MeasureFest

A brightonSEO. fringe event

Interactive Data Studio reporting for Core Web Vitals performance and progress-tracking using Screaming Frog and Sheets

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Skale
@lazarinastoy

Hi.

I am here because I love using Data Studio dashboards.

Also, because Core Web Vitals is really 🔥 right now.

about this talk.

a bit of context

A (short) intro to Core Web Vitals.

Methods and tools for auditing.

about this talk.

the challenge

Pain points in the Core Web Vitals auditing process.

about this talk.

the approach

Introducing an Auditing Data Studio **dashboard**

Going through different **use cases** for site-, section-, and page-level reporting at a glance.

about this talk.

the opportunities

Different ways to supercharge Core Web Vitals reporting in Data Studio.

1

background.

Page Experience as a ranking factor is a thing now. So what?

John @JohnMu · Jun 8, 2020

Replying to @aminedahimene

Working on improving **page experience** can take quite some time, and users appreciate any progress you make, so getting an early start is fine!

“

John @JohnMu · Mar 13

Replying to @blue2blond and @g33konaut

We announced that the **page experience** ranking factor would only apply to mobile, and that we'd use the mobile data for that. The URL doesn't really matter so much.

🍌 **John** 🍌 @JohnMu · Mar 30

Replying to @DanShappir

How do you mean? Technically CWV is a part of the **page experience** factors, which is what we'd use. I think people just focus on CWV because the other elements are not that new.

“

John @JohnMu · Feb 24

Replying to @schachin

We announced that we'd use the "**page experience**" set, which includes the current CWV. There's also some effect of speed on crawling & rendering, which isn't specifically CWV though (used for "search" overall, but not mapped directly to ranking).

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John @JohnMu · Mar 7

Replying to @blogimize @rustybrick and 2 others

It's not focused on the "100%" in Pagespeed Insights, it's based on the thresholds for "good" Core Web Vitals & the other "**page experience**" factors. There's a bit more at developers.google.com/search/blog/20... .

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John @JohnMu · Jun 28

We already use core web vitals as a part of the **page experience** ranking factor, so that's not gonna happen :-).

Also, I expect the factors to evolve over the years, and what people fuss about now to become non-issues. If speed is always high for all sites, I won't complain.

John @JohnMu · Jun 28

Replying to @coryklein

High speed internet connection doesn't mean that a **page** is fast or provides a good user **experience**.

John @JohnMu · Jun 15

Replying to @lilyraynyc

Technically the core web vitals have been launched quite some time ago. You probably mean the **page experience** update. (which, it surprised me, we get right! woot! technically correct ftw)

John @JohnMu · Feb 24

Replying to @schachin

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12%

of mobile pages from over 20K URLs pass the Core Web Vitals assessment (💡)

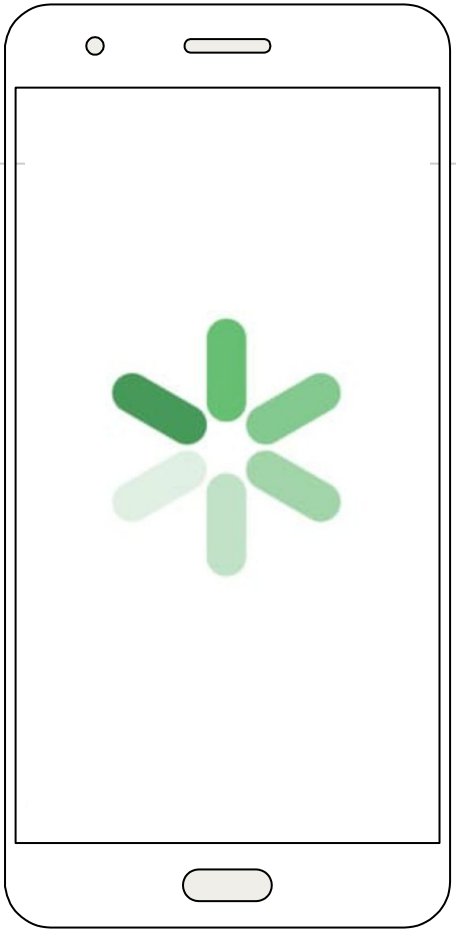
in short...


STEP. IT. UP.

A (quick) recap of Web Vitals

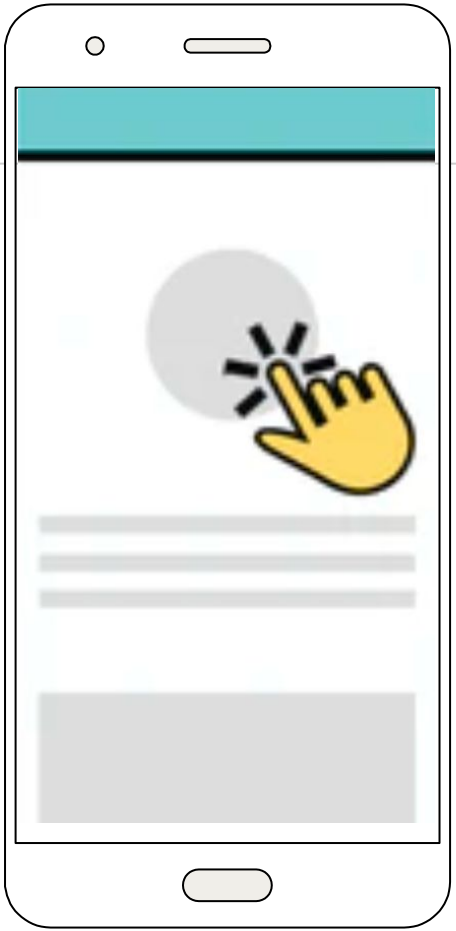
Largest Contentful Paint (LCP)

