

Beneath the Surface

How Web Design Impacts Your Site's Health

GEONETRIC®

What is design?

"Look and feel"



What is design?

“Look and feel” + how it’s made.



JavaScript
CSS
HTML
SVG
Foundation
Web Fonts
Haml
PNG
JQuery
Jasmine
Bootstrap
Angular
Backbone
React
Ember
SASS
LESS
Handlebars
Git
Bower

A faint, light gray molecular structure, resembling a protein or a complex organic molecule, is visible in the background of the slide. It consists of numerous small circles (atoms) connected by thin lines (bonds), forming a complex, branching network.

Who does “design”?



Who does “design”?
Design happens.

What are the impacts
of design choices?

Performance
+
Maintainability



What are the impacts of design choices?

Accessibility
Mobile UX
SEO
Maintainability



Accessibility



<https://www.geonetric.com/website-design/make-your-website-more-accessible/>

18.7% of Americans
have some type of disability



Accessibility

- Americans with Disabilities Act (ADA) prohibits discrimination on the basis of disability in places of public accommodation
- Section 1557 ties web accessibility to ACA
- Updated Section 508 rules in effect in January 2018



🕒 March 7, 2017 Share

WEBSITE DESIGN

Lawsuits Put Web Accessibility On The Agenda For Healthcare

Making your web properties available to all visitors is the right thing for your organization to do, particularly for healthcare organizations.

A class-action lawsuit against HCA in January, 2017 is only the latest in a growing list of actions taken by disability activists to make websites available and usable by everyone.

Legal actions against big brands has been a common tactic to raise awareness of the challenges of website accessibility and to encourage organizations to prioritize the costs and trade-offs of improved web accessibility. As far back as 2009, Target Corporation was sued for web accessibility. In more recent years, University of California, Berkeley and MIT have

Common design-related accessibility pitfalls

- Photo sliders and carousels



Common design-related accessibility pitfalls

- Photo sliders and carousels
- Hidden content and menus

Collapsible Group Item #1

Collapsible Group Item #2

Anim pariatur cliche reprehenderit, enim eiusmod high life accusamus terry richardson ad squid. 3 wolf moon officia aute, non cupidatat skateboard dolor brunch. Food truck quinoa nesciunt laborum eiusmod. Brunch 3 wolf moon tempor, sunt aliqua put a bird on it squid single-origin coffee nulla assumenda shoreditch et. Nihil anim keffiyeh helvetica, craft beer labore wes anderson cred nesciunt sapiente ea proident. Ad vegan excepteur butcher vice lomo. Leggings occaecat craft beer farm-to-table, raw denim aesthetic synth nesciunt you probably haven't heard of them accusamus labore sustainable VHS.

Collapsible Group Item #3

Common design-related accessibility pitfalls

- Photo sliders and carousels
- Hidden content and menus
- Lack of keyboard accessibility and visible focus



Common design-related accessibility pitfalls

- Photo sliders and carousels
- Hidden content and menus
- Lack of keyboard accessibility and visible focus
- Lack of bypass blocks



Running a high-level accessibility test

WAVE Report of Health: X

wave.webaim.org/report#/www.geonetric.com/content-strategy

WAVE web accessibility evaluation tool

www.geonetric.com/content-strategy

Styles No Styles Contrast

Summary

WAVE has detected the following:

- 3 Errors
- 11 Alerts
- 19 Features
- 25 Structural Elements
- 25 HTML5 and ARIA
- 4 Contrast Errors

Panel Options

- DETAILS: A listing of all the WAVE icons in your page.
- DOCUMENTATION: Explanation of the WAVE icons and how you can make your page more accessible.
- OUTLINE: The heading structure of the web page.

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Work Services Ideas

aria-expanded="false"

Content Strategy

Align content with your hospital's goals and your patients' needs.

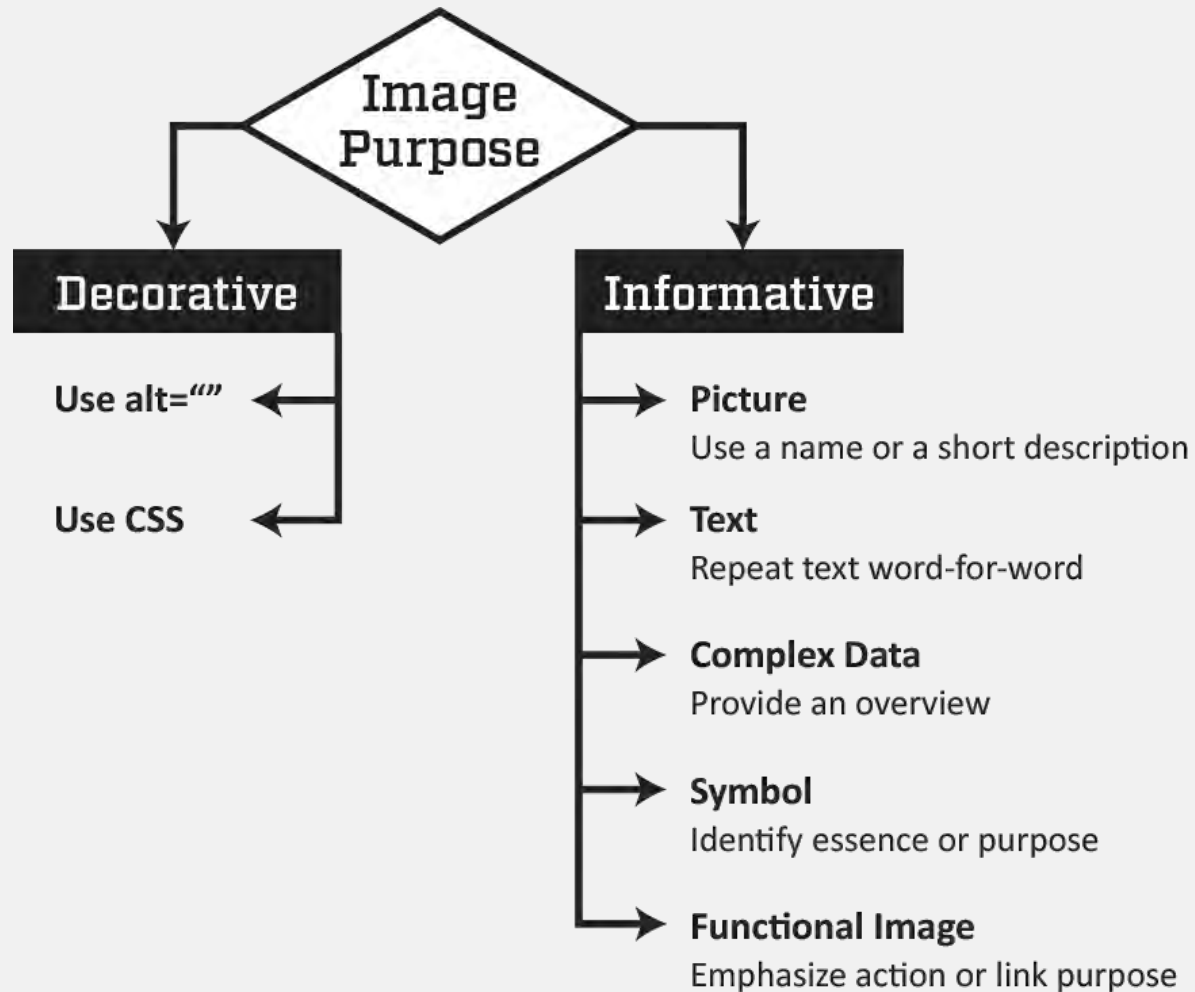
h? Contact Us

Developing a Content Strategy

Presenting your site content in a way that clearly and intuitively reflects consumer objectives helps build loyalty and creates measurable opportunities for ROI. But bringing order to hundreds of pages of content

A person with dark hair, seen from the back, is wearing large, black over-ear headphones. They are looking at a computer monitor that displays a 3D architectural rendering of a building with a green roof and white walls. To the right, another monitor is partially visible, showing a colorful, abstract pattern. The scene is dimly lit, with the primary light source being the computer screens.

