



Core Web Vitals

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- Work for Impression
- Background as web developer
- Passion for web performance



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Core Web Vitals

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Common issues

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Auditing process

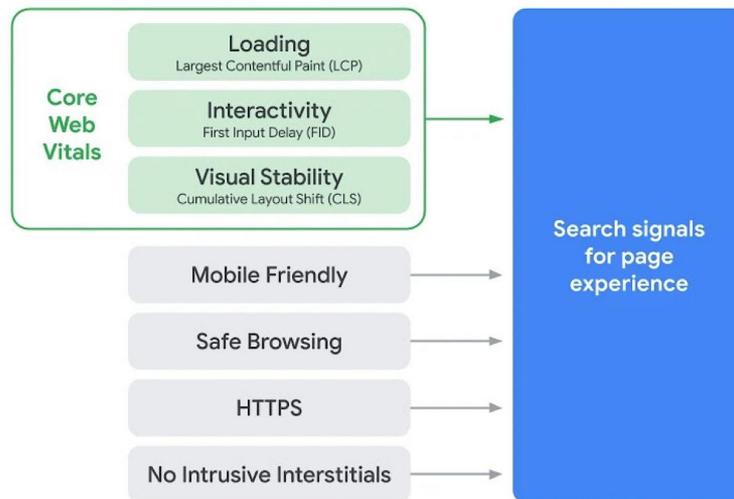
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What are they?

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Page experience metrics

This collection of search signals make up page experience. They are aimed at providing a strong user experience as well as a safe browsing environment.



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Core Web Vitals

Core Web Vitals are made up of three different metrics:

- LCP (loading speed)
- FID (interactivity)
- CLS (stability)

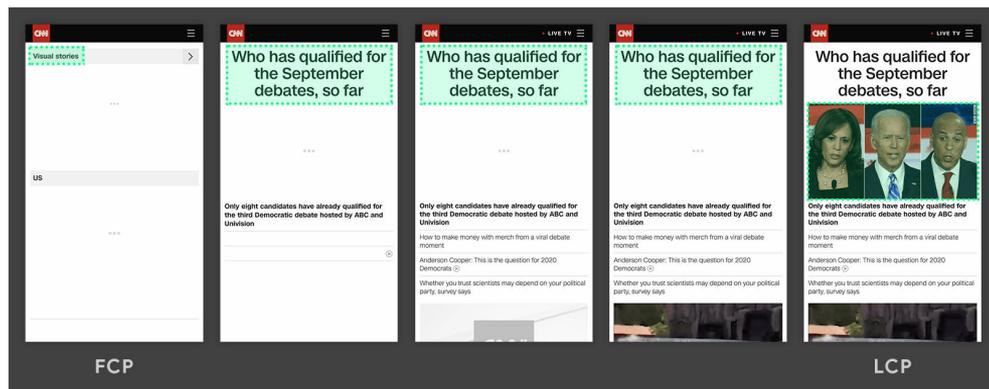


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LCP (largest contentful paint)

The measurement of when the largest content element is visible within the viewport. These elements can be:

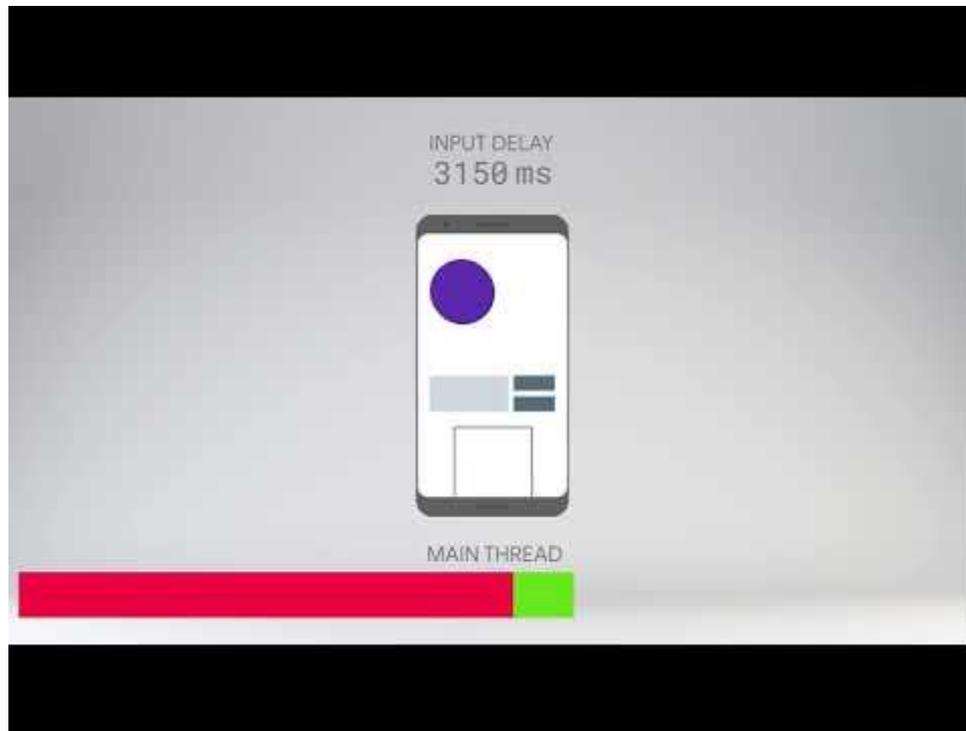
- ``
- `<video>`
- `<image>`
- Block level HTML elements (p, h1,h2, o)



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FID (first input delay)

Measures a page's responsiveness during load. As such, it only focuses on input events from discrete actions like clicks, taps, and key presses.



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CLS (cumulative layout shift)

CLS measures the sum total of all individual layout shift scores for every unexpected layout shift that occurs during the entire lifespan of the page.

*layout shift score = impact fraction * distance fraction*



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**Why are they
important?**

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Speed update

Using page speed in mobile search ranking

Wednesday, January 17, 2018

Update July 9, 2018: The Speed Update is now rolling out for all users.

People want to be able to find answers to their questions as fast as possible — [studies](#) show that people really care about the speed of a page. Although speed has been used in ranking for some time, that [signal](#) was focused on desktop searches. Today we're announcing that starting in July 2018, page speed will be a ranking factor for mobile searches.

<https://webmasters.googleblog.com/2018/01/using-page-speed-in-mobile-search.html>

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Ranking signal May 2021

Today we're announcing that the page experience signals in ranking will roll out in May 2021. The new page experience signals combine Core Web Vitals with our existing search signals including [mobile-friendliness](#), [safe-browsing](#), [HTTPS-security](#), and [intrusive interstitial guidelines](#).