- Measures loading performance



First Input Delay (FID)

- measures interactivity



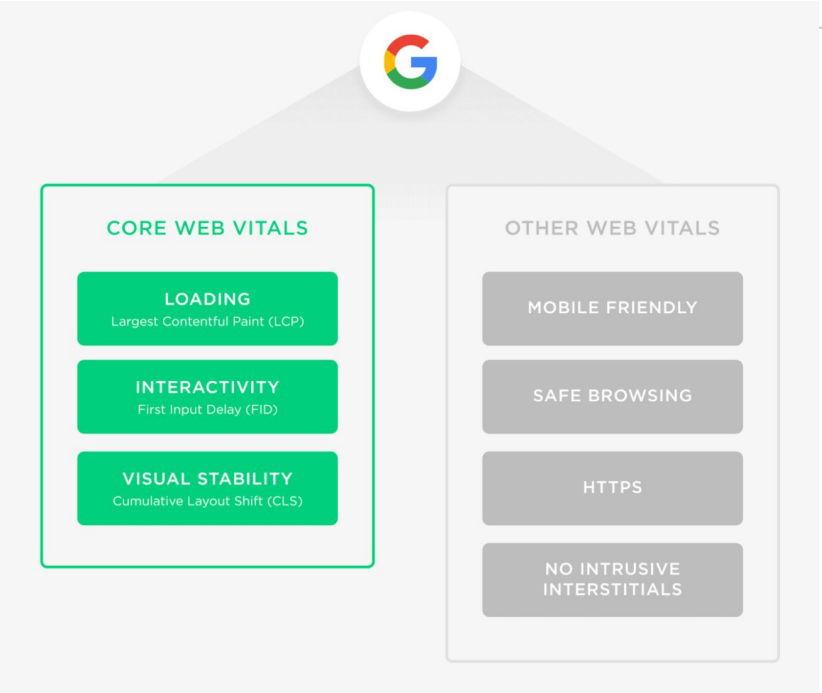
Cumulative Layout Shift (CLS)

- measures visual stability

Other Web Vitals

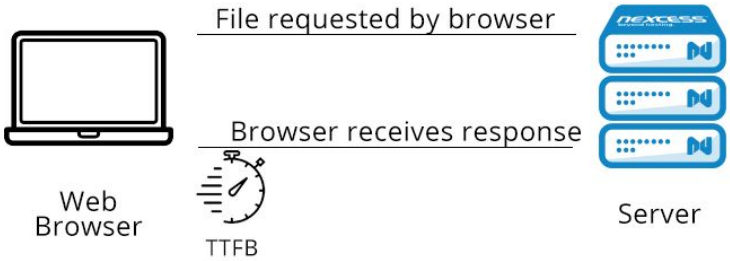
- Mobile-friendliness
- Safe Browsing
- HTTPS
- No Intrusive interstitials

...but especially



Time To First Byte (TTFB)

- measures response speed

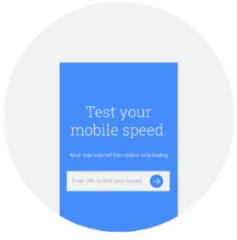


Two types of data to collect.

- Field data – i.e. Real user monitoring (RUM)
- Lab data – i.e. Emulated data

Also, different auditing tools we can use.

PageSpeed Insights



TestMySite

Search Console

WebPage Test

Lighthouse

Chrome Dev Tools

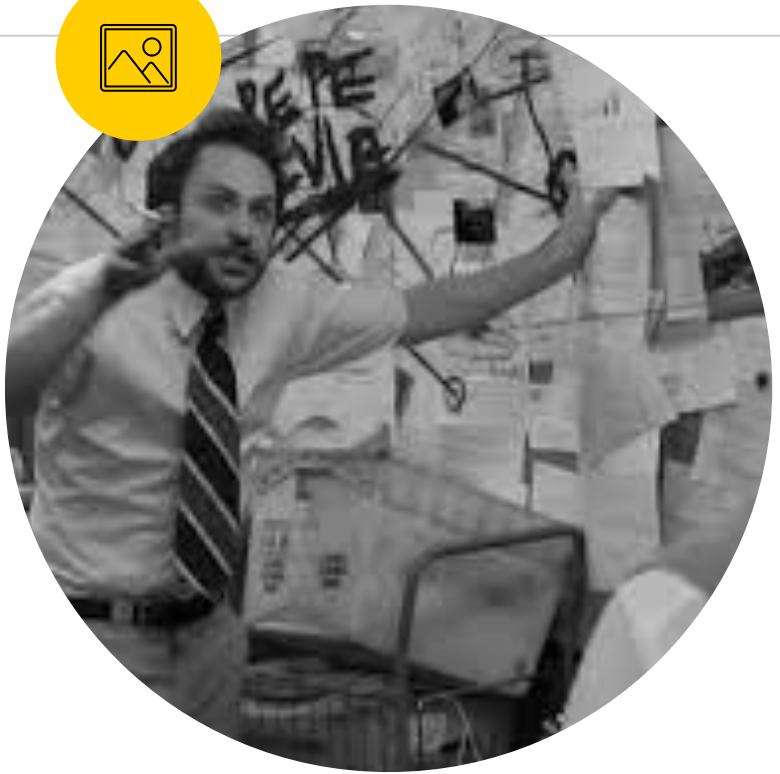
2

the challenge.

With so many tools at our fingertips, what can really be the challenge?

Most tools are not user-friendly for site-wide auditing.

Getting a complete picture for patterns can be difficult.