Provide text alternatives —
“alt text” and beyond



Writing alt text

Should I describe what this image *is*, or what it *does*?

Check for color contrast

Colour Contrast Check - x

Secure | https://snook.ca/technical/colour_contrast/colour.html#fg=696969,bg=DDDDDD

snook.ca

Colour Contrast Check

Date created: January 11, 2005
Date last modified: January 11, 2015

Foreground Colour:

#696969

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Background Colour:

#DDDDDD

Red:

Green:

Blue:

Hue (°):

Saturation (%):

Value (%):

Results

This is example text. **Some of it bolded.**
Some of it italicized.

Brightness Difference: (≥ 125)	116
Colour Difference: (≥ 500)	348
Are colours compliant?	NO
Contrast Ratio	4.04
WCAG 2 AA Compliant	NO
WCAG 2 AA Compliant (18pt+)	YES
WCAG 2 AAA Compliant	NO
WCAG 2 AAA Compliant (18pt+)	NO

Description

The Colour Contrast Check Tool allows to specify a foreground and a background colour and determine if they provide enough of a contrast "when viewed by someone having color deficits or when viewed on a black and white screen"[\[W3C\]](#).

The tool will indicate that the colours pass the test if both the colour difference and the brightness difference exceed their threshold. It will indicate that it sort of passes if only one of the two values exceed their threshold. And finally, it'll fail to pass if neither value exceeds its threshold.

The tool will also indicate if the colours pass the newer [WCAG 2.0 contrast ratio formula](#). The WCAG 2.0 formula differentiates between text smaller than 18pt text larger than 18pt (or text that is bold and larger than 14pt). For AA compliance, text should have a ratio of at least 4.5:1 (larger text, at least 3:1). For AAA compliance, text should have a ratio of at least 7:1 (larger text, at least 4.5:1).

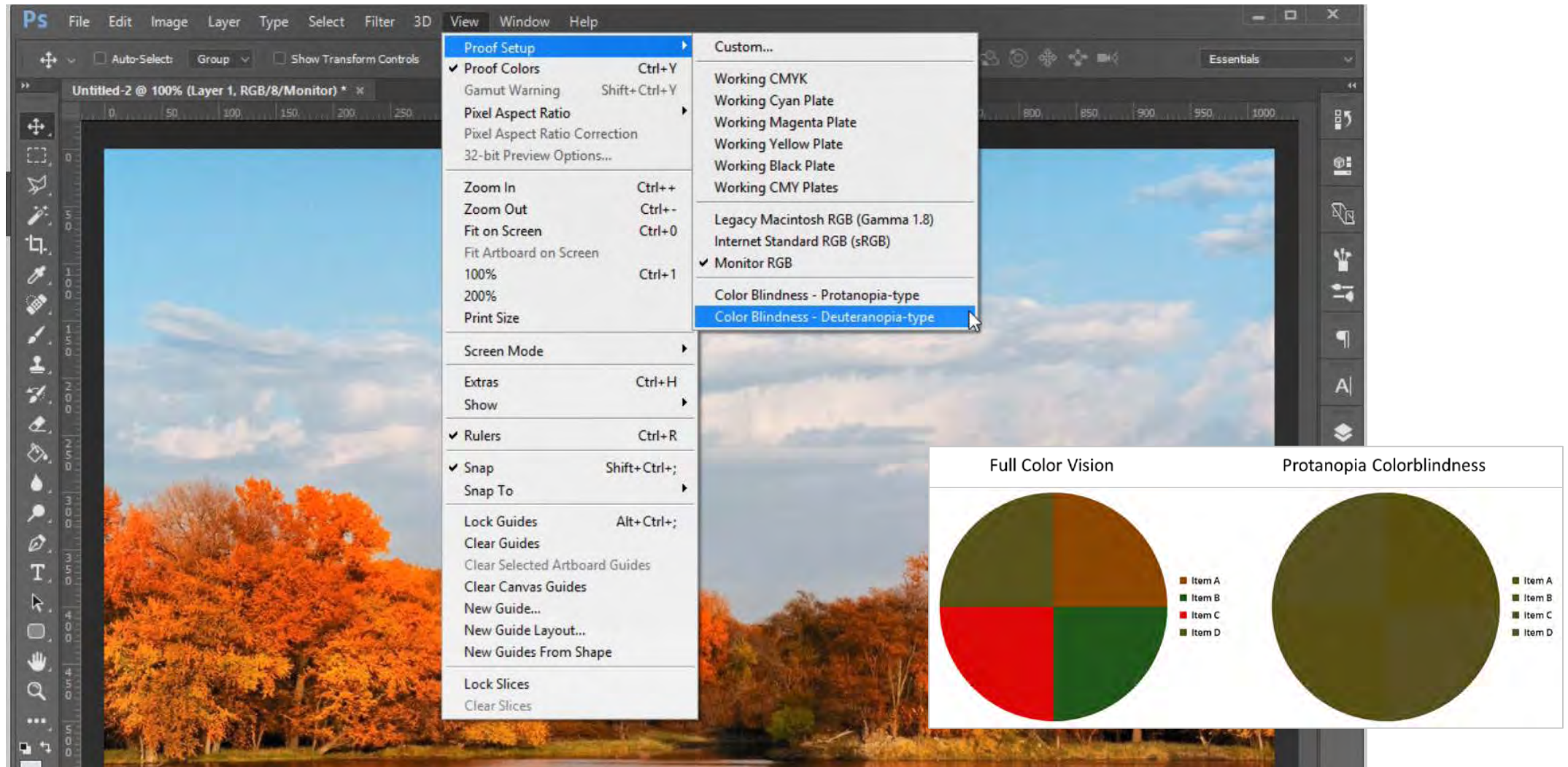
You can enter a three character value (eg: 036) and it'll automatically convert it to it's six character version

This text has **too much** contrast.
It is pure black text on a pure white background.

This text has the **most comfortable** contrast.
It is dark gray text on a very light gray background.

This text has **too low** contrast.
It is medium gray text on a gray background.

Test for colorblindness in Photoshop



What to do

For designers

- Incorporate accessibility tools and checkpoints into your workflow

For everyone

- Consider an accessibility audit to create a baseline, work plan, and ongoing management