<https://webmasters.googleblog.com/2020/11/timing-for-page-experience.html>

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'Ranking boost'

[Help Center](#)

[Community](#)

How usable is your website?

The Page Experience report is a high-level summary of your website's user-friendliness. This score is based on the following metrics:

- **Mobile usability:** Whether the page looks and works well on a mobile device. More than 50% of all searches are done on a mobile device. Click your site's mobile usability evaluation to open up the Mobile Usability report, which provides details about which pages have mobile usability issues.
- **Core Web Vitals:** The speed and visual stability of a page during page loading. Pages should be quick to load and be available for interactions, and should not jump around visually as slower parts of the page load. Click your Core Web Values evaluation to open up the Core Web Values report, which provides details about any issues on your site.
- **HTTPS usage:** Whether the majority of your site uses HTTPS, rather than HTTP. HTTPS provides a much more secure user experience than HTTP, so only pages that use HTTPS are considered to be eligible for good page experience badging.
- **Security issues** on a site can cause a bad or even harmful experience. If your site has been hacked to show spam or distribute harmful downloads, or has bad practices like unclear billing, this can disqualify your pages from being considered a good experience.
- **Ad experience:** Web pages with popups that steal focus and other distracting ad behavior are a bad user experience. Though not yet shown in the Page Experience report, you can visit the linked report to see your site's evaluation.

The Page Experience report shows your metrics for mobile usability and Core Web Vitals, and can show the approximate number of pages considered to have a good page experience. Pages that pass all metrics are considered to have a good user experience on mobile devices, and can get a badge, and in future will be eligible for a ranking boost, in mobile search results.

[Open the Page Experience report](#)

or

[Read more details](#)

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Badge

Pages that 'pass' the core web vital thresholds will get a badge in their search result.

It's subtle so won't impact CTR but it might become synonymous with a good experience on mobile.

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backlinko.com › hub › best-practices ↗

SEO Best Practices: 10 Tips to Improve Your Google Rankings

A list of 10 key SEO best practices with a focus on on-page SEO strategies. ... Backlinks correlated to higher ranking.

YS yourstory.com › mystory › ten-... ↗

10 Best Practices to Generate Website Backlinks - YourStory

10 Best Practices to Generate Website Backlinks. By Danya Ayaz|4th Jan 2020. To develop stronger website backlinks, ...

Measured on a per page basis

“Core Web Vitals thresholds are assessed at the per-page level, and you might find that some pages are above and others below these thresholds.”

<https://support.google.com/webmasters/thread/86521401?hl=en>

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How to measure them?

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Chrome User Experience Report

Google use their real-world database of Chrome users to measure all of these metrics.

This means you're scored by real users and not a machine.

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Chrome User Experience Report

[Send feedback](#)

The Chrome User Experience Report provides user experience metrics for how real-world Chrome users experience popular destinations on the web.

Methodology

The Chrome User Experience Report is powered by real user measurement of key user experience metrics across the public web, aggregated from users who have opted-in to syncing their browsing history, have not set up a Sync passphrase, and have [usage statistic reporting](#) enabled. The resulting data is made available via:

1. [PageSpeed Insights](#), which provides URL-level user experience metrics for popular URLs that are known by Google's web crawlers.
2. [Public Google BigQuery project](#), which aggregates user experience metrics by origin, for all origins that are known by Google's web crawlers, and split across multiple dimensions outlined below.
3. [CrUX Dashboard on Data Studio](#), which can be setup to track an origin's user experience trends.



Chrome User Experience Report

All of the field data is stored in the cloud, this can be accessed through BigQuery or Google Data Studio.

<https://g.co/chromeuxdash> has been updated to these reflect metrics.

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Largest Contentful Paint (LCP)

LCP reports the render time of the largest content element that is visible within the viewport.

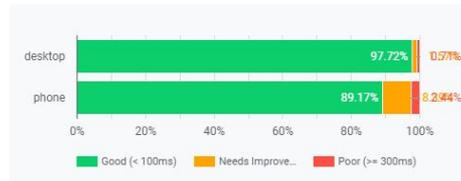
web.dev/lcp



First Input Delay (FID)

FID measures the time from when a user first interacts with a page (i.e. when they click a link, tap on a button, or use a custom, JavaScript-powered control) to the time when the browser is actually able to respond to that interaction.

web.dev/fid



Cumulative Layout Shift (CLS)

CLS measures the sum total of all individual layout shift scores for every unexpected layout shift that occurs during the entire lifespan of the page.

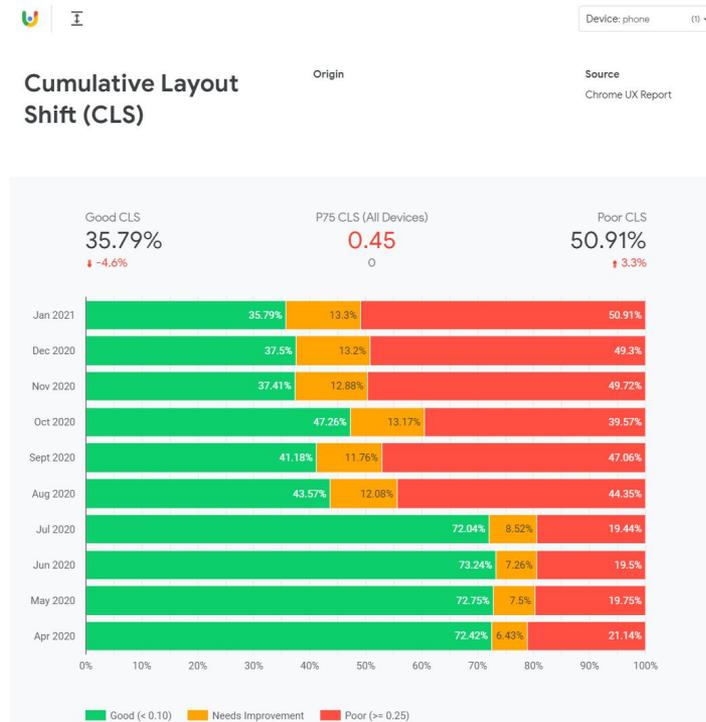
web.dev/cls



Chrome User Experience Report

This dashboard allows you to drill down into specific issues and see when they started to occur.

