

# Demystifying accessibility

Why you need to create an inclusive  
Sitecore experience and how to get started

**durable**

Angela Wolak  
5 November 2019

**HUMAN CONNECTIONS  
IN A DIGITAL WORLD**





Lucy | Blind

“You’re clicking on something that says, ‘graphic graphic graphic,’ or some numbered file name, or some gibberish like that.”



“Green and red look the same to me—it’s frustrating when designers use them to mean the exact opposite of each other.”



“I can look up a video about concealers and somehow the automatic closed captioning will be talking about zebras.”



Justin | Vestibular disorder

“These animations are literally making me nauseous and giving me a headache.”

Why?



**Steven | Compliance officer**

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“Our primary objective is to  
avoid getting sued.”



**Jill | Account manager**

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“We make accessible sites for our government assignments, or if a client specifically requires it.”





Chris | QA developer

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“We’ve tested our site using a screen reader, so we know it’s accessible.”



Leigh | Content strategist

“It doesn’t really affect me—  
aside from writing alt text,  
accessibility is handled by  
our developers.”

Accessibility is everyone's job

—


It requires ongoing effort

—

Strategies to help you create a better  
experience for disabled people  
(and everyone else, too)

Websites  
**designed, written  
and developed**  
so that people  
with disabilities  
can use them





How do we  
know if a site is  
accessible?

# WCAG 2.1

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The standard for  
creating and evaluating  
accessible web sites



**Web  
Content  
Accessibility  
Guidelines**

# Perceivable



Alternative text  
for images

# Operable

# Understandable



Logically sequenced  
content

# Robust

**Perceivable**

**Operable**

**Understandable**

**Robust**



Controls for moving content



Multiple ways to navigate



**Perceivable**

**Operable**

**Understandable**

**Robust**



Writing in clear,  
simple language



Appropriate error  
messages

**Perceivable**



Valid markup

**Operable**

**Understandable**



Correctly labeled  
names and roles of  
interface components

**Robust**

# Checking for accessibility



# Navigate using the keyboard

Can you accomplish the task you set out to do?

The screenshot shows a web browser window with the LOFT website. The browser's address bar displays 'loft.com'. The website header includes the LOFT logo, navigation links for 'Stores', 'Credit Cards', 'Sign In', 'Wishlist', 'Bag (0)', and 'Search'. A promotional banner at the top offers '\$20 LOFT Cash! Learn More >'. A central pop-up window is overlaid on the page, featuring the LOFT logo and the text 'WE'RE GIVING YOU 30% OFF\* YOUR FULL-PRICE PURCHASE'. Below this text is a small image of a person wearing red pants. The pop-up contains two input fields: one for 'Email address' and a button labeled 'GET MY 30% OFF'. A second button, 'I PREFER TO PAY FULL PRICE', is also present. At the bottom of the pop-up, it states 'VALID IN US ONLY | EXCLUSIONS APPLY'. The background of the website is dimmed, showing a '40%' sale banner and a 'RECOMMENDED FOR YOU' section.

# Navigate using the keyboard

Can you accomplish the task you set out to do?

Are focus states clearly indicated?

Is the order logical?

The screenshot shows the WSJ website with a red box highlighting the article "Hurricane Dorian Whips Puerto Rico, Virgin Islands". The article text reads: "Puerto Rico and the U.S. and British Virgin Islands were lashed with heavy rains and high winds as Hurricane Dorian tested the region two years after Maria wreaked historic devastation." Below the article is a sub-headline "Johnson Moves to Suspend Parliament to Push Through Brexit" with a small photo of Boris Johnson. To the right, there is a bar chart titled "Change in share price, one year after deal completion" showing values for Bayer-Monsanto (-46.56%), Bank of America-Countrywide (-44.56%), Alcatel-Lucent (-39.01), AOL-Time Warner (-37.22), Sprint-Nextel (-29.93), and Chrysler-Daimler (2.20). Further right is a table of market indices and a line chart for the DJIA.