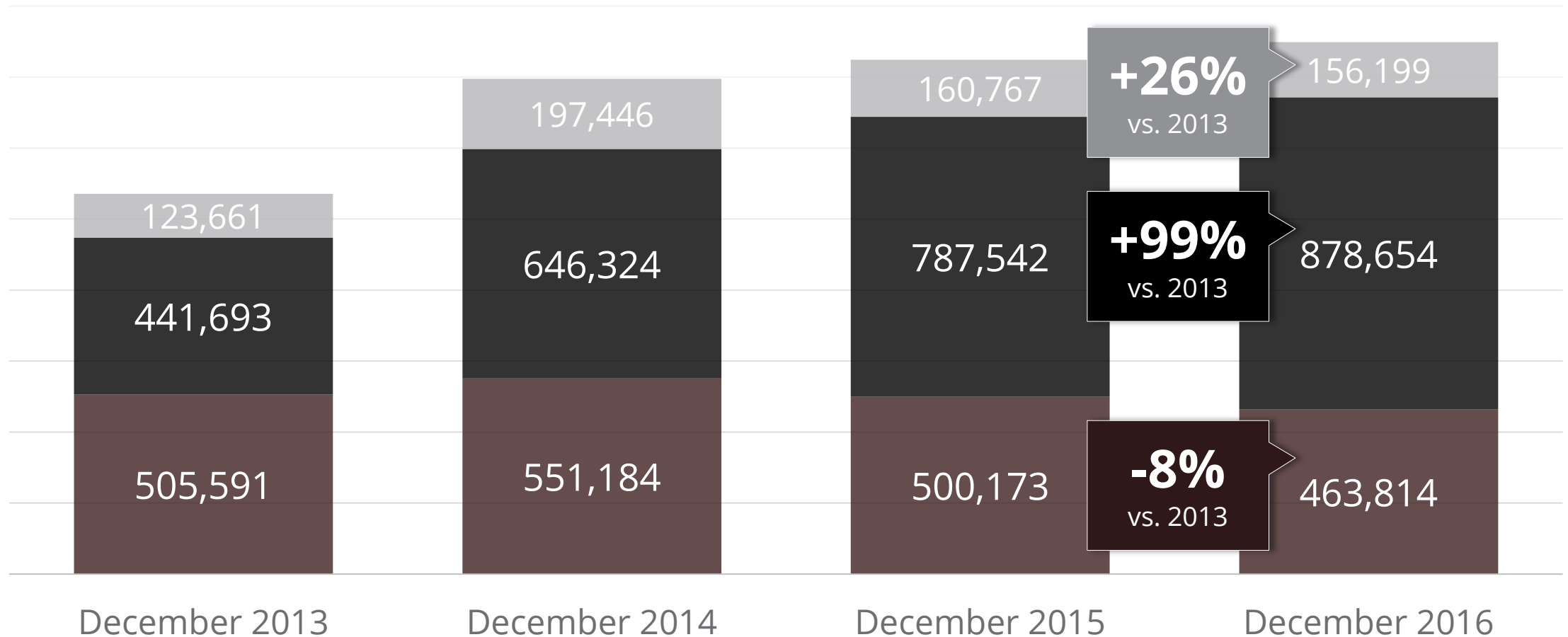
Mobile user experience



Beyond responsive
thinking mobile first.

Growth in digital media time spent in minutes (MM)

■ Desktop ■ Smartphone ■ Tablet



Mobile represents almost 7 in 10 digital media minutes

69% of digital time spent on mobile





“Mobile users are very goal-oriented. They expect to be able to get what they need, immediately, and on their own terms.”

— Google Research Study

Using web analytics to identify mobile issues

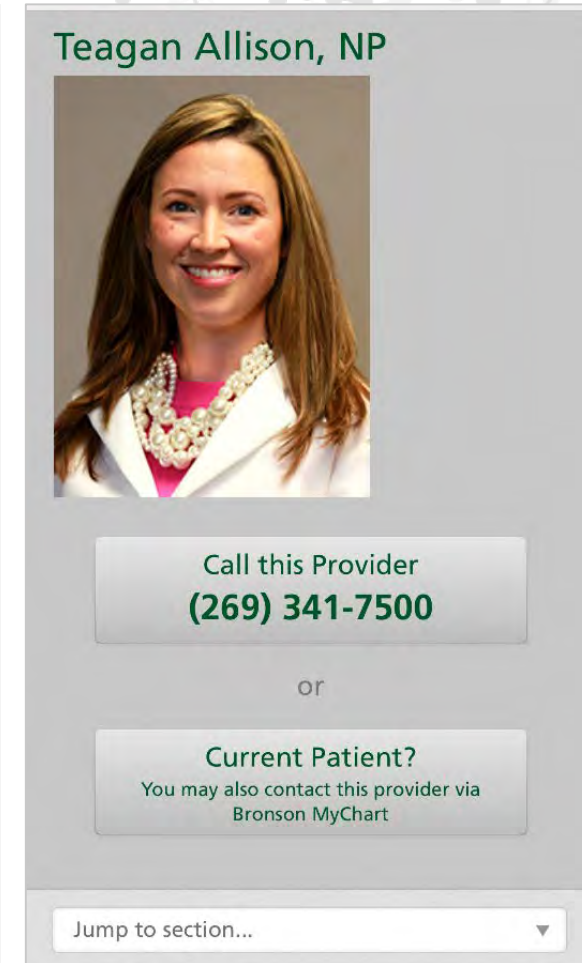
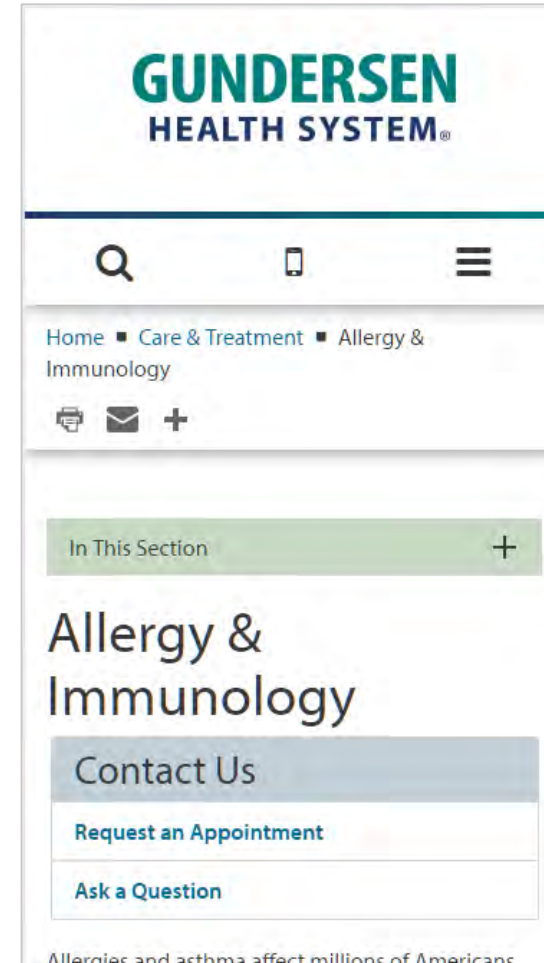
Symptoms of poor mobile user experience:

- Higher than average bounce rate — compare to desktop rates
- Average time on page is comparatively low
- Increased use of “lifelines” – contact us form, site search, pogosticking from search engines

Design for clarity and action

- Simplify navigation and menus
- Clickable phone numbers
- Short, simple forms
- Maps that work with native mapping apps
- Simple, clear instructions
- Above-the-fold calls to action

Tip: Identify and test page types with highest mobile traffic.



Setting mobile content priorities

The desktop view of the Gundersen Health System Allergy & Immunology page features a blue header with the logo and navigation links. A search bar and contact information are also present. The main content area is divided into several sections, with numbered callouts highlighting specific elements:

- Care & Treatment**: A green box highlighting the 'Care & Treatment' section.
- Allergy & Immunology**: A green box highlighting the 'Allergy & Immunology' section.
- Contact Us**: A green box highlighting the 'Contact Us' section.
- Conditions we treat**: A green box highlighting the 'Conditions we treat' section.
- Find Allergy & Immunology**: A green box highlighting the 'Find Allergy & Immunology' section.
- Related Health**: A green box highlighting the 'Related Health' section.

The mobile view of the Gundersen Health System Allergy & Immunology page features a white header with the logo and navigation links. A search bar and contact information are also present. The main content area is divided into several sections, with numbered callouts highlighting specific elements:

- In This Section**: A green box highlighting the 'In This Section' section.
- Allergy & Immunology**: A green box highlighting the 'Allergy & Immunology' section.
- Contact Us**: A green box highlighting the 'Contact Us' section.
- Allergies and asthma affect millions of Americans**: A green box highlighting the introductory paragraph.