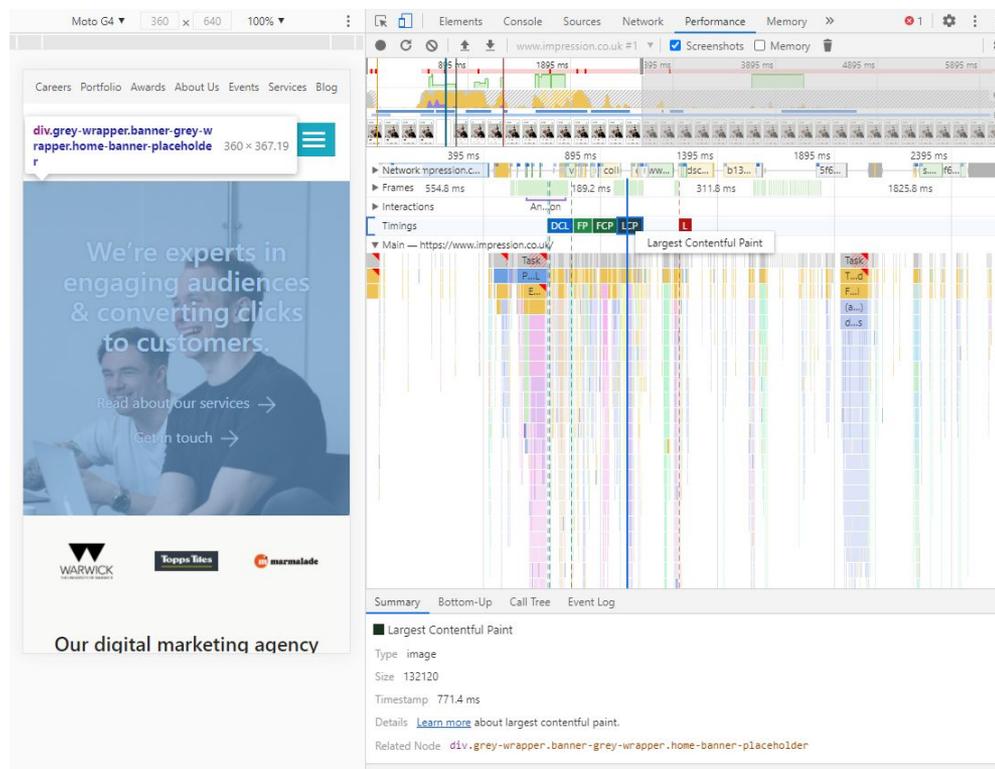
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Chrome Developer Tools

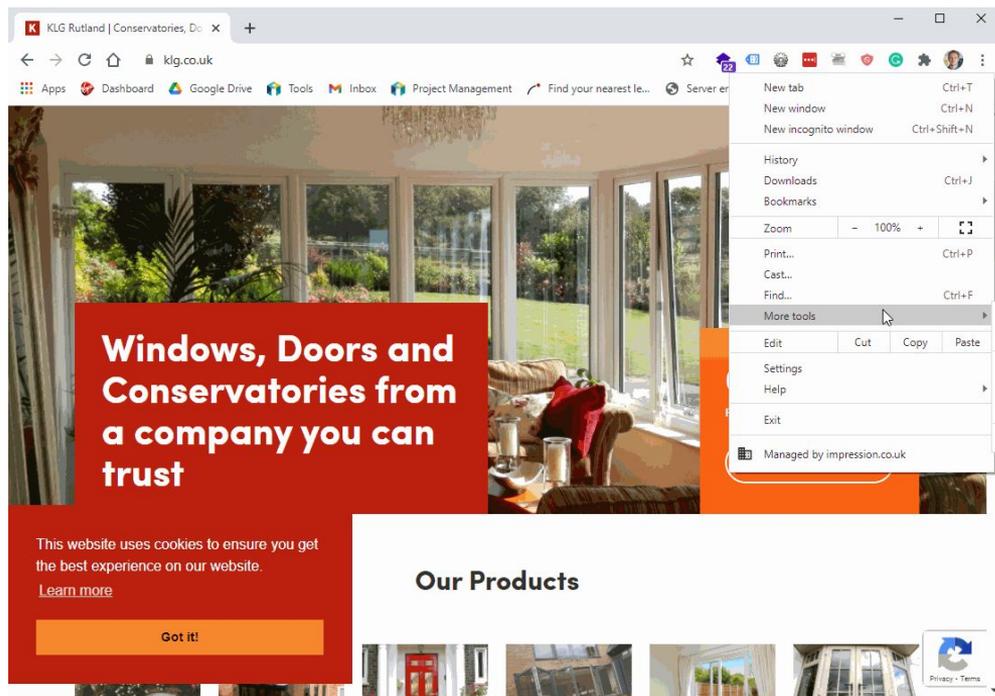
Using the Performance tab in developer tools you can see the element which is being measured as the LCP.

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Chrome Developer Tools

You can use the inbuilt Lighthouse test to identify which elements are causing the layout shift.

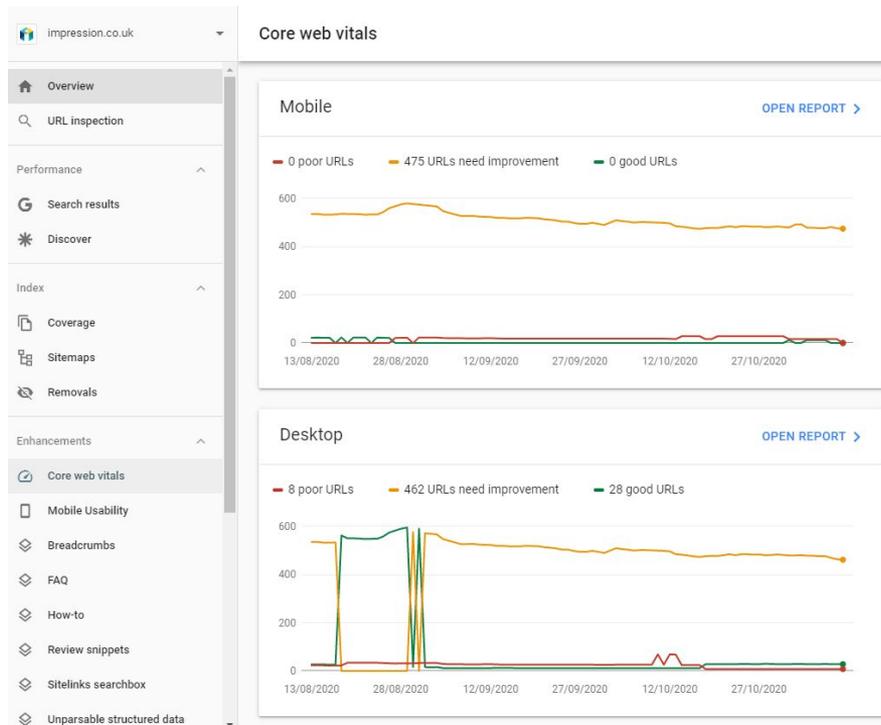


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Search Console

Underneath the enhancement tab you can find these metrics grouped by mobile or desktop.

