDFs page, which is available from the left-hand menu, you are given a list of all PDFs on your website (or within a chosen group) that have accessibility issues. PDFs without issues will not appear in this list.

You have several filtering options available. One option is to look only at PDFs that are not tagged. Tagging is a fundamental prerequisite for accessibility, because it allows user agents such as screen readers to know how to render content in a meaningful way. If there is no tagging, then there is no information on text types such as paragraphs, headings, lists, tables, and so on. You may also filter for documents without machine-readable text, which likely indicates that a document is scanned.

Fixing PDFs that are not tagged is a good way to optimize your efforts. PDFs with a high number of issues can also be good to prioritize. If you have analytics integration, you can also prioritize your efforts on PDFs that have had a lot of traffic.
Clicking on a PDF link will take you to a document report for that specific PDF, which gives you an overview of all issues present. Where possible, it will highlight the individual issues on the actual page.

You are given a help text on what each issue entails and suggestions on how to fix it. Remember that fixing PDF issues will need to occur in a program like Adobe Acrobat and then reuploaded.

Once you start fixing issues, run a crawl of an affected page to check if the issue is fixed. When you are done for the day, it is recommended to order a crawl of the website to ensure you have fresh results when you come back. A crawl can be ordered from the bottom of the front accessibility page.
Creating a Printable Report & Email Reports
Most overviews are exportable and can be added to a printable report or to a spreadsheet file. You can also choose to send a report with specific components to any given user after each crawl.

Siteimprove transforms the way organizations manage and deliver their digital presence. With the Siteimprove Intelligence Platform, you gain complete visibility and deep insights into what matters, empowering you and your team to outperform the status quo with certainty every day. With a worldwide customer base of more than 5,000 customers, Siteimprove serves dozens of markets from offices in Amsterdam, Berlin, Copenhagen, London, Minneapolis, Oslo, Sydney, Toronto, and Vienna.

To learn more, visit siteimprove.com

Act With Digital Certainty
Siteimprove transforms the way organizations manage and deliver their digital presence. With the Siteimprove Intelligence Platform, you gain complete visibility and deep insights into what matters, empowering you and your team to outperform the status quo with certainty every day.

siteimprove.com