Content length

Does mobile require shorter content?

Short-form and long-form measures

	# of articles	Total # of complete interactions	Average engaged time (in seconds)
Short-form	56,804	89,509,799	57
101-250	13,982	19,367,290	43
251-999	42,847	70,142,515	60
Long-form	18,011	27,562,137	123
1,000-4,999	17,470	26,208,589	116
5,000+	541	1,353,548	270

Source: Pew Research Center analysis of September 2015 Parse.ly anonymized data of digital news publishers.

"Long-form Reading Shows Signs of Life in Our Mobile News World"

PEW RESEARCH CENTER

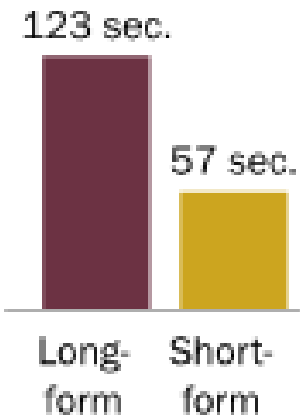
U.S. public show signs of engaging with long-form articles on cellphones



Within cellphone news habits ...

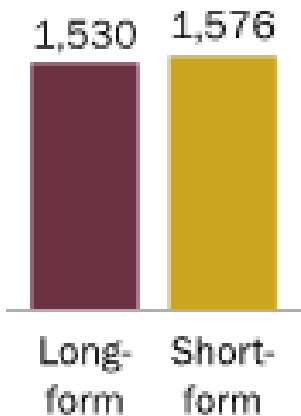
Long-form articles get more than **twice** the engaged time of short-form articles

Average engaged time across complete interactions



And they get **about the same number** of visitors

Average number of complete interactions per article



Google's Mobile-Friendly Test

Mobile-Friendly Test

Tested on: Apr 19, 2017 at 7:51 AM

Page is mobile-friendly

This page is easy to use on a mobile device

[SUBMIT TO GOOGLE](#)

Additional resources

- [Open site-wide mobile usability report](#)
- [Learn more about mobile-friendly pages](#)
- [Post comments or questions to our discussion group](#)

Privacy Policy Terms of Service

Window size: 1680 x 1050
Viewport size: 1664 x 957

Accessing tools within your browser

The screenshot shows the Chrome DevTools Overview page. On the left is a sidebar with links like 'Learn Basics', 'Overview', 'Development Workflow', 'Using the Console', 'Tips & Tricks', 'Additional Resources', 'Use Tools', 'Performance & Profiling', and 'Reference'. The main content area is titled 'Chrome DevTools Overview' and contains an introduction to DevTools, a note about moved docs, and a section 'Accessing the DevTools' which lists steps to open DevTools and provides keyboard shortcuts. A 'The DevTools window' section is partially visible at the bottom.

Callouts from the right side of the image point to specific actions:

- A callout pointing to the Chrome menu icon (three horizontal lines) in the top right of the browser window contains the text: **View page source** (Ctrl+U) and **Inspect** (Ctrl+Shift+I).
- A callout pointing to the 'Inspect Element' button in the DevTools toolbar contains the text: **View Page Info**, **Inspect Element (Q)**, and **Convert Web Page to Adobe PDF...**.

Using Chrome's mobile toolbar

The image shows a Chrome browser window with the DevTools interface. The mobile toolbar is open, showing a list of devices. The website being viewed is "www.geonetric.com/seo/guide-healthcare-marketers/". The network panel is open, showing a list of resources. A red circle highlights the "Elements" panel. A red box highlights the "No throttling" dropdown menu.

Mobile Toolbar:

- Responsive
- Galaxy S5
- Nexus 5X
- Nexus 6P
- iPhone 5
- ✓ iPhone 6
- iPhone 6 Plus
- iPad
- iPad Pro
- Edit...

Website Preview:

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April 11, 2017 Share

SEARCH ENGINE OPTIMIZATION

SEO for Healthcare: 10 Ways to Reach Healthcare Consumers Through Search

Learn how to be found in today's complex SEO landscape.

Share Contact Us

Network Panel:

Name	Status	Type	Initiator	Size	Time
fonts.js?ver=4.7.3	200	script	index	641 B	266 ms
cs-body.min.js?ver=1.3.3	200	script	index	24.3 KB	282 ms
core.min.js?ver=1.11.4	200	script	index	2.1 KB	282 ms
widget.min.js?ver=1.11.4	200	script	index	3.0 KB	282 ms
accordion.min.js?ver=1.11.4	200	script	index	3.2 KB	282 ms
tabs.min.js?ver=1.11.4	200	script	index	4.6 KB	289 ms
squellch-tabs-and-accordion...	200	script	index	8.8 KB	289 ms
wp-embed.min.js?ver=4.7.3	200	script	index	992 B	287 ms
ts.js	200	script	index	16.6 KB	51 ms
domReady.js	200	xhr	require-config...	(from d...	10 ms
wp-emoji-release.min.js?ver...	200	script	index39	4.8 KB	209 ms
gtm.js?id=GTM-KZ6M5V8	200	script	index49	20.1 KB	60 ms
64017d81-9430-4c8a-8219-...	200	font	index	15.3 KB	43 ms
ae47a7f5-89da-4879-b934-2...	200	font	index	14.8 KB	76 ms
time.png	200	png	cgform.iquery...	1.4 KB	43 ms
RobotoSlab-Light.ttf	200	font	cgform.iquery...	175 KB	100 ms
share.png	200	png	cgform.iquery...	1.3 KB	110 ms
d9fed1ee-4904-4a11-ba11-b...	200	font	cgform.iquery...	15.2 KB	108 ms
mtiFontTrackingCode.js	200	script	fonts.js?ver=4...	878 B	43 ms
tsr.js?ac=akiQ1o4NZcCDYV...	200	script	ts.js?77	348 B	147 ms
RobotoSlab-Regular.ttf	200	font	iquery.js?ver=...	166 KB	112 ms
contact.png	200	png	iquery.js?ver=...	1.4 KB	111 ms
PatternList.js?callback=JQuer...	200	script	cgform.iquery...	887 B	13 ms
1.css?apiType=css&projectid...	200	stylesheet	VM581:1	91 B	13 ms
analytics.js	200	script	gtm.js?id=GT...	11.9 KB	24 ms
uwt.js	200	script	gtm.js?id=GT...	2.5 KB	14 ms
tpc-check.html	(cancel...	document	buffer-ipc-che...	0 B	67 ms
buffer-hover-icon@1x.png	200	png	analytics.js35	(from d...	2 ms
collect?v=1&_vjs1da=165...	200	gif	Other	63 B	23 ms
adscTp_id=Twitter&o_user...	200	gif	Other	169 B	69 ms
adscTp_id=Twitter&o_user...	200	script	uwt.js:1	254 B	80 ms
favicon-16x16.png	200	png	Other	638 B	41 ms
icon_19.png	200	png	iquery.js3	(from d...	2 ms
icon_19x2.png	200	png	Other	(from d...	3 ms

70 requests | 1.1 MB transferred | Finish: 10.16 s | DOMContentLoaded: 2.00 s | Load: 3.03 s

Throttling Menu:

- No throttling
- Disabled
- No throttling
- Presets
- Offline (0ms, 0kb/s, 0kb/s)
- GPRS (500ms, 50kb/s, 20kb/s)
- Regular 2G (300ms, 250kb/s, 50kb/s)
- Good 2G (150ms, 450kb/s, 150kb/s)
- Regular 3G (100ms, 750kb/s, 250kb/s)
- Good 3G (40ms, 1.5Mb/s, 750kb/s)
- Regular 4G (20ms, 4.0Mb/s, 3.0Mb/s)
- DSL (5ms, 2.0Mb/s, 1.0Mb/s)
- WiFi (2ms, 30Mb/s, 15Mb/s)
- Custom
- Add...