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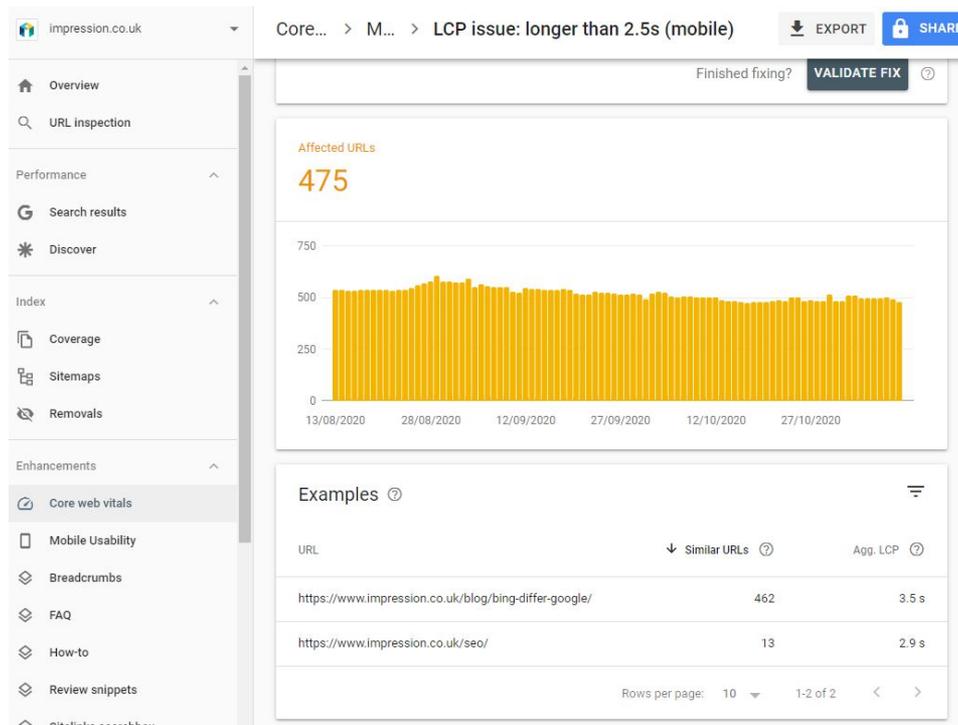


Search Console

URLs are grouped into 'Similar URLs' which in theory should help you spot issues with each individual template.

In practice this just groups hundreds of URLs together.

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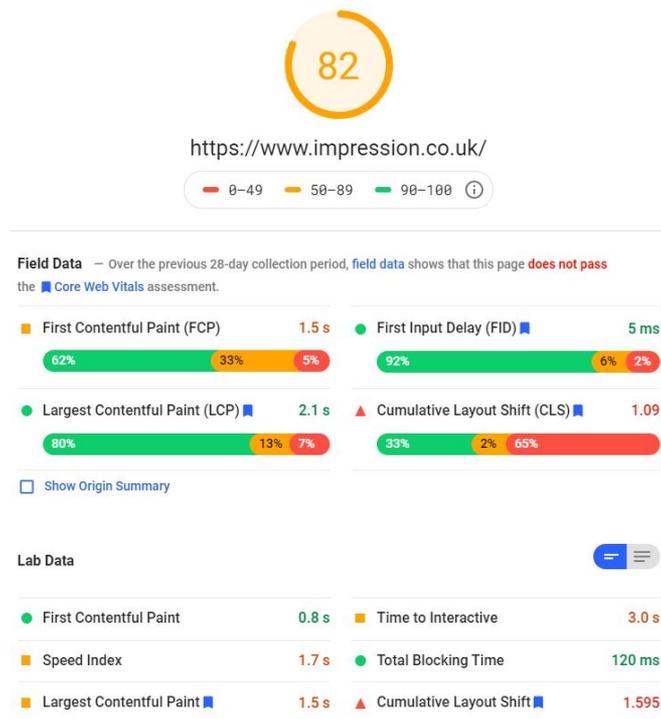


Page Speed Insights

You can the scores test individual URLs in page speed insights.

It's important to differentiate between field data and lab data!

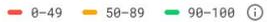
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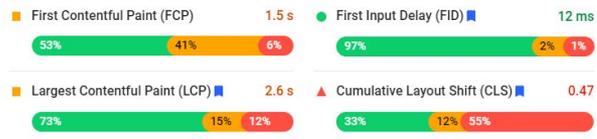
Desktop

83

https://www.feelgoodcontacts.com/



Field Data — Over the previous 28-day collection period, field data shows that this page **does not pass** the [Core Web Vitals](#) assessment.



Show Origin Summary

Lab Data



Mobile

18

https://www.feelgoodcontacts.com/



Field Data — Over the previous 28-day collection period, field data shows that this page **does not pass** the [Core Web Vitals](#) assessment.



Show Origin Summary

Lab Data

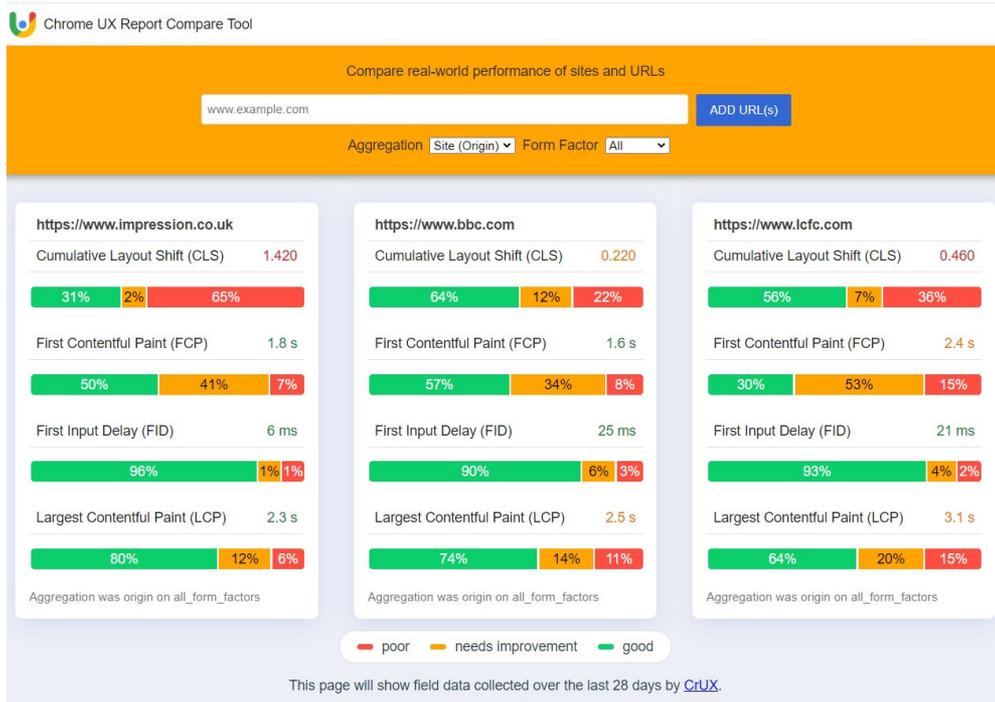


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CrUX Comparison Tool

This tool allows you to test websites at both a domain and URL level across multiple devices.