The result: slow improvements (1/6)

Lack of ability to communicate and prioritize clearly

can't fully observe an issue = difficult prioritization

no urgency = backlog

The result: slow improvements (2/6)

Inability to spot the root cause of the issue

A template? A widget?

The result: slow improvements (3/6)

Inability to delegate appropriately

Organisational silos? Different teams?

Imagine this (a quick detour)...

The result: slow improvements (4/6)

Slow auditing process

Using all tools in practice site-wide is near impossible.

The result: slow improvements (5/6)

Non-actionable

Inability to export & easily create actionable sheets for devs

The result: slow improvements (last one, I promise)

Progress and impact tracking of fixes is ad-hoc

Site-wide auditing and audit comparison unavailable. Testing is ad-hoc.

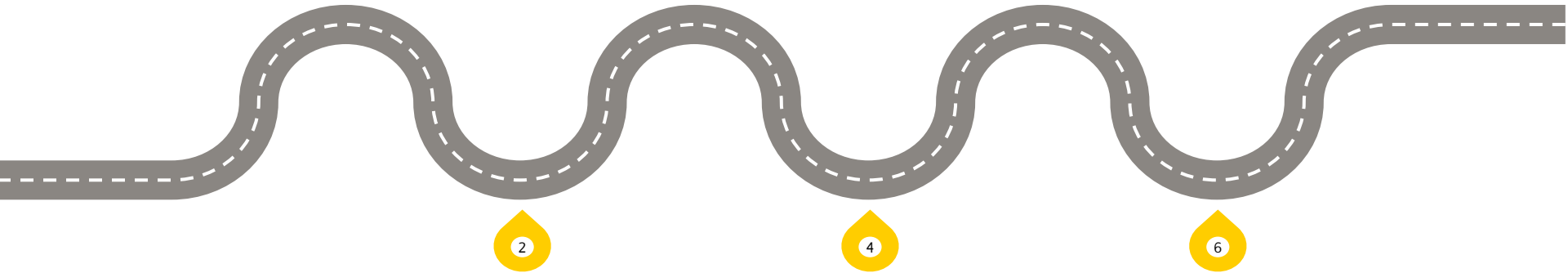
the approach

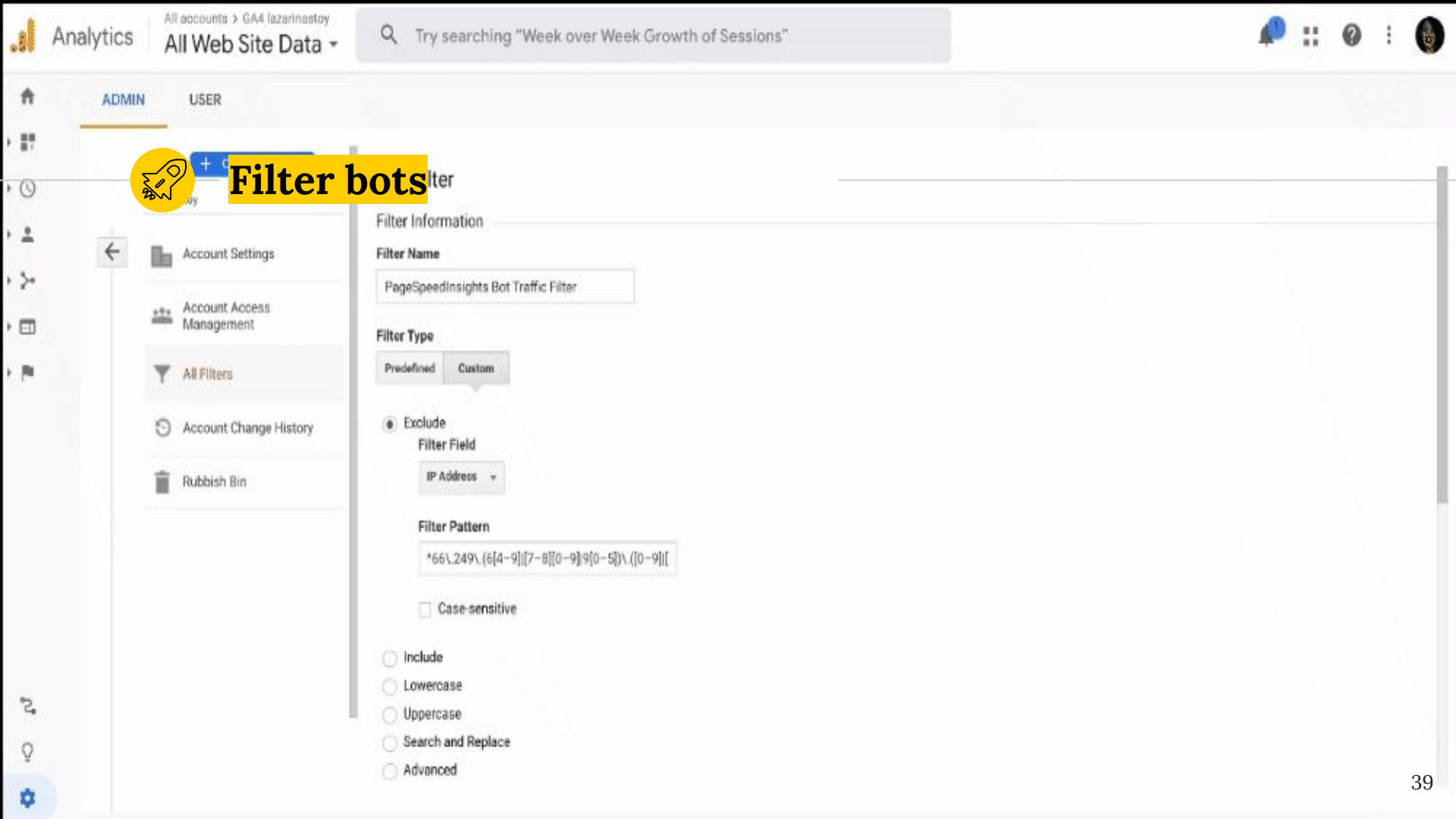
Let's make Core Web Vitals auditing and reporting interactive via a Data Studio dashboard.