What to do

For designers

- Spend more time with the non-desktop versions of your sites
- Look for ways to improve the clarity and focus of each page type or screen

For everyone

- Change your defaults – make a point of going to your mobile site first
- Be aware of how your role in the website impacts the mobile experience
- Identify opportunities to make small improvements

Search engine optimization



<https://www.geonetric.com/seo/reaching-healthcare-consumers/>

40% of people
abandon a website that takes longer than
three seconds to load

Page speed affects SEO in multiple ways

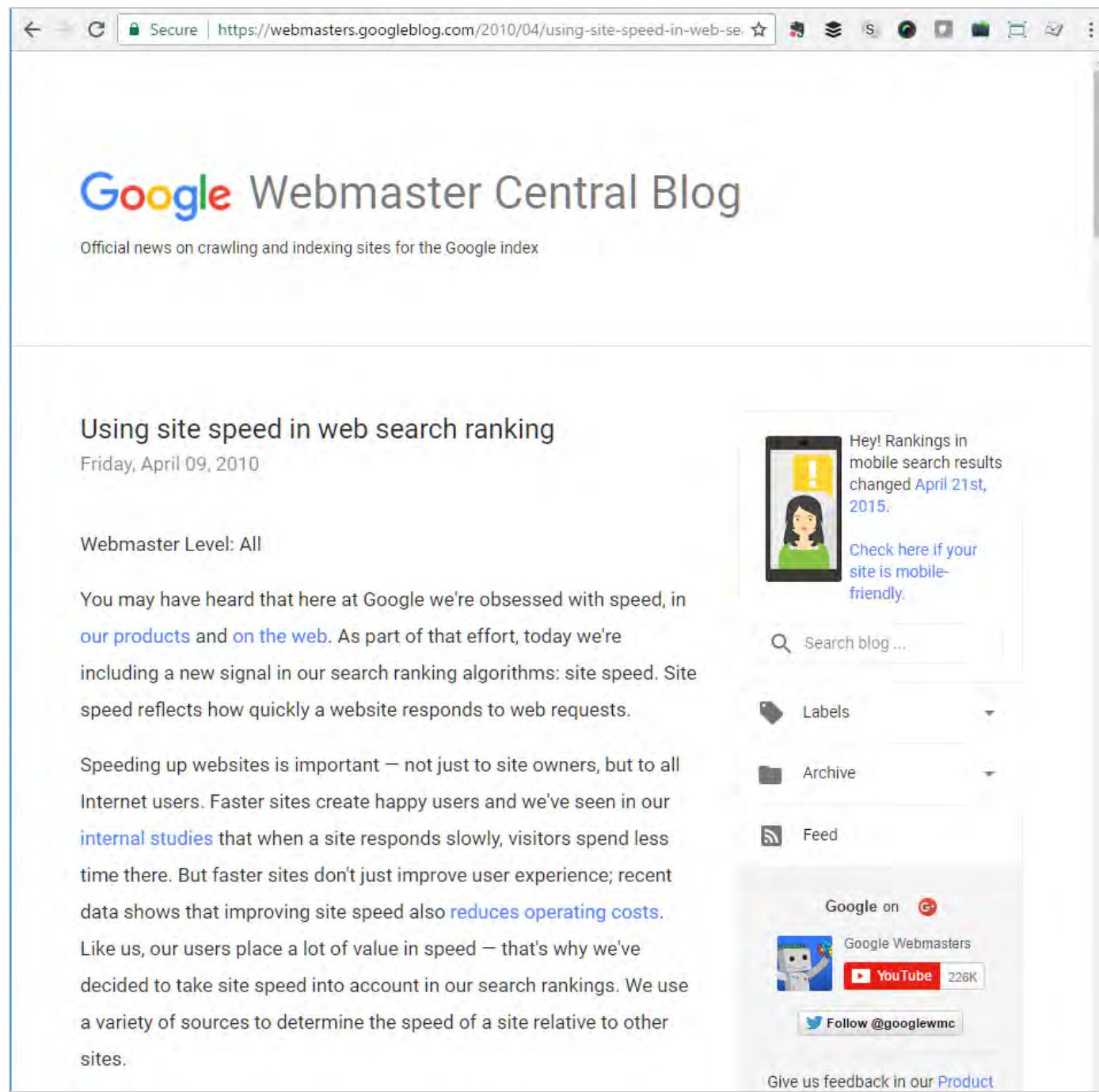
- Explicit ranking factor: Google's speed measures
- Bounce rates & "pogosticking" can have negative impact
- Crawlability of your site
- Potential for reduced shares and back-links

Not to mention overall site performance:

- *Reduced conversions*
- *Increased hosting and bandwidth costs*

Site speed

The (perceived) performance of your site has been a ranking factor for a long time.



The screenshot shows a web browser window displaying the Google Webmaster Central Blog. The address bar shows the URL <https://webmasters.googleblog.com/2010/04/using-site-speed-in-web-se>. The page header features the Google logo and the title "Webmaster Central Blog" with the subtitle "Official news on crawling and indexing sites for the Google index".

The main article is titled "Using site speed in web search ranking" and is dated "Friday, April 09, 2010". The "Webmaster Level" is set to "All".

The article text reads: "You may have heard that here at Google we're obsessed with speed, in [our products](#) and [on the web](#). As part of that effort, today we're including a new signal in our search ranking algorithms: site speed. Site speed reflects how quickly a website responds to web requests."