It's great for benchmarking individual URLs against competitors.

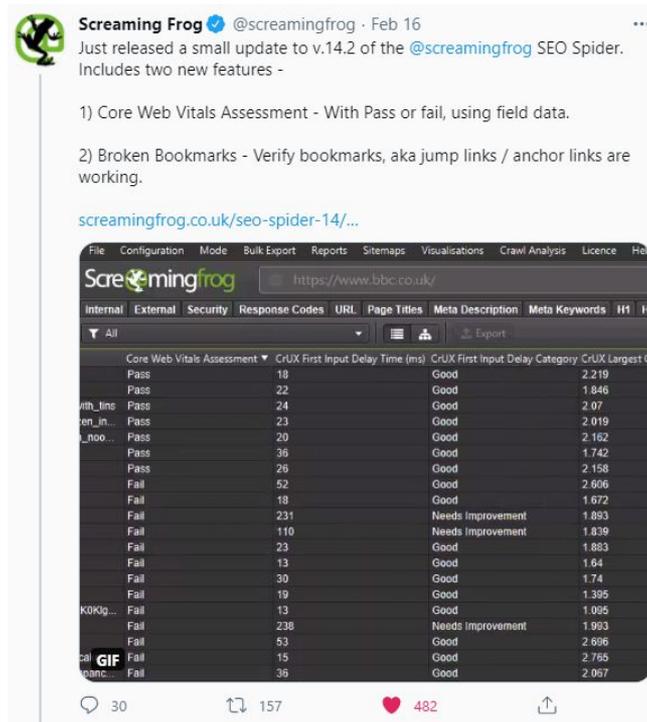


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ScreamingFrog

Screaming Frog (as of yesterday) now allows you to crawl a website and use the Page Speed Insights API to generate Core Web Vitals metrics.

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Screaming Frog @screamingfrog · Feb 16
Just released a small update to v.14.2 of the @screamingfrog SEO Spider. Includes two new features -

- 1) Core Web Vitals Assessment - With Pass or fail, using field data.
- 2) Broken Bookmarks - Verify bookmarks, aka jump links / anchor links are working.

[screamingfrog.co.uk/seo-spider-14/...](https://screamingfrog.co.uk/seo-spider-14/)

Core Web Vitals Assessment	CrUX First Input Delay Time (ms)	CrUX First Input Delay Category	CrUX Largest C...
Pass	18	Good	2.219
Pass	22	Good	1.846
Pass	24	Good	2.07
Pass	23	Good	2.019
Pass	20	Good	2.162
Pass	36	Good	1.742
Pass	26	Good	2.158
Fail	52	Good	2.606
Fail	18	Good	1.672
Fail	231	Needs Improvement	1.893
Fail	110	Needs Improvement	1.839
Fail	23	Good	1.883
Fail	13	Good	1.64
Fail	30	Good	1.74
Fail	19	Good	1.395
Fail	13	Good	1.085
Fail	238	Needs Improvement	1.993
Fail	53	Good	2.606
Fail	15	Good	2.765
Fail	36	Good	2.087

30 157 482

DeepCrawl

DeepCrawl pulls through CLS data when JavaScript rendering is enabled.

This helps you gather the scores for all pages across a site at scale.

Name	Trend	All	Change	Added	Removed	Missing
Max HTML Size		10,123	(- 15%) -1,823 ▼	7,526	1	9,348
Slow Server Response		3,339	(+ 40%) 960 ▲	1,517	345	212
Poor CLS		1,714	(+ 902%) 1,543 ▲	1,666	0	123
Max Fetch Time		33	(+ 1,550%) 31 ▲	33	0	2
Slow LCP		170	(+ 554%) 144 ▲	168	8	16
Slow DCL		75	(+ 257%) 54 ▲	75	6	15
Slow FCP		11	8 ▲ (+ 267%)	11	2	1

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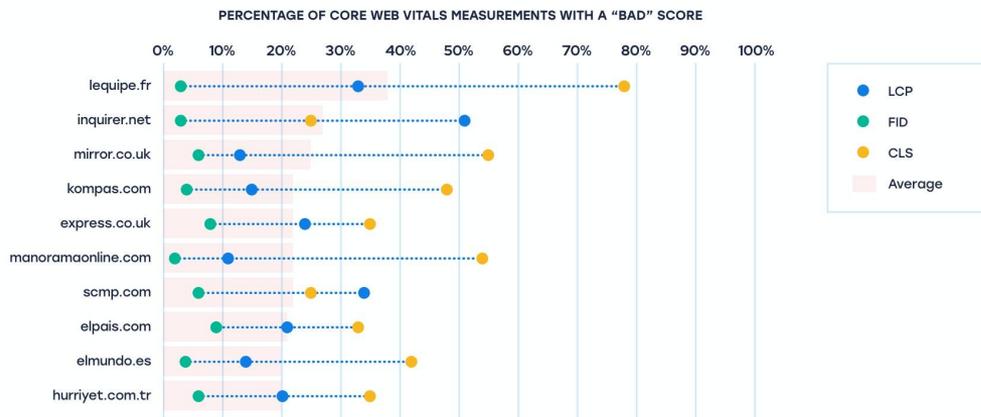
Common issues

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Publisher study

Impression recently analysed top publishers around the world to analyse the core web vitals of top publishing websites.

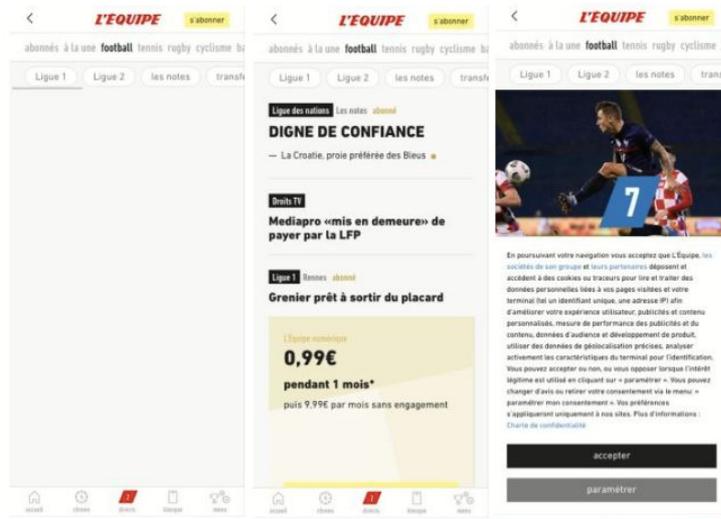
Study



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L'equipe

This site scores poorly for CLS as it loads in a large list of links which are then moved by the cookie policy and banner image.