Index	Value	Change	% Change
DJIA	26036.10	258.20	1.00%
S&P 500	2887.94	18.78	0.65%
Nasdaq	7856.88	29.94	0.38%
Russell 2000	1472.71	16.67	1.14%
DJ Total Mkt	29570.69	195.86	0.67%

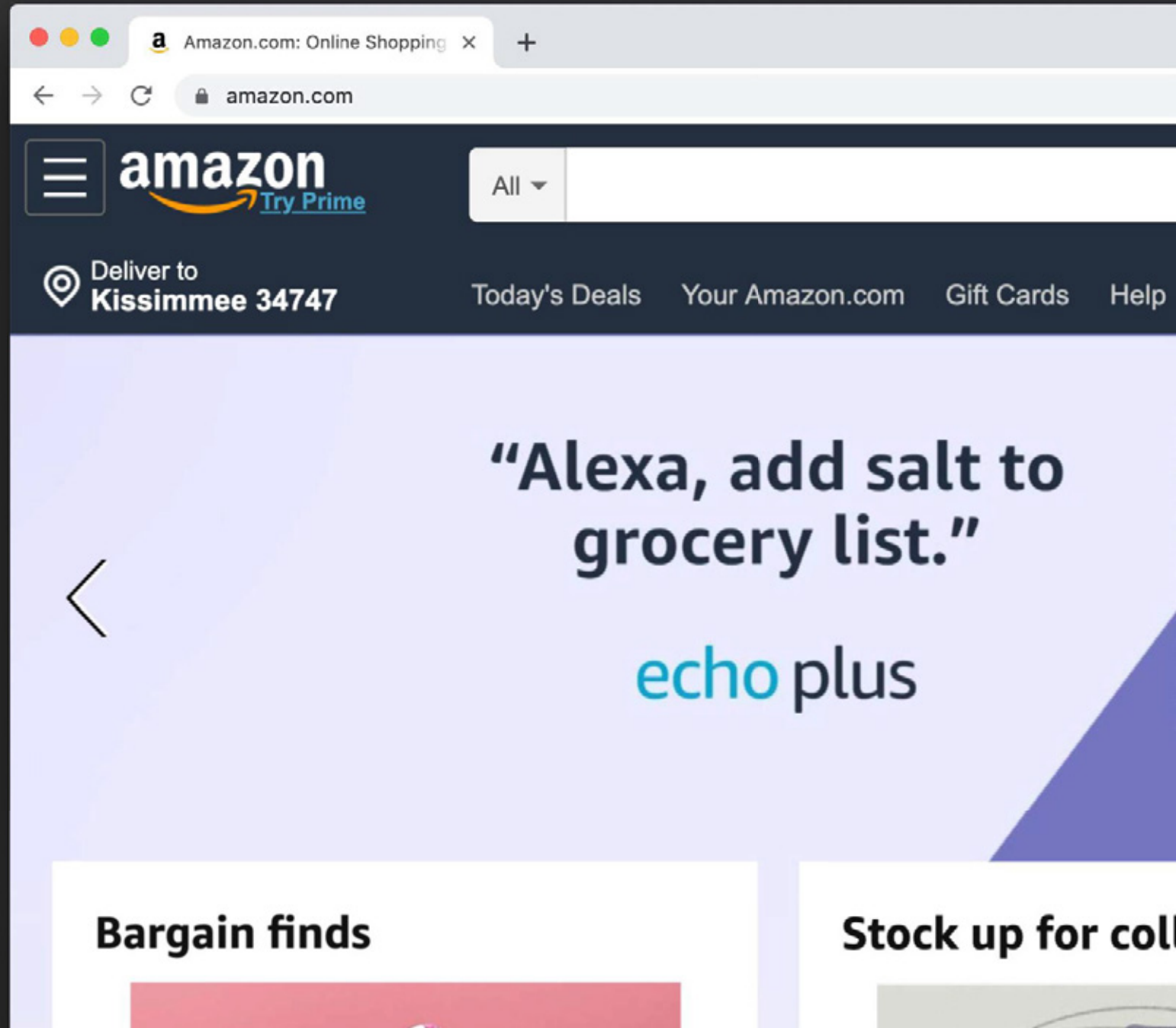
# Navigate using the keyboard

Can you accomplish the task you set out to do?

Are focus states clearly indicated?

Is the order logical?

Can you skip navigation?