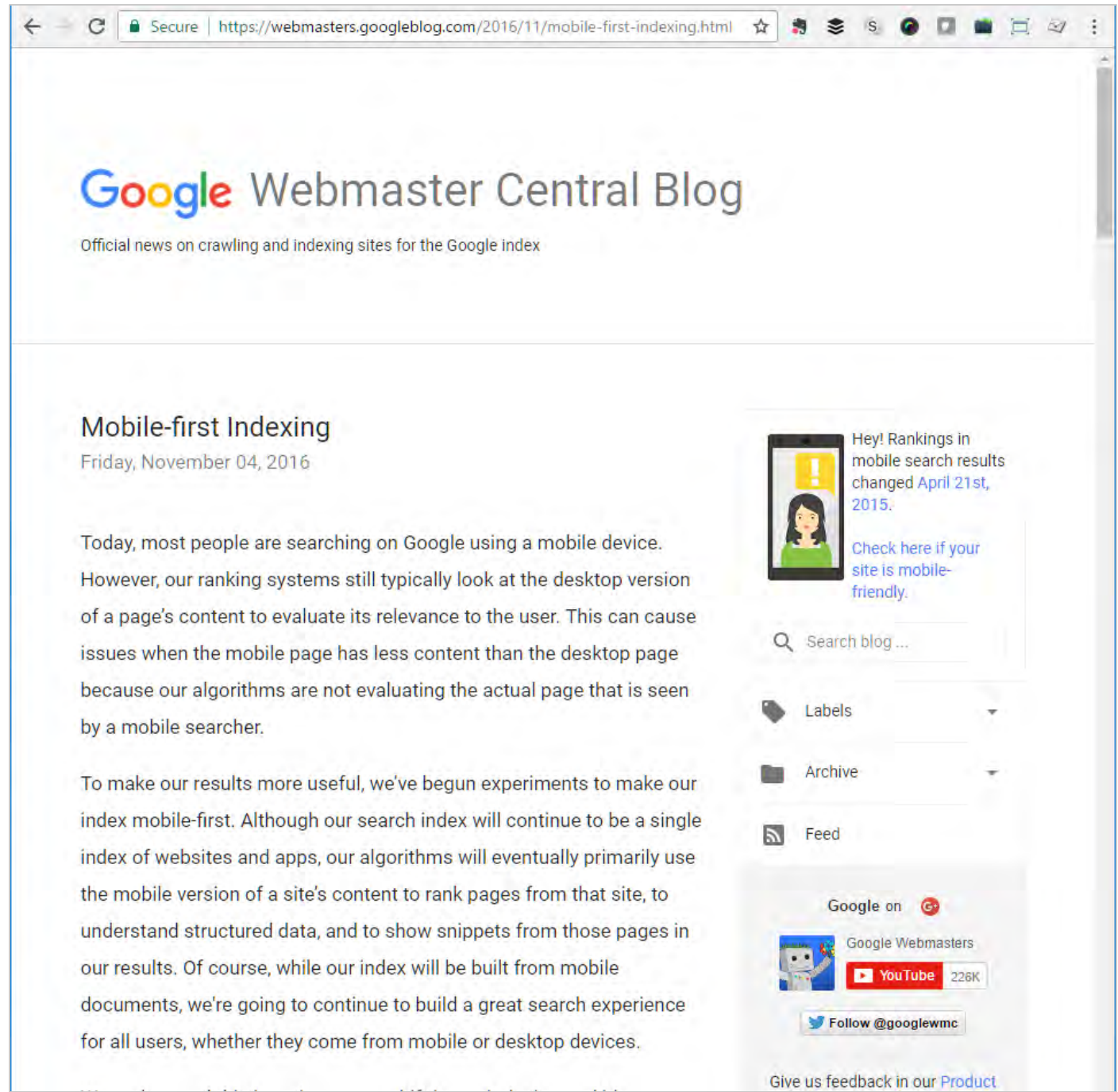
Further down, it states: "Speeding up websites is important — not just to site owners, but to all Internet users. Faster sites create happy users and we've seen in our [internal studies](#) that when a site responds slowly, visitors spend less time there. But faster sites don't just improve user experience; recent data shows that improving site speed also [reduces operating costs](#). Like us, our users place a lot of value in speed — that's why we've decided to take site speed into account in our search rankings. We use a variety of sources to determine the speed of a site relative to other sites."

On the right side of the page, there is a sidebar with several elements:

- A mobile-friendly notice: "Hey! Rankings in mobile search results changed [April 21st, 2015](#). Check here if your site is mobile-friendly."
- A search bar labeled "Search blog ...".
- Navigation links: "Labels", "Archive", and "Feed".
- A "Google on" section with links to "Google Webmasters" (226K YouTube subscribers) and "Follow @googlewmc" on Twitter.
- A footer link: "Give us feedback in our [Product](#)".

Mobile-first indexing

Many sites score lower on mobile speed tests.



The screenshot shows a web browser displaying the Google Webmaster Central Blog. The address bar shows the URL <https://webmasters.googleblog.com/2016/11/mobile-first-indexing.html>. The page features the Google logo and the title "Webmaster Central Blog" with the subtitle "Official news on crawling and indexing sites for the Google index".

Mobile-first Indexing

Friday, November 04, 2016

Today, most people are searching on Google using a mobile device. However, our ranking systems still typically look at the desktop version of a page's content to evaluate its relevance to the user. This can cause issues when the mobile page has less content than the desktop page because our algorithms are not evaluating the actual page that is seen by a mobile searcher.

To make our results more useful, we've begun experiments to make our index mobile-first. Although our search index will continue to be a single index of websites and apps, our algorithms will eventually primarily use the mobile version of a site's content to rank pages from that site, to understand structured data, and to show snippets from those pages in our results. Of course, while our index will be built from mobile documents, we're going to continue to build a great search experience for all users, whether they come from mobile or desktop devices.

Hey! Rankings in mobile search results changed [April 21st, 2015](#).
[Check here if your site is mobile-friendly.](#)

Search blog ...

Labels

Archive

Feed

Google on

Google Webmasters

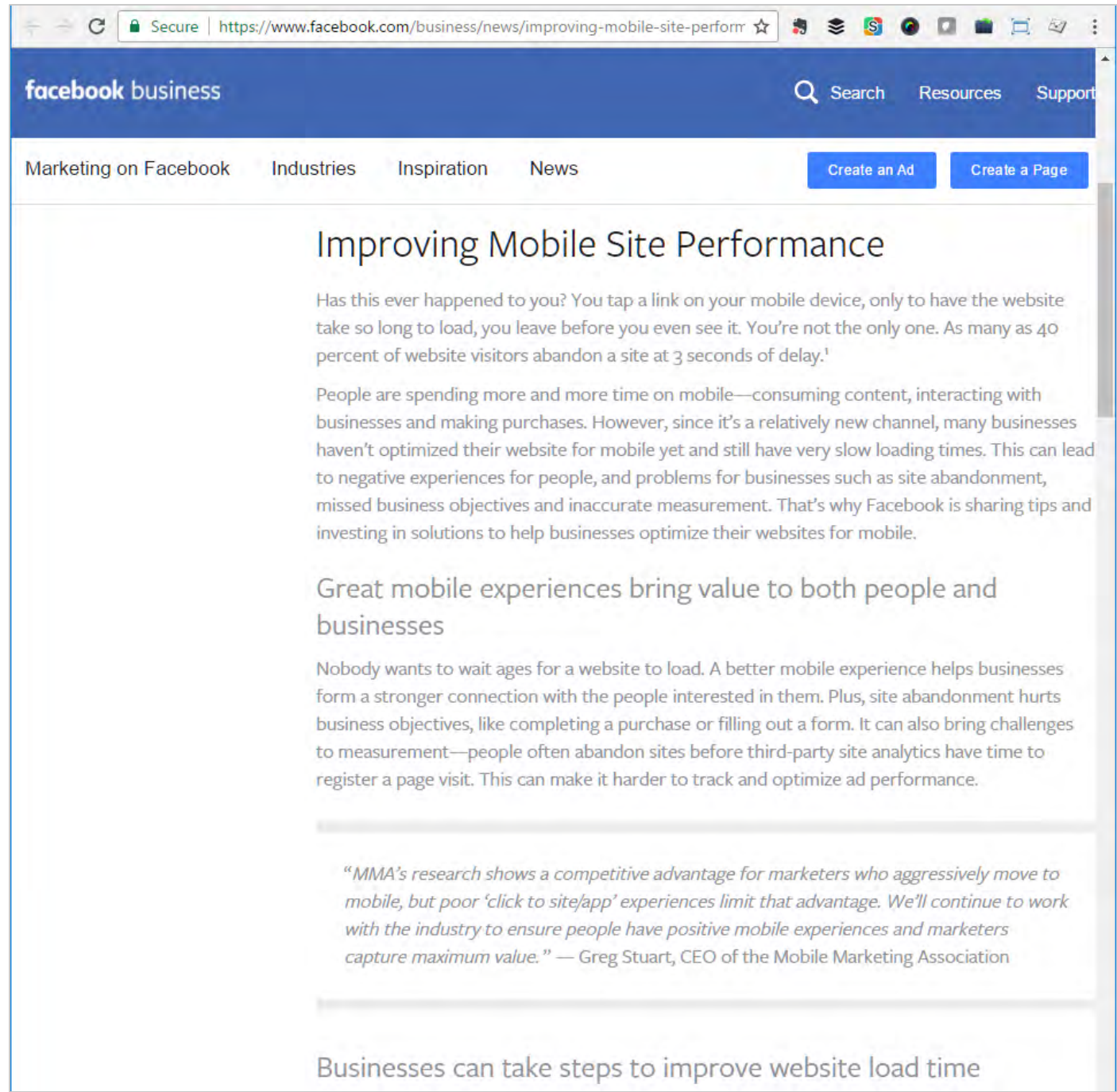
YouTube 226K

Follow @googlewmc

Give us feedback in our [Product](#)

It's not just Google ...