1

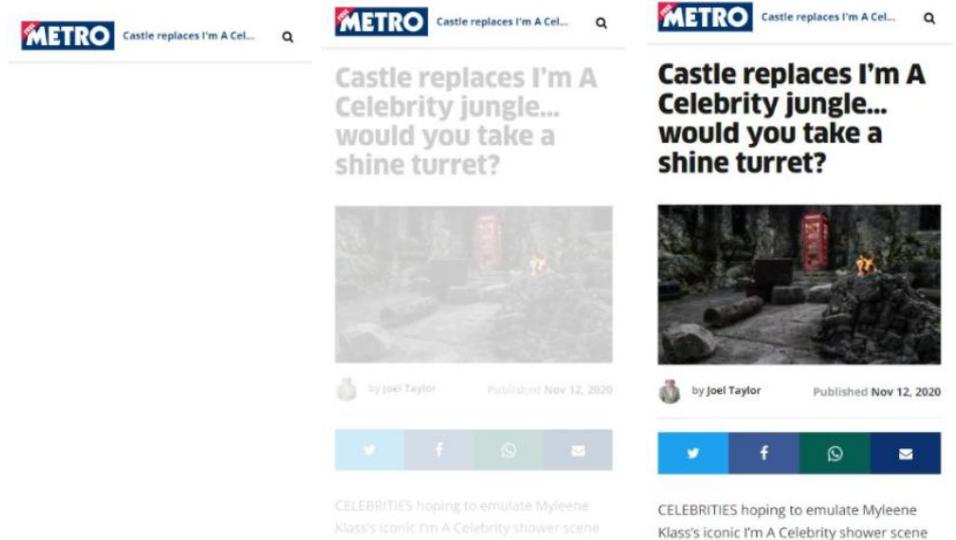
2

3

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Metro.news

The image fading in causes the LCP to lengthen due the animation waiting to complete.



1

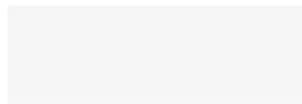
2

3

IMPRESSION

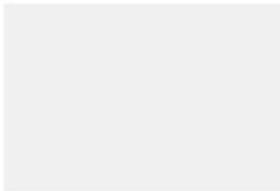
SCMP.com

This site makes space to banner to avoid layout shift but fades in the image which artificially inflates the LCP



South China Morning Post

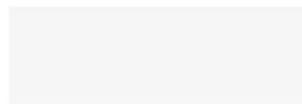
HONG KONG
POLITICS



Canada's immigration scheme for Hong Kong 'may result in exodus from city'

Canada on Thursday unveiled new rules to make it easier for Hong Kong's youth to

1



South China Morning Post

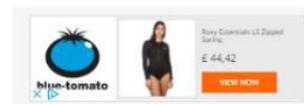
HONG KONG
POLITICS



Canada's immigration scheme for Hong Kong 'may result in exodus from city'

Canada on Thursday unveiled new rules to make it easier for Hong Kong's youth to

2



South China Morning Post



HONG KONG
POLITICS



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ACCEPT

3

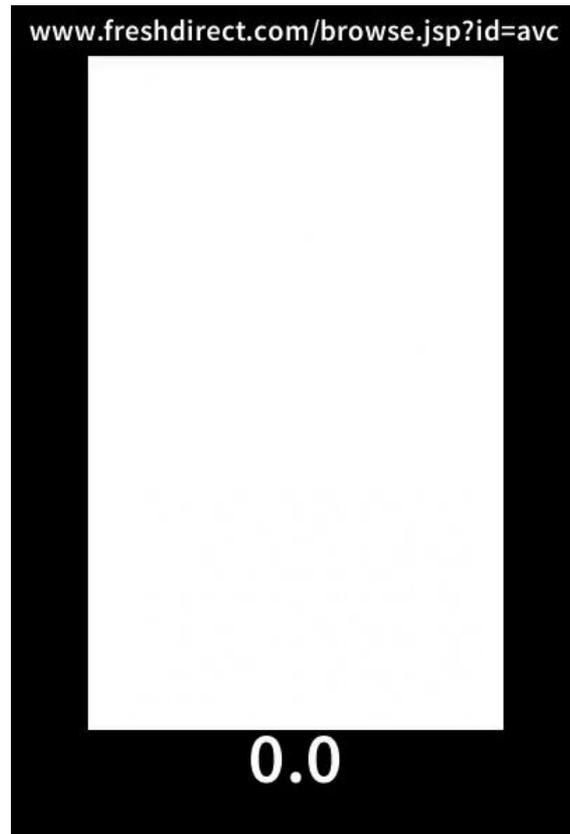
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CLS

CLS is caused by a wide variety of issues, the example on the right shows throughout the page load just how much content can shift around if not given space to load in correctly.

<https://www.webpagetest.org/>

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Page Speed Insights

Often poor Core Web Vital scores can be attributed to the normal areas that PageSpeed Insights flags.

These recommendations can be passed on to developers to fix.

Opportunities — These suggestions can help your page load faster. They don't **directly affect** the Performance score.

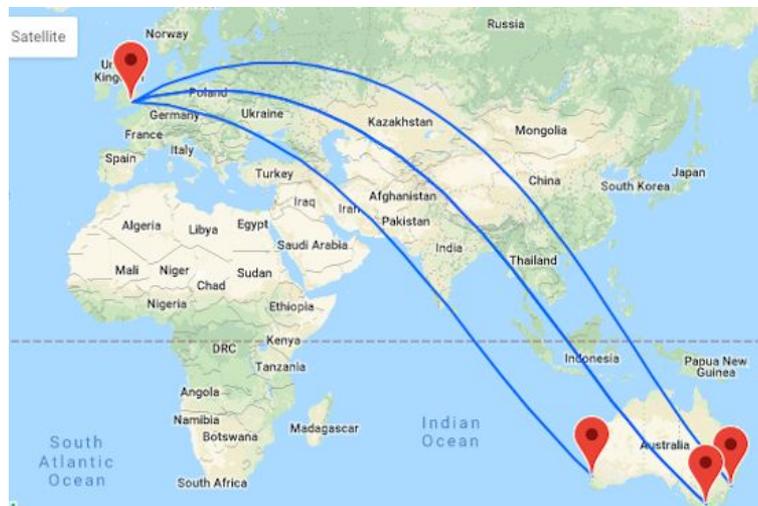
Opportunity	Estimated Savings
▲ Reduce initial server response time	 1.52 s ▾
▲ Remove unused JavaScript	 1.37 s ▾

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Users load from around the world!