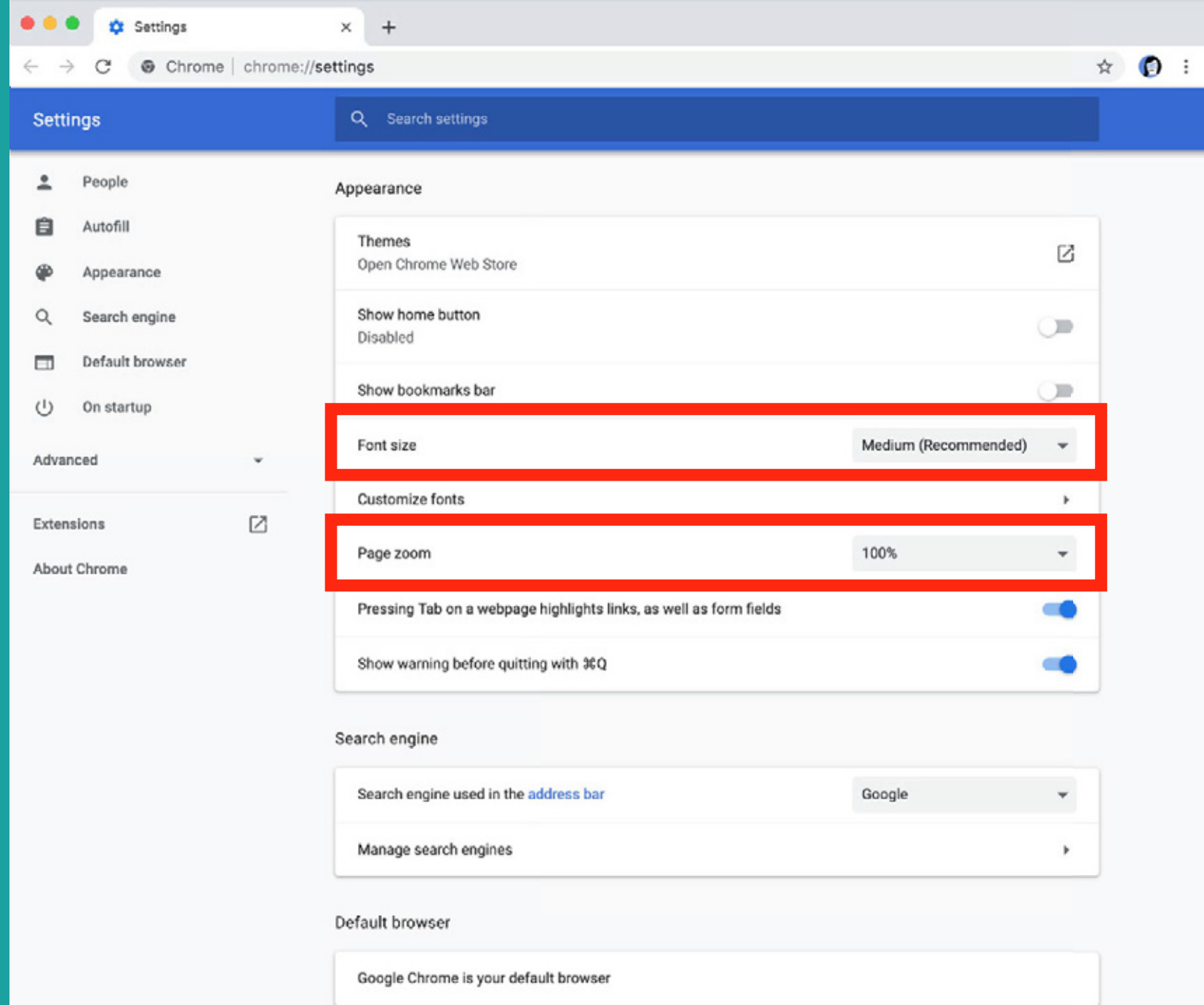


# Change your browser font size or zoom defaults

Do the fonts change size?

Does it break the layout of the site?

Is horizontal scrolling required?





# Change your browser font size or zoom defaults

Do the fonts change size?

Does it break the layout of the site?

Is horizontal scrolling required?

## DEFAULT VIEW

The screenshot shows a Google search for the term "accessibility". The search bar at the top contains the word "accessibility" and shows a search count of "About 6,270,000,000 results (0.53 seconds)". Below the search bar are navigation links for "All", "News", "Books", "Images", "Videos", "More", "Settings", and "Tools".

The main search results area features a featured snippet for "Accessibility - Wikipedia". The snippet text reads: "The concept focuses on enabling access for people with disabilities, or special needs, or enabling access through the use of assistive technology; however, research and development in **accessibility** brings benefits to everyone." To the right of this text is a small image of a blue circuit board with the word "ACCESSIBILITY" in the center. Below the snippet is the link "Accessibility - Wikipedia" with the URL "https://en.wikipedia.org > wiki > Accessibility".

Below the featured snippet is a "People also ask" section with four questions, each with a dropdown arrow: "What are the four major categories of accessibility?", "What are the types of accessibility?", "What is accessibility requirements?", and "What is web accessibility and why is it important?".