Facebook has also indicated that they will be “considering website performance and a person’s network connection” in ad auctions.



The screenshot shows the Facebook Business News page. The URL in the browser is <https://www.facebook.com/business/news/improving-mobile-site-perform>. The page header includes the Facebook Business logo, a search bar, and links to Resources and Support. Below the header, there are navigation tabs for Marketing on Facebook, Industries, Inspiration, and News, along with buttons for 'Create an Ad' and 'Create a Page'.

Improving Mobile Site Performance

Has this ever happened to you? You tap a link on your mobile device, only to have the website take so long to load, you leave before you even see it. You're not the only one. As many as 40 percent of website visitors abandon a site at 3 seconds of delay.¹

People are spending more and more time on mobile—consuming content, interacting with businesses and making purchases. However, since it's a relatively new channel, many businesses haven't optimized their website for mobile yet and still have very slow loading times. This can lead to negative experiences for people, and problems for businesses such as site abandonment, missed business objectives and inaccurate measurement. That's why Facebook is sharing tips and investing in solutions to help businesses optimize their websites for mobile.

Great mobile experiences bring value to both people and businesses

Nobody wants to wait ages for a website to load. A better mobile experience helps businesses form a stronger connection with the people interested in them. Plus, site abandonment hurts business objectives, like completing a purchase or filling out a form. It can also bring challenges to measurement—people often abandon sites before third-party site analytics have time to register a page visit. This can make it harder to track and optimize ad performance.

“MMA’s research shows a competitive advantage for marketers who aggressively move to mobile, but poor ‘click to site/app’ experiences limit that advantage. We’ll continue to work with the industry to ensure people have positive mobile experiences and marketers capture maximum value.” — Greg Stuart, CEO of the Mobile Marketing Association

Businesses can take steps to improve website load time

PageSpeed Insights testing tool

The screenshot displays the PageSpeed Insights web application. The browser's address bar shows the URL <https://developers.google.com/speed/pagespeed/insights/?url=http%3A%2F%2Fwww.wikipedia.org%2F>. The page title is "PageSpeed Tools > Insights". Below the navigation bar, the URL <http://www.wikipedia.org/> is entered in the input field, and the "ANALYZE" button is visible. The "Mobile" tab is selected, indicated by a green checkmark. The test results show a score of "86 / 100" under the heading "Suggestions Summary". A section titled "Consider Fixing:" lists three recommendations: "Eliminate render-blocking JavaScript and CSS in above-the-fold content" (with a "Show how to fix" link), "Leverage browser caching" (with a "Show how to fix" link), and "Optimize images" (with a "Show how to fix" link). Below this, a green checkmark indicates "7 Passed Rules" (with a "Show details" link). A link to "Download optimized image, JavaScript, and CSS resources for this page." is provided. A note at the bottom states: "*The results are cached for 30s. If you have made changes to your page, please wait for 30s before re-running the test." On the right side, there is a visual representation of the mobile device showing the Wikipedia homepage. The footer contains three links: "Web Performance" (Learn more about [web performance tools at Google](#), including), "Give Feedback" (Have comments or questions about PageSpeed Insights? [Send](#)), and "About PageSpeed Insights" (PageSpeed Insights analyzes the content of a web page, then).

Chrome Inspector: Audits

The screenshot shows the Chrome DevTools interface with the Audits panel open. The browser window displays the Kaiser Permanente website, which includes a header with the logo, a main image of a woman kissing a baby, and a section titled "Healthier tomorrows start here". The Audits panel on the right shows a list of performance issues categorized under "Network Utilization" and "Web Page Performance".

Audits RESULTS

- Network Utilization**
 - Combine external JavaScript (10)
 - Enable gzip compression (1)
 - Leverage browser caching (48)
 - Minimize cookie size
 - Serve static content from a cookieless domain (14)
 - Specify image dimensions (1)
- Web Page Performance**
 - Optimize the order of styles and scripts (5)
 - Remove unused CSS rules (3043)

Below the browser window, there is a control panel for the audit:

☐ Audit Present State
☒ Reload Page and Audit on Load

Who can fix common PageSpeed issues?

Author/editor + designer Optimize images
[Take care when adding JavaScript tags & widgets]

Designer + developer Prioritize visible content
Optimize CSS delivery
Remove render-blocking JavaScript
Use asynchronous scripts
Minify resources

Developer + IT + software Improve server response time
Enable compression
Leverage browser caching

Chrome Inspector: Network

The screenshot shows the Chrome DevTools Network tab open on the Kaiser Permanente website. The page content includes a welcome message, the Kaiser Permanente logo, a photo of a woman kissing a baby, and a 'Sign on' button. The Network tab displays a list of network requests, with a detailed view of the 'woman-kissing-baby-banne...' request selected. The detailed view shows the request's status (200), type (jpeg), initiator (index), size (102 KB), and time (168 ms). The Waterfall view shows the request's timing relative to other requests on the page.

Kaiser Permanente welcomes new members from Group Health Cooperative. Are you a Washington resident outside the Vancouver/Longview area? [Visit kp.org/wa](https://kp.org/wa).

KAISER PERMANENTE

[Sign on](#)

Healthier tomorrows start here

No matter what your future holds, we've got you covered. With great doctors, screenings, and advanced research, we've got a plan to keep you healthy — today and tomorrow.

[Why choose Kaiser Permanente?](#) [New member? Start here.](#)

33 requests | 1016 KB transferred | Finish: 7.06 s | DOMContentLoaded: 1.69 s | Load: 2.86 s

Name	Status	Type	Initiator	Size	Time	Waterfall
woman-kissing-baby-banne...	200	jpeg	(index)	102 KB	168 ms	
clientlib-all.4eb179b2ec9df1...	200	stylesh...	(index)	96.7 KB	469 ms	
clientlib-external.2f4a19ed1...	200	script	(index)	80.5 KB	255 ms	
angular15.0553e479fdadb30...	200	script	(index)	70.2 KB	332 ms	
father-mother-baby-smiling...	200	jpeg	(index)	63.5 KB	192 ms	

Proper use of HTML elements

For example, page headers:

- Only one H1 per page
- Properly nested sub-heads
- Phrases optimized for SEO

H1 →

LUNG CANCER

There are two primary types of lung cancer. The most common type, called non-small cell lung cancer, accounts for almost 90 percent of lung cancers. Non-small cell lung cancers are further divided into several classifications, depending on which cells they develop in, each with a different treatment and prognosis. The other primary lung cancer, called small cell lung cancer, begins in the bronchi and usually spreads quickly to other parts of the body. Aside from skin cancer, lung cancer is the second most common cancer affecting both men and women. It usually affects people over 65 and is slightly more likely to affect men than women.

At NewYork-Presbyterian, patients with lung cancer are cared for by a multi-disciplinary team of physicians and researchers dedicated to improving the prospects for all patients with this disease. They meet regularly to discuss research, review patients' cases, and plan courses of treatment. Additionally, we have a robust clinical research program aimed at developing novel treatments for lung cancer, and we offer a wide range of clinical trials to patients with lung cancer.