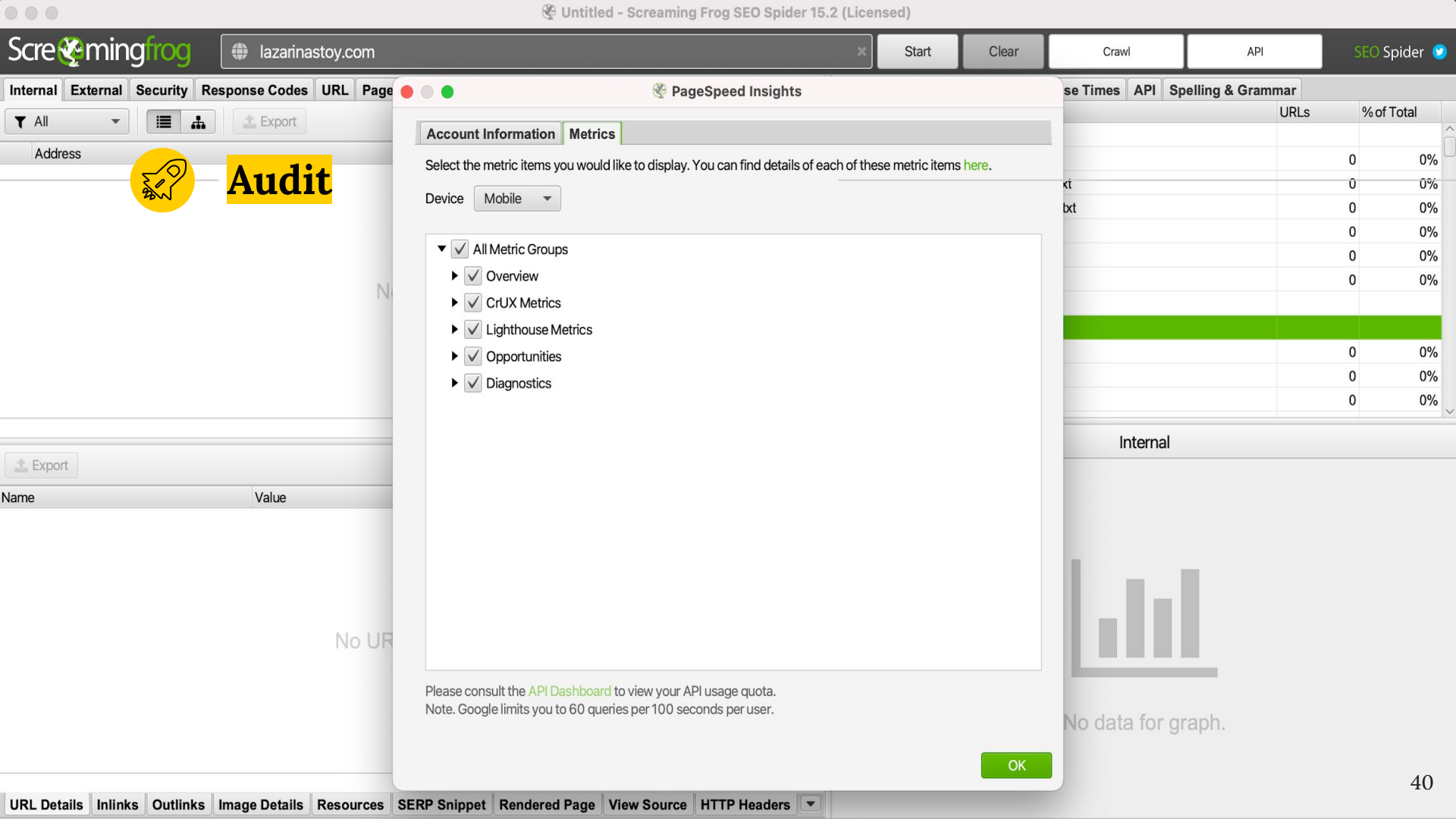
Plug-and-play in three steps

(or more like seven)

1. Filter Pagespeed Insights API traffic in GA
2. Audit Core Web Vitals with Screaming Frog and export the audit data to a Drive spreadsheet.
3. Automate the crawl by setting it up to reoccur.
4. Access & Copy the dashboard template
5. Connect your data
6. (optional) adjust the calculated fields to your site's structure
7. (optional) Monitor change impact




Analytics
All accounts > GA4 lazarinastoy
All Web Site Data
Try searching "Week over Week Growth of Sessions"
ADMIN
USER
Filter bots
Account Settings
Account Access Management
All Filters
Account Change History
Rubbish Bin
Filter Information
Filter Name
PageSpeedInsights Bot Traffic Filter
Filter Type
Predefined
Custom
Exclude
Filter Field
IP Address
Filter Pattern
^66\.249\.(6[4-9]|[7-8][0-9]|9[0-5])\.([0-9]|[
Case-sensitive
Include
Lowercase
Uppercase
Search and Replace
Advanced


Untitled - Screaming Frog SEO Spider 15.2 (Licensed)
Screamingfrog
lazarinastoy.com
Start
Clear
Crawl
API
SEO Spider
Internal
External
Security
Response Codes
URL
Page
Spelling & Grammar
All
Export
Address
Audit
URLs
% of Total
0
0%
Export
Name
Value
Internal
No data for graph.
PageSpeed Insights
Account Information
Metrics
Select the metric items you would like to display. You can find details of each of these metric items here.
Device
Mobile
All Metric Groups
Overview
CrUX Metrics
Lighthouse Metrics
Opportunities
Diagnostics
Please consult the API Dashboard to view your API usage quota.
Note. Google limits you to 60 queries per 100 seconds per user.
OK
URL Details
Inlinks
Outlinks
Image Details
Resources
SERP Snippet
Rendered Page
View Source
HTTP Headers

CORE WEB VITALS AUDITOR

Connect

Copy this report

Select a data source(s) to be added to the new report.