Below the "People also ask" section are three search results:

- Accessibility - Wikipedia**  
https://en.wikipedia.org > wiki > Accessibility  
The concept focuses on enabling access for people with disabilities, or special needs, or enabling access through the use of assistive technology; however, research and development in accessibility brings benefits to everyone.  
Web accessibility · Accessibility · Computer accessibility
- Accessibility - W3C - World Wide Web Consortium**  
https://www.w3.org > standards > webdesign > accessibility  
Accessibility is essential for developers and organizations that want to create high quality websites and web tools, and not exclude people from using their ...  
W3C accessibility guidelines · Easy Checks – A First Review
- Introduction to Web Accessibility | Web Accessibility Initiative (WA...**  
https://www.w3.org > WAI > fundamentals > accessibility-intro  
What is Web Accessibility. Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them. More specifically, people can: perceive, understand, navigate, and interact with the Web.  
Accessibility in Context · What is Web Accessibility · Making the Web Accessible

On the right side of the search results, there is a "See results about" section with a sub-heading "Web accessibility (Type of software)" and a brief description: "In human-computer interaction, computer accessibility refers to the accessibility of a ...". To the right of this text is a small image of a person's head with a checkmark, representing the Web Accessibility Initiative.



# Change your browser font size or zoom defaults

Do the fonts change size?

Does it break the layout of the site?

Is horizontal scrolling required?

## FONT SET TO "VERY LARGE"

The screenshot shows a Google search for the word "accessibility". The search results are displayed in a large font size. The top result is a Wikipedia entry titled "Accessibility - Wikipedia" with the URL <https://en.wikipedia.org/wiki/Accessibility>. The snippet reads: "The concept focuses on enabling access for people with disabilities, or special needs, or enabling access through the use of assistive technology; however, research and development in **accessibility** brings benefits to everyone." To the right of the snippet is a small image of a blue circuit board with the word "ACCESSIBILITY" in the center. Below the snippet are links for "About Featured Snippets" and "Feedback".

Below the featured snippet is a "People also ask" section with four questions, each with a dropdown arrow:

- What are the four major categories of accessibility?
- What are the types of accessibility?
- What is accessibility requirements?
- What is web accessibility and why is it important?

Below the "People also ask" section is another "Accessibility - Wikipedia" result with the URL <https://en.wikipedia.org/wiki/Accessibility>. The snippet reads: "The concept focuses on enabling access for people with disabilities, or special needs, or enabling access through the use of assistive technology; however, research and development in accessibility brings benefits to everyone." Below the snippet are links for "Web accessibility", "Accessibility", and "Computer accessibility".

Below that is an "Accessibility - W3C - World Wide Web Consortium" result with the URL <https://www.w3.org/standards/webdesign/accessibility>. The snippet reads: "Accessibility is essential for developers and organizations that want to create high quality websites and web tools, and not exclude people from using their ...". Below the snippet are links for "W3C accessibility guidelines", "Easy Checks", and "A First Review".

Below that is an "Introduction to Web Accessibility | Web Accessibility Initiative (WA..." result with the URL <https://www.w3.org/WAI/fundamentals/accessibility-intro>. The snippet reads: "What is Web Accessibility. Web accessibility means that websites, tools, and technologies are".

On the right side of the search results, there is a "See results about" section with a sub-heading "Web accessibility (Type of software)" and a snippet: "In human-computer interaction, computer accessibility refers to the accessibility of a ...". To the right of this section is a small image of a blue circuit board with the word "ACCESSIBILITY" in the center.

# Change your browser font size or zoom defaults

Do the fonts change size?

Does it break the layout of the site?

Is horizontal scrolling required?

ZOOM SET TO 200%

The screenshot shows a Google search interface with the search term 'accessibility' in the search bar. The search results show approximately 6,270,000,000 results in 0.53 seconds. A featured snippet from Wikipedia is displayed, defining accessibility as a concept for enabling access for people with disabilities or special needs through assistive technology. Below the snippet is a link to the Wikipedia page. To the right of the snippet is a thumbnail image from medium.com showing a computer monitor with the word 'ACCESSIBILITY' on it, surrounded by icons representing various accessibility features like a person with a white cane, a person with a hearing aid, and a person with a wheelchair. Below the featured snippet is a section titled 'People also ask' with two questions: 'What are the four major categories of accessibility?' and 'What are the types of accessibility?'. The Google logo is visible in the top left corner, and navigation links for 'All', 'News', 'Books', 'Images', 'Videos', and 'More' are in the top right. A 'Settings' link is also present.

Google accessibility

All News Books Images Videos More Settings

About 6,270,000,000 results (0.53 seconds)

The concept focuses on enabling access for people with disabilities, or special needs, or enabling access through the use of assistive technology; however, research and development in **accessibility** brings benefits to everyone.