LUNG CANCER

Mediastinal Tumors

Pleural Tumors

H2 →

Risk Factors

Smoking is the biggest single risk factor for lung cancer in general, although it is not uncommon for non-smokers to develop small cell lung cancer. Exposure to radon gas or asbestos, and to certain workplace ores or chemicals including uranium, arsenic, and diesel exhaust are also known to increase the risk of contracting the disease. Having a family history of lung cancer can be a contributing factor, as can previous radiation therapy to the chest. Air pollution is also believed to contribute to risk for lung cancer.



H2 →

Symptoms

In its early stages lung cancer may not cause any symptoms. As the disease advances, however, the following symptoms may develop: a persistent or worsening cough; trouble breathing or shortness of breath; constant chest pain; bloody cough; a hoarse voice; frequent lung infections, such as pneumonia; fatigue; and unexplained weight loss. Conditions other than lung cancer can also cause these symptoms, and patients with any symptoms should see a doctor to determine the cause.

H2 →

Treatment

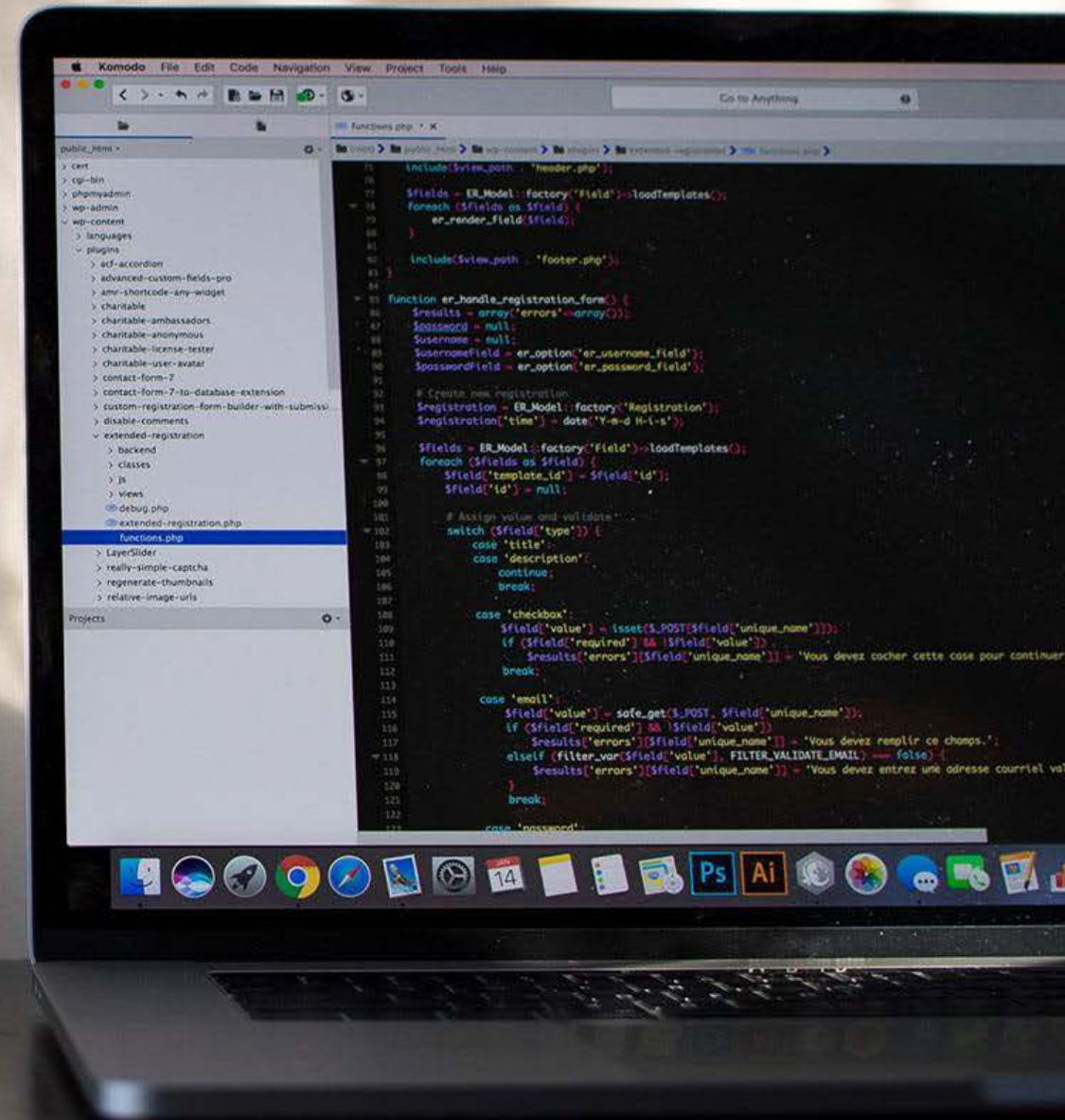
Our doctors determine the best treatment approach for each patient with lung cancer by taking into account the type and stage of the disease, its location - particularly its proximity to vital structures such as the heart or the aorta - and the patient's age and physical health. Treatment may include surgery, radiation, chemotherapy, immunotherapy, targeted therapies, or a combination.

H3 →

Surgery

Treatment for early-stage, non-small cell lung cancer often involves surgery, during which surgeons remove the tumor and a

A word about JavaScript and SEO.



What to do

For designers

- Review PageSpeed measures on a variety of page types
- Consider SEO when implementing JavaScript features
- Ensure HTML meets standards and is semantic

For everyone

- Become familiar with impact of images
- Use the semantic markup features of your site correctly
- Consider an audit

Maintainability



What is design?

“Look and feel” + how it’s made.



JavaScript
CSS
HTML
SVG
Foundation
Web Fonts
Haml
PNG
JQuery
Jasmine
Bootstrap
Angular
Backbone
React
Ember
SASS
LESS
Handlebars
Git
Bower

Avoiding spaghetti code



Symptoms that things have gone wrong

- Fear of making changes
- Feeling of being burdened by / locked into current state
- Poor (or absent) coding practices: code reviews, automated testing, source control, etc.
- Only one person knows what will happen if we change ____
- Code-heavy pages
- Duplication of code – changes required in multiple (unknown) places, multiple versions of same code libraries

What to do

For designers

- Find a place to begin improving coding practices
- Looks for ways to weave improvements into ongoing projects

For everyone

- Acknowledge that maintaining your site's codebase requires an ongoing investment

Key takeaways





Who does “design”?
Design happens.

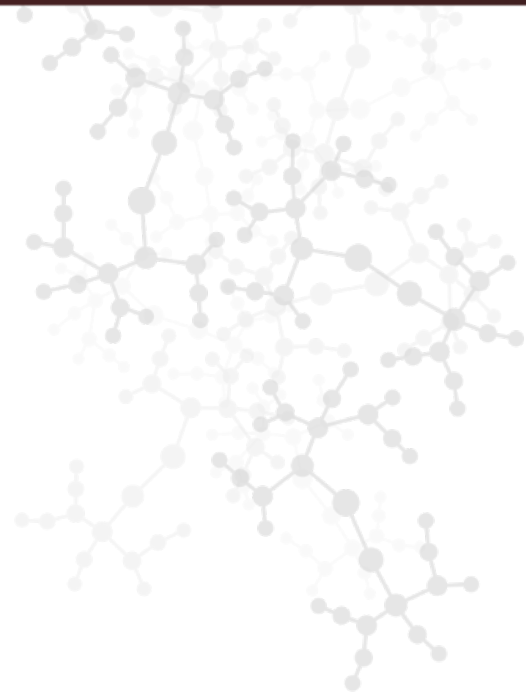
What are the impacts
of design choices?

Performance
+
Maintainability



Final tip: Ask these questions

- How will it work for mobile users?
- How will it meet our accessibility standards?
- What are the SEO impacts of this approach?
- Is there a simpler way?



Questions?

Email hello@geonetric.com