Original Data Source	New Data Source
Sample CWV - Core Web Vitals	Sample CWV - Core Web Vitals
Chrome UX Report	Chrome UX Report

Note that **report editors** can create charts using the new data sources and can add dimensions and metrics not currently included in the report.

Cancel | Copy Report

...he page load timeline when the page's main

...rs feel when trying to interact with unresponsive

...s quantify how often users experience unexpected

...r a user's browser to receive the first byte of page

...PI. Export and save your crawl as a Google Sheet

...SEO auditing process.

PERFORMANCE OVERVIEW

LCP | FID | CLS

PAGESPEED INSIGHTS DATA | PAGESPEED INSIGHTS API | LAB+FIELD DATA

additional tips

get a feel for the site's categories

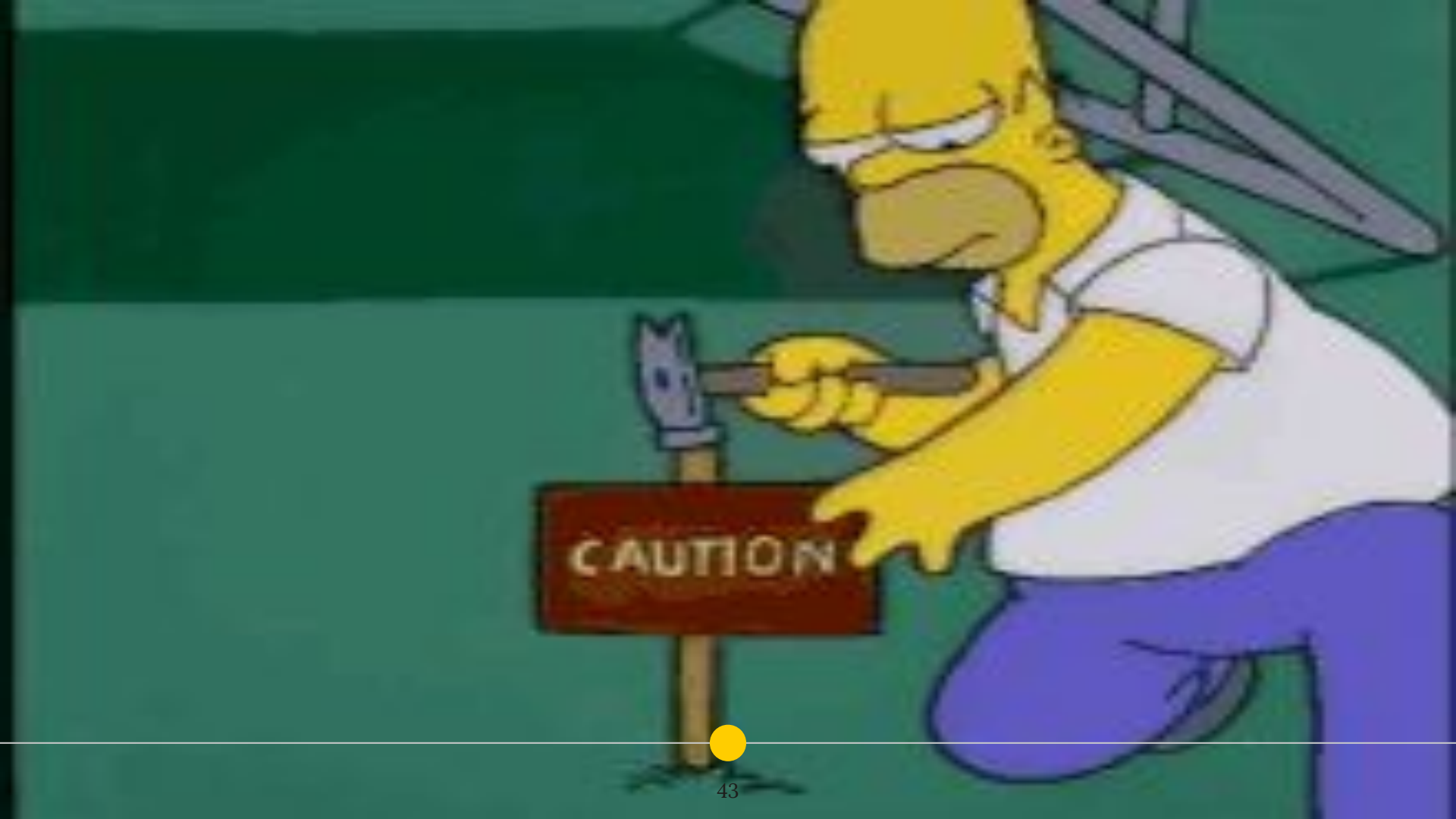
Find out about different themes on the site

check the CMS

Enable yourself to provide focused recommendations

get access to GA

help prioritise on the implementation of recommendations


CAUTION

CORE WEB VITALS AUDITOR

UNDERSTANDING WEB VITALS

LARGEST CONTENTFUL PAINT (LCP)

Largest Contentful Paint (LCP) measures perceived load speed because it marks the point in the page load timeline when the pag
content has likely loaded—a fast LCP helps reassure the user that the page is useful.