[Accessibility - Wikipedia](https://en.wikipedia.org/wiki/Accessibility)  
<https://en.wikipedia.org/wiki/Accessibility>

medium.com

About Featured Snippets

People also ask

What are the four major categories of accessibility?

What are the types of accessibility?

Change your browser font size or zoom defaults

Do the fonts change size?

Does it break the layout of the site?

Is horizontal scrolling required?

DEFAULT VIEW

The screenshot displays the front page of The New York Times website. At the top, there is a navigation bar with the site's name, language options (English, Español, 中文), and a 'SUBSCRIBE NOW' button. Below this is a secondary navigation bar with categories like World, U.S., Politics, N.Y., Business, Opinion, Tech, Science, Health, Sports, Arts, Books, Style, Food, Travel, Magazine, T Magazine, Real Estate, and Video. The main content area features several articles. The largest article is 'At G7 Meeting, Trump Offers Contradictory Signals on China', accompanied by a photo of world leaders. Other articles include 'Iranian Official Makes Surprise Appearance', 'Prime Minister Boris Johnson of Britain won approval from Mr. Trump', 'How American Gun Laws Are Fueling a Homicide Crisis Abroad', 'Trump Allies Target Journalists Over Coverage Deemed Hostile to White House', 'How Elizabeth Warren Went From Pro-Business to Consumer Advocate', 'The Surprising Path That Some Kids Take to the Ivy League', 'Dating While Dying', 'Seattle Has Figured Out How to End the War on Drugs', 'Blame Economists for the Mess We're In', 'The Amazon Is at the Mercy of the Pettiest Man', and 'A Child Bumps Her Head. What Happens Next Depends on Race.' The page also includes a 'Your Weekend Briefing' section and an 'Editors' Picks' section at the bottom.



# Change your browser font size or zoom defaults

Do the fonts change size?

Does it break the layout of the site?

Is horizontal scrolling required?

FONT SET TO "VERY LARGE"

The screenshot shows the New York Times homepage with a significantly increased font size. At the top, the navigation bar includes the site's name, language options (English, Español, 中文), and a 'SUBSCRIBE NOW' button. The main headline is 'At G7 Meeting, Trump Offers Contradictory Signals on China', accompanied by a photo of world leaders. Other articles include 'Iranian Official Makes Surprise Appearance', 'Prime Minister Boris Johnson of Britain won approval from Mr. Trump...', 'Opinion: The Surprising Path That Some Kids Take to the Ivy League', and 'How American Gun Laws Are...'. The layout is clean but the text is much larger than standard, affecting the overall appearance and readability.

# Change your browser font size or zoom defaults

Do the fonts change size?

Does it break the layout of the site?

Is horizontal scrolling required?





# Check video and audio files

Are there captions?

Transcripts?

Audio descriptions?