If your site is running a CDN these metrics can be impacted.

Understand where traffic is coming from as data might have to travel very far without a node to help you out.



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Users load from around the world!

Our client had a poor TTFB which was stemming from them not using a CDN.

This meant their global user base contributed to a poor LCP.

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Slow Time To First Byte (TTFB)

▲ Reduce initial server response time 0.68 s

Keep the server response time for the main document short because all other requests depend on it. [Learn more.](#)

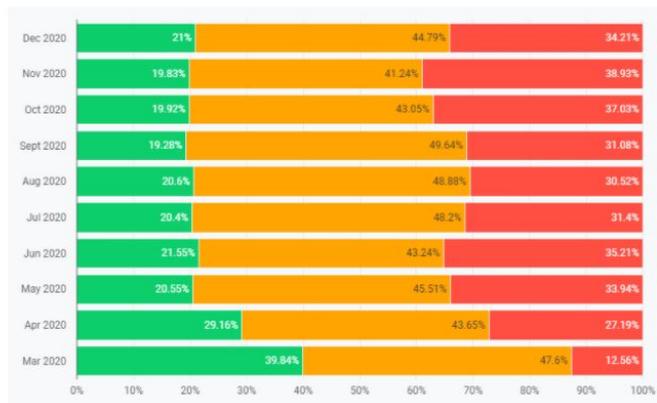


Themes, plugins, and server specifications all contribute to server response time. Consider finding a more optimized theme, carefully selecting an optimization plugin, and/or upgrading your server.

URL

Time Spent

780 ms



Auditing process

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1. Create your Core Web Vitals dashboard

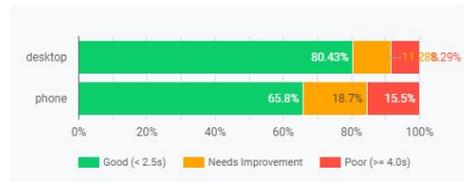
Create your dashboard and identify common areas to improve.

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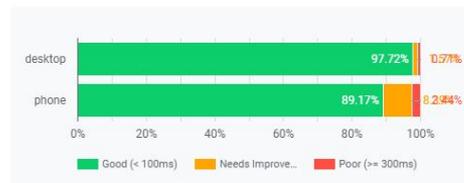
Largest Contentful Paint (LCP)

LCP reports the render time of the largest content element that is visible within the viewport.
web.dev/lcp



First Input Delay (FID)

FID measures the time from when a user first interacts with a page (i.e. when they click a link, tap on a button, or use a custom, JavaScript-powered control) to the time when the browser is actually able to respond to that interaction.
web.dev/fid



Cumulative Layout Shift (CLS)

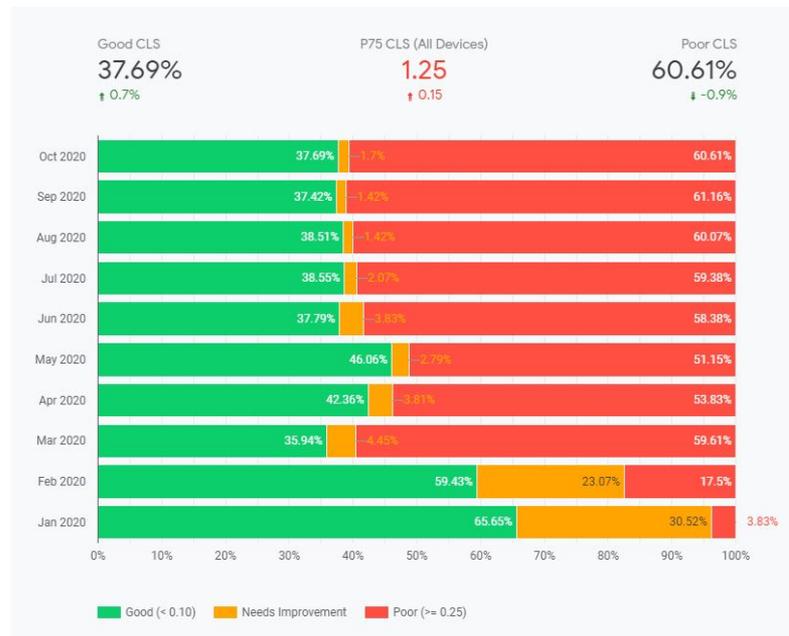
CLS measures the sum total of all individual layout shift scores for every unexpected layout shift that occurs during the entire lifespan of the page.
web.dev/cls



1. Create your Core Web Vitals dashboard

The dashboard allows you to see when a particular issue has started to crop up.

Can ask a developer what changed on the site at the time.



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2. Benchmark each template

Use Page Speed Insights to analyse each template your site has. This helps you spot any particular templates which are causing issues.

Template	Mobile	Desktop	LCP (desktop)	FID (desktop)	CLS (desktop)
Homepage	7	19	4.5s	20ms	1.45
Category	7	18	1.7s	80ms	0.63
Blog	11	43	1.7s	15ms	0.44
Product	1	28	3.6s	87ms	0.5

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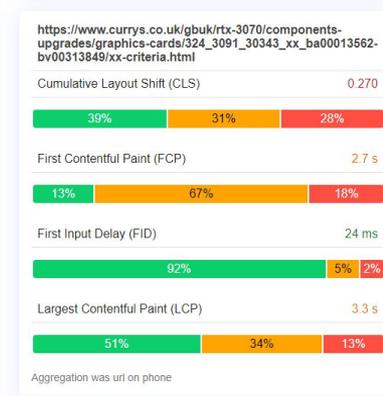
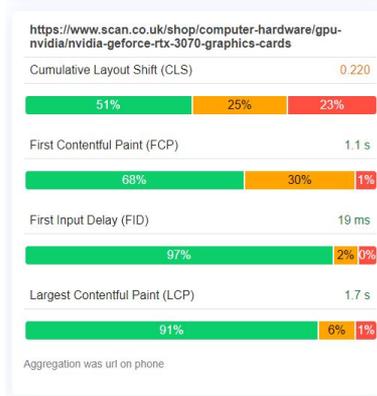
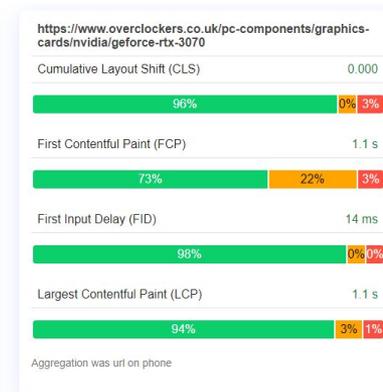
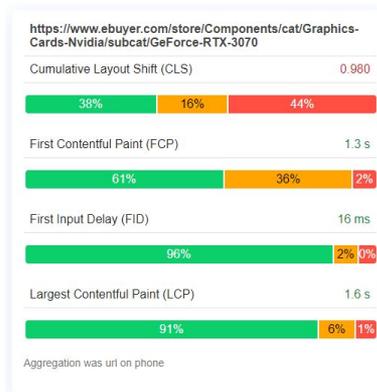
3. Benchmark competitors

Using Netlify you can benchmark individual pages against competitors:

<https://crux-compare.netlify.app/>

This is a great way to get buy in as it clearly shows where some sites are lacking.