FIRST INPUT DELAY (FID)

First Input Delay (FID) measures load responsiveness because it quantifies the experience users feel when trying to interact with u
pages—a low FID helps ensure that the page is usable.

CUMULATIVE LAYOUT SHIFT (CLS)

Cumulative Layout Shift (CLS)Cumulative Layout Shift (CLS) measures visual stability and helps quantify how often users experienc
layout shifts—a low CLS helps ensure that the page is delightful.

TIME TO FIRST BYTE (TTFB)

Time to first byte (TTFB) measures server responsiveness. It represents the time that it takes for a user's browser to receive the first
content

HOW TO USE THIS DASHBOARD:

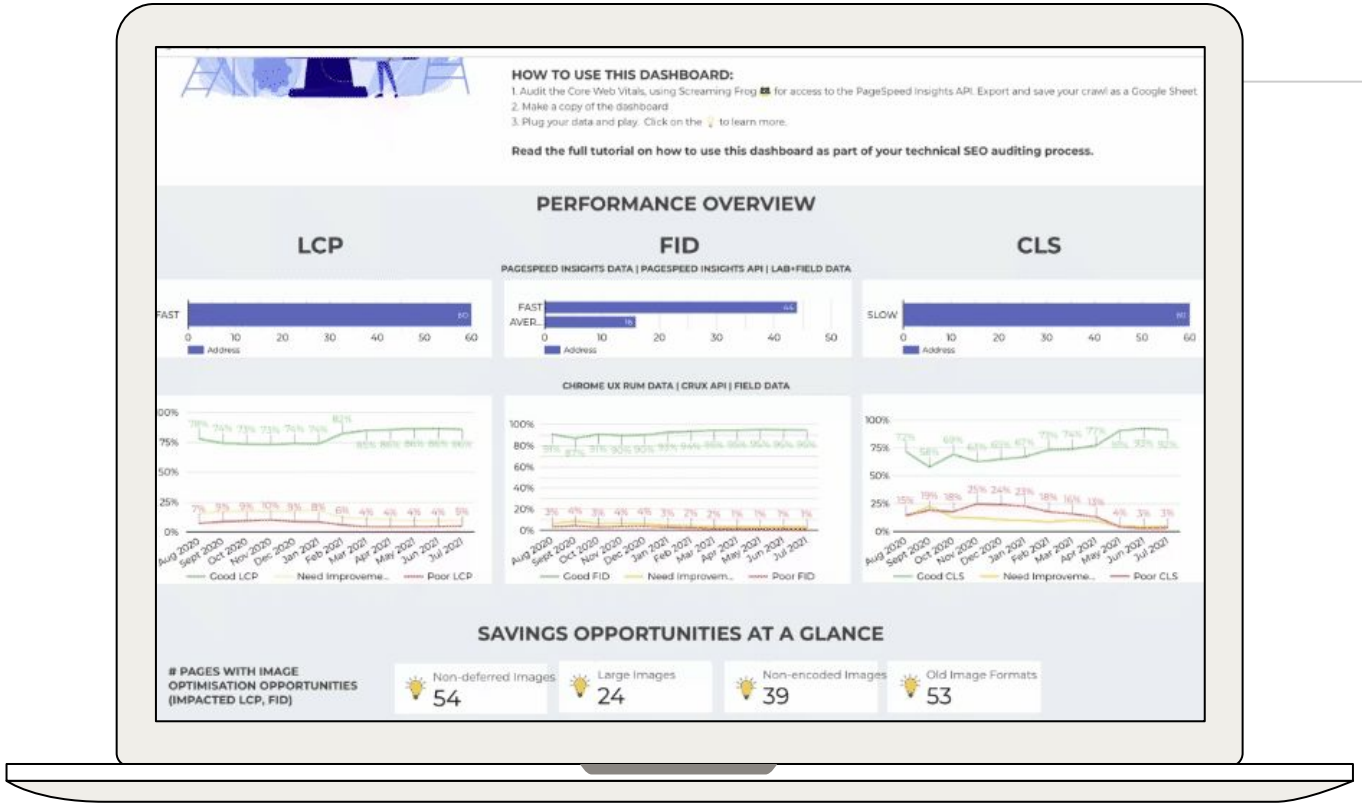
1. Audit the Core Web Vitals, using Screaming Frog for access to the PageSpeed Insights API. Export and save your crawl as a Go
2. Make a copy of the dashboard
3. Plug your data and play. Click on the to learn more.

Read the full tutorial on voila! this dashboard as part of your technical SEO auditing process.