**VO: The first year of life can  
be tricky for everyone.**

**ANIMAL BABIES: FIRST YEAR ON EARTH**

Preview



# How to convince your team that it's worth it



**For many  
organizations,  
it's a legal  
requirement**





**A company's  
digital presence  
should reflect  
its brand values**



diversity and inclusion policy

 All

 News

 Images

 Videos

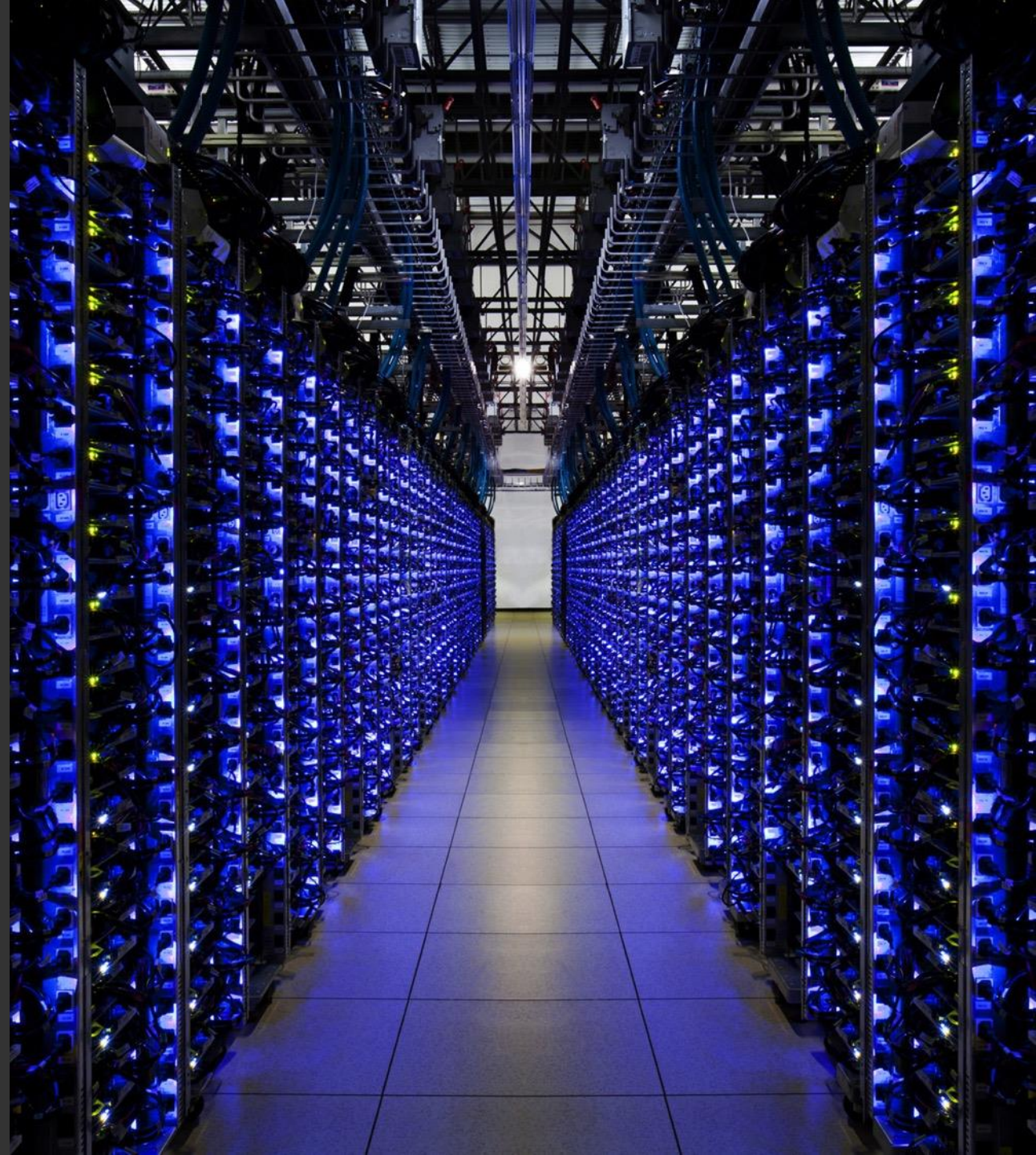
About 244,000,000 results (0.71 seconds)

**It's too large  
an audience  
to ignore**





**Machines also  
like content  
developed for  
accessibility**





**Designing  
for edge  
cases helps  
everyone**

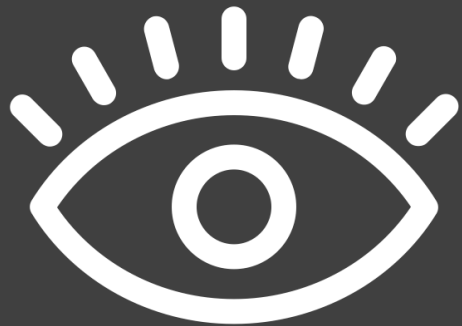


# Sufficient color contrast

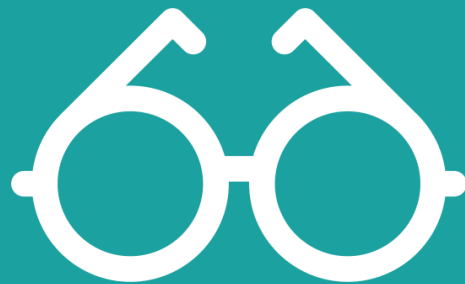
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Helps users who:

**Have a vision  
impairment**



**Forgot their  
reading glasses**



**Are outdoors in  
bright sunlight**



# Video captions

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Help users who:

**Have a hearing  
impairment**



**Watch videos in  
public spaces**



**Are learning the  
language**



# Keyboard navigability

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Helps users who:

**Have a physical  
or visual  
impairment**



**Have a  
temporary injury**



**Are efficient  
“power users”**





**It's  
professional  
best practice**





# Potential pitfalls— and how to avoid them



The challenge



**Design,  
development,  
and content  
teams all  
contribute to  
accessibility**

## EXAMPLE SCENARIO:

Your organization wants to launch a podcast series and have a customized audio player on your site.



# Design

Include accessibility features in the design and user stories



Ensure sufficient color contrast



Provide visible focus states

### EXAMPLE SCENARIO:

Your organization wants to launch a podcast series and have a customized audio player on your site.