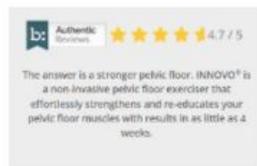
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4. Investigate

Use Chrome Developer Tools to look at where the issues are coming from.

Using the performance tab screenshots is a great way to illustrate issues.



Pads are temporary. We can fix this for good.

80%

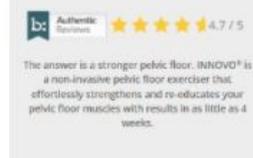
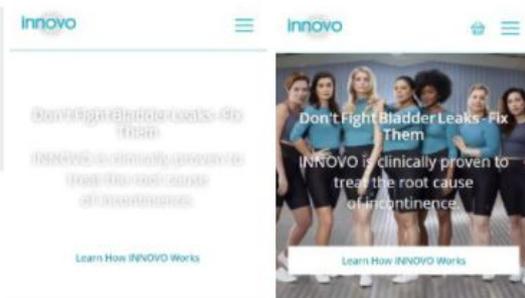
of users saw a significant reduction in leaks after 4 weeks¹

87%

of users were defined as dry or almost dry after 12 weeks²

90%

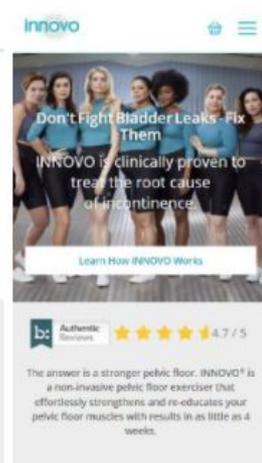
1



Pads are temporary. We can fix this for good.

Ask us a question

2



Pads are temporary. We can fix this for good.

Ask us a question

3

IMPRESSION

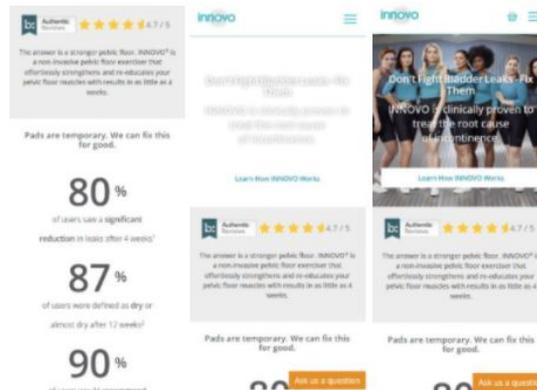
5. Fix

Send these recommendations through to your client/development team and in an easy to read and actionable format.

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Cumulative Layout Shift

There is a large amount of visual instability caused by the lower regions of the page being loaded in before the parts at the top.



In these screenshots from the page load we can see the menu and the banner being loaded in which is pushing down the percentage statistics. These are the HTML elements which are adding to the CLS on the page:

These DOM elements contribute most to the CLS of the page.

Element	CLS Contribution
<code>section#0lock-468842.block.rich-text.text-center.md:text-left.text-block.block-padding.text-grey-dark.bg-grey-light</code>	0.311
<code>section#0lock-468845.block.stat-columns.relative.block-white-bg.block-padding</code>	0.184
<code>section.block.heading.text-block.block-white-bg</code>	0.089

Recommendation

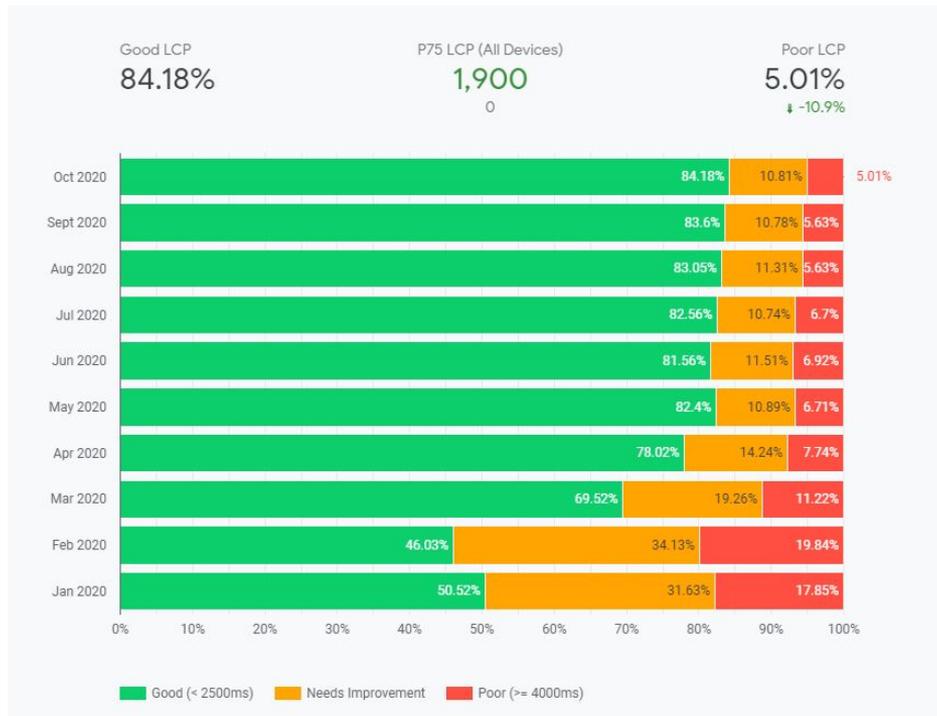
→ Update the HTML to prevent the layout shift occurring based on the elements listed above

6. Measure

Refer back to the CrUX report to identify progress.

This can be shared with any stakeholders and is great way to showcase a 'tech seo win'.

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Takeaways

1

They are coming in May 2021!

3

Use the data you have available

4

Try to understand the issues behind the scores

5

Content is still king!

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Questions?

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Thank you

hello@impression.co.uk

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Nottingham, NG1 2AS

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