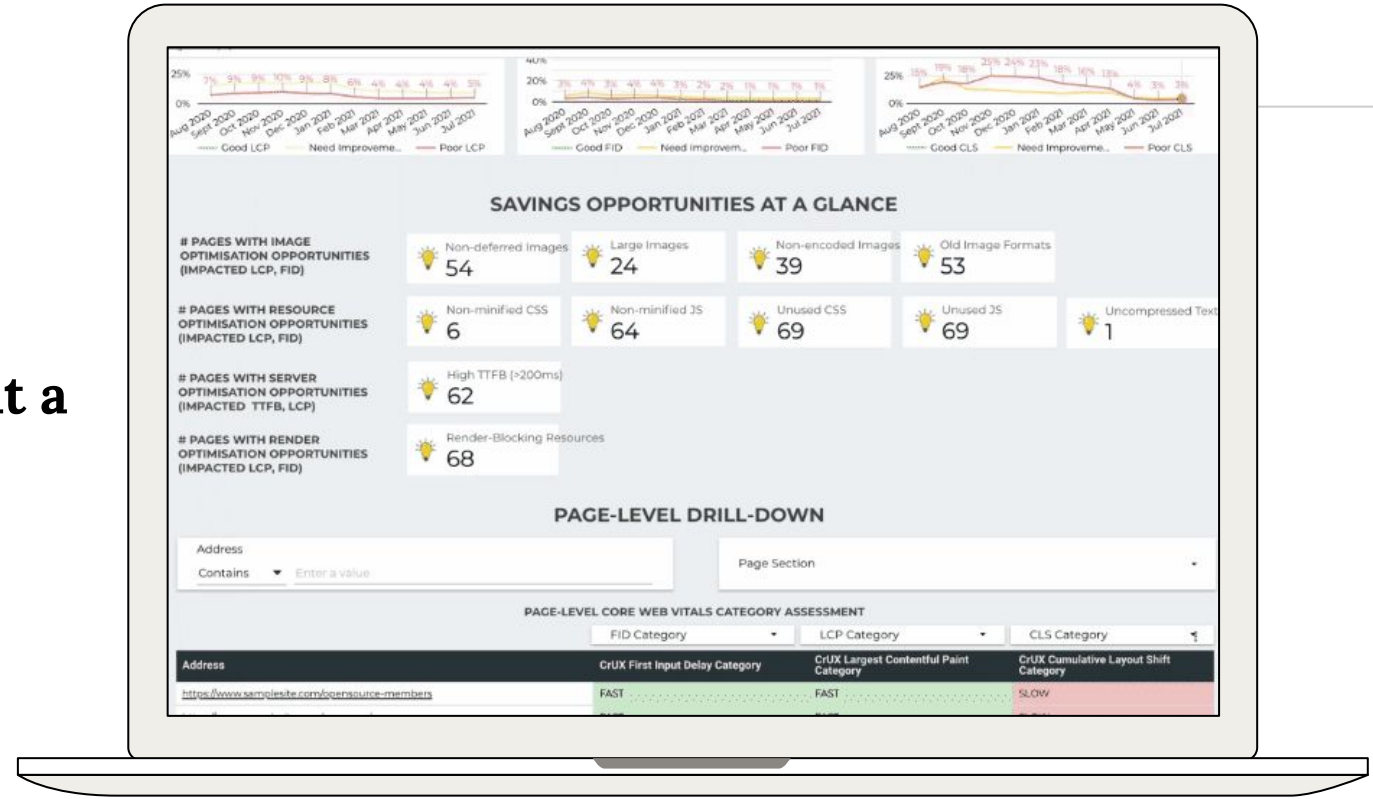
PERFORMANCE OVERVIEW

LCP FID CLS

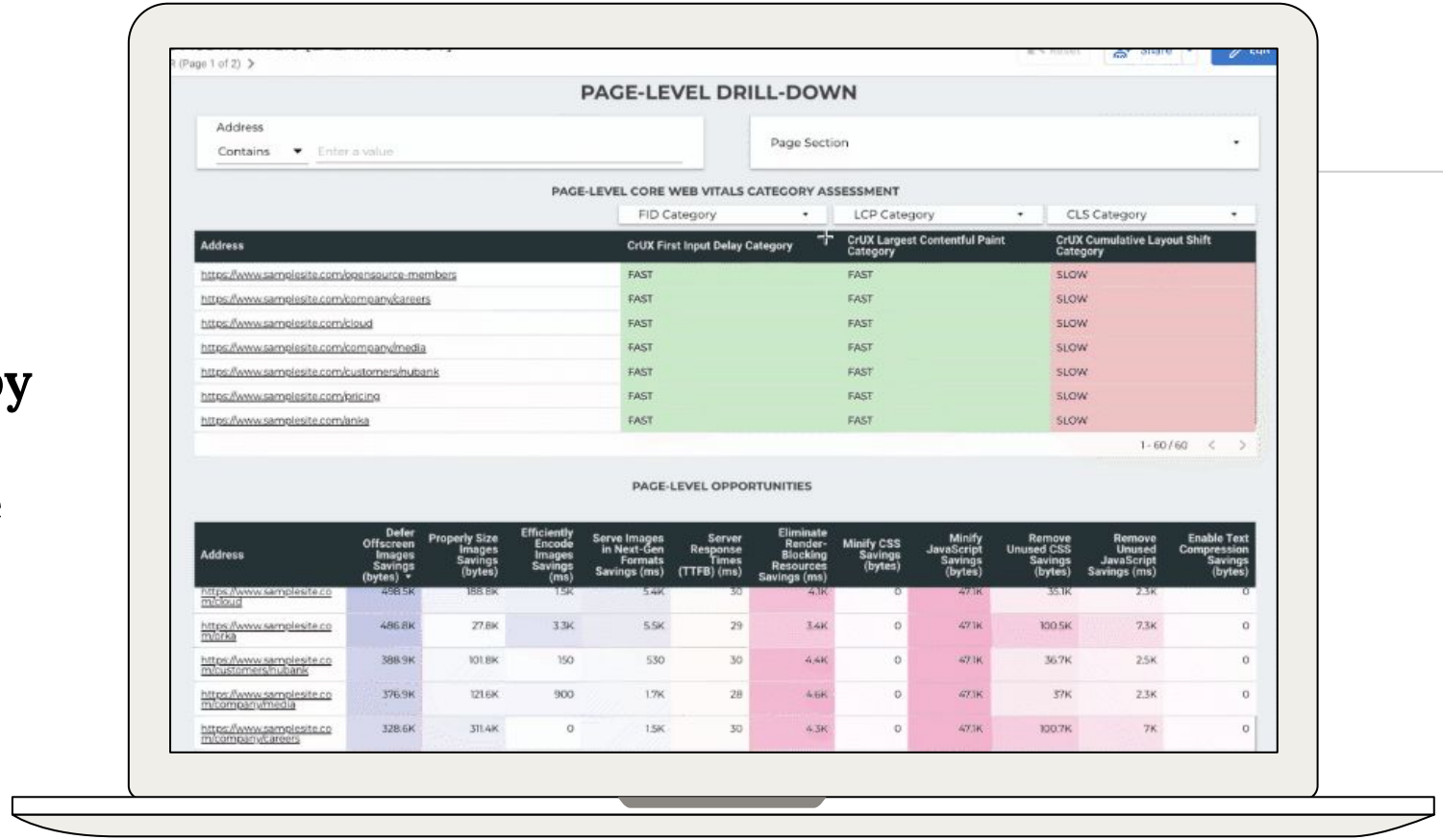
get an overview of site performance



view savings opportunities at a glance



filter pages by metric performance category



sort + filter pages by saving opportunities & values

ps://www.samplesite.com/customers/nubank	FAST	FAST	SLOW
ps://www.samplesite.com/pricing	FAST	FAST	SLOW
ps://www.samplesite.com/anka	FAST	FAST	SLOW

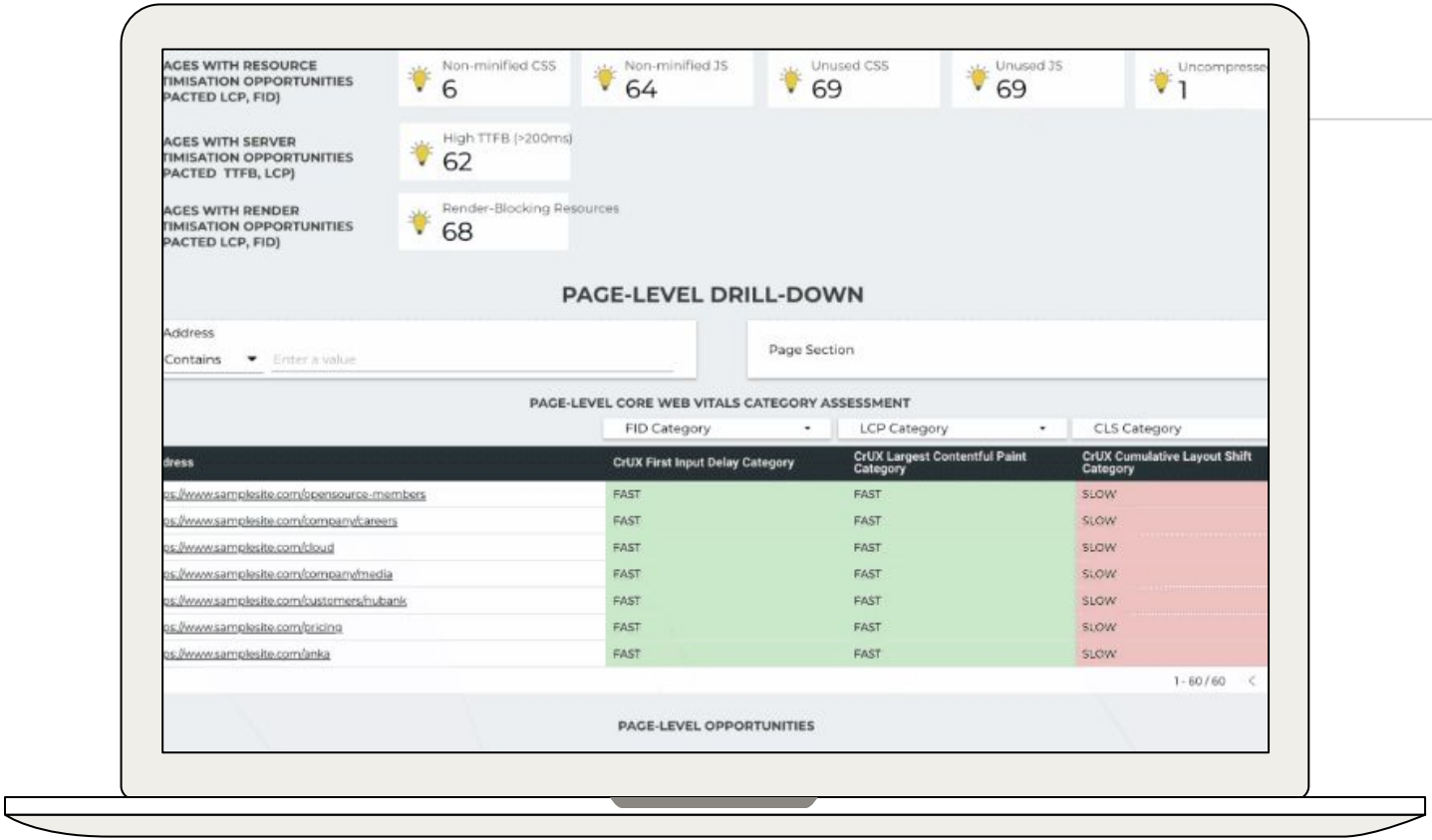
1 - 60 / 60

PAGE-LEVEL OPPORTUNITIES

dress	Defer Offscreen Images Savings (bytes)	Properly Size Images Savings (bytes)	Efficiently Encode Images Savings (ms)	Serve Images in Next-Gen Formats Savings (ms)	Server Response Times (TTFB) (ms)	Eliminate Render-Blocking Resources Savings (ms)	Minify CSS Savings (bytes)	Minify JavaScript Savings (bytes)	Remove Unused CSS Savings (bytes)	Remove Unused JavaScript Savings (ms)	Enable Compres Sav (by
ps://www.samplesite.co cloud	498