# Development

Write valid, semantic code where all UI controls are correctly labeled with names, roles, and values

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Provide logical keyboard navigation with no “keyboard traps”



### EXAMPLE SCENARIO:

Your organization wants to launch a podcast series and have a customized audio player on your site.



## Content

Provide complete, accurate transcripts for all episodes



Minimize background noise in the recording



**Distributed  
responsibility  
creates real  
challenges**



**Must be considered  
at every step**



**Requirements can easily  
be missed**



**Collaboration across  
departments can be difficult**



**...as well as managing the  
agency-to-client handoff**



6 factors for success

**Get support  
at the  
highest level**



**Identify a  
sponsor**



# Create a responsibility matrix



# A great starting point already exists

## W3C Accessibility Responsibility Breakdown

[bit.ly/a11y-matrix](https://bit.ly/a11y-matrix)

## VIEW BY ROLE

### Architecture

The architecture function covers tasks and related quality control normally associated with the architecture of the information (Web content) and the architecture of the data.

Principles	Applicable Success Criteria		
	A	AA	AAA
Perceivable	<a href="#">1.3.1</a>	--	--
Operable	<a href="#">2.4.2</a>	<a href="#">2.4.5</a> , <a href="#">2.4.6</a>	<a href="#">2.4.8</a> , <a href="#">2.4.10</a>
Understandable	--	<a href="#">3.1.2</a>	<a href="#">3.1.3</a> , <a href="#">3.1.4</a>
Robust	--	--	--
<b>Total (9)</b>	<b>2</b>	<b>3</b>	<b>4</b>

### Interaction Design / Usability

The interaction design / usability function covers tasks and related quality control normally associated with the planning of web interfaces, content changes, interactivity and other interface-related contents of the pages.

Principles	Applicable Success Criteria		
	A	AA	AAA
Perceivable	<a href="#">1.3.1</a> , <a href="#">1.3.3</a> , <a href="#">1.4.1</a> , <a href="#">1.4.2</a>	<a href="#">1.4.4</a>	<a href="#">1.4.7</a> , <a href="#">1.4.8</a>
Operable	<a href="#">2.1.1</a> , <a href="#">2.1.2</a> , <a href="#">2.2.1</a> , <a href="#">2.2.2</a> , <a href="#">2.3.1</a> , <a href="#">2.4.4</a>	<a href="#">2.4.5</a> , <a href="#">2.4.6</a>	<a href="#">2.1.3</a> , <a href="#">2.2.3</a> , <a href="#">2.2.4</a> , <a href="#">2.2.5</a> , <a href="#">2.3.2</a> , <a href="#">2.4.8</a> , <a href="#">2.4.9</a>
Understandable	<a href="#">3.2.1</a> , <a href="#">3.2.2</a> , <a href="#">3.3.1</a> , <a href="#">3.3.2</a>	<a href="#">3.2.3</a> , <a href="#">3.2.4</a> , <a href="#">3.3.3</a> , <a href="#">3.3.4</a>	<a href="#">3.1.3</a> , <a href="#">3.1.5</a> , <a href="#">3.2.5</a> , <a href="#">3.3.5</a> , <a href="#">3.3.6</a>





**Change  
processes—  
gently!**



**Build  
knowledge**





# Accessibility champions

Jump to...

Threads

Shared Channels

Channels

# accessibility

# content-strategy

# design

# events

# general

# marketing

# random

# team-lunch

+ Add a channel

Direct Messages

Slackbot

Angela Wolak (you)

## #accessibility

☆ | 👤 8 | 📌 0 | ✎ Add a topic

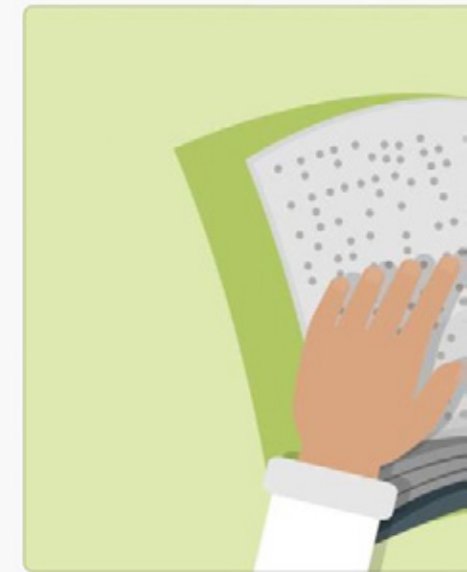
3:34 PM <https://www.levelaccess.co>  
[deaf-blind-people-use-tech](#)

**Level Access**

**Understanding Assistive  
Technology? - Level Acc**

Technology needs for de  
individual. Learn more ab

Aug 9th (270 kB) ▾





**Bottom-up approach**



**Fosters holistic thinking**



**A go-to resource**



**Enthusiasm > seniority**

# How to get started



Planning a new site

# Writing an RFP

Make accessibility a requirement



Know what's involved



Don't forget training and knowledge-sharing

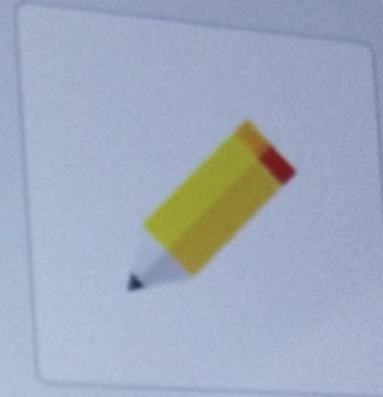


# Cost considerations

Starting with  
accessibility from  
the beginning will  
always be cheaper  
and easier than  
remediation

**Design the  
Sitecore editing  
experience  
to encourage  
ongoing  
accessibility**

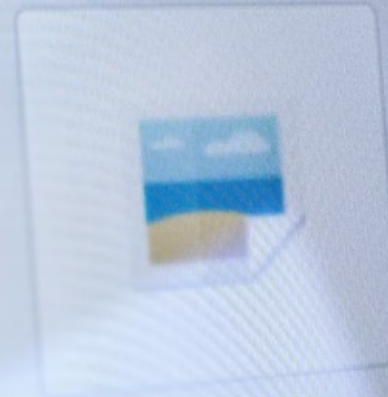
## Content Editing



Content Editor



Experience  
Editor



Media Library



Workbox



**Video players**



**Semantic headings**



**Long descriptions**



**Workflows and approvals**

Mitigating issues on  
your current site

**Conduct  
an audit**

Partner with a  
specialist if you're  
new to accessibility



# Roadmap a path forward

Location, frequency and severity of errors



Ease of fixing



Specific audience needs

# The future of accessibility



# Better testing tools

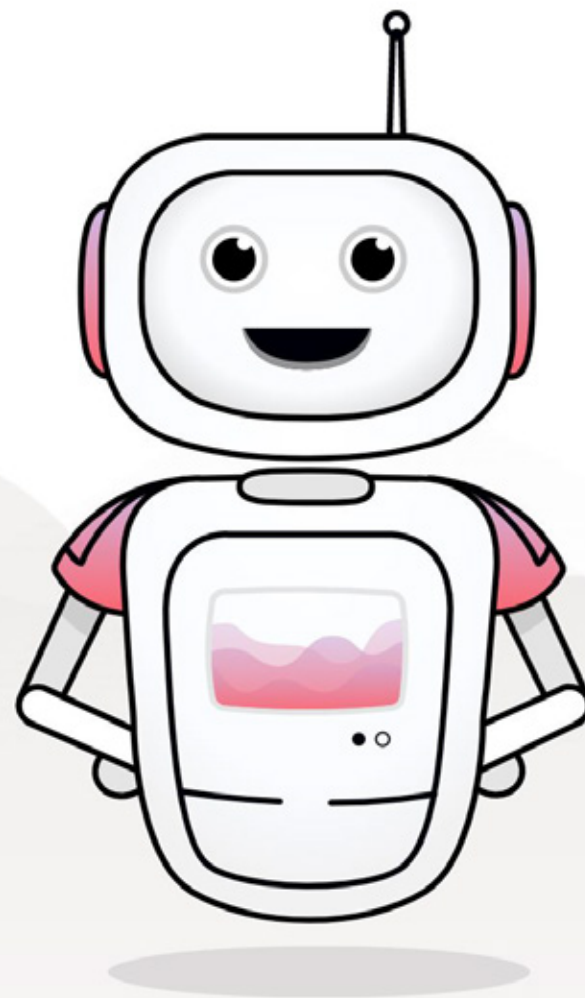
High-level indication  
and prediction



AI simulation of user  
navigation

**Mozilla's  
Common Voice  
project for  
open source  
speech  
recognition**

[voice.mozilla.org](https://voice.mozilla.org)



# Real-time remediation of issues

Correcting markup  
and styling



Content  
simplification



More resources  
[go.durabledigital.com/a11y](https://go.durabledigital.com/a11y)

Reach out on Twitter  
[@angelawolak](https://twitter.com/angelawolak)





# Thank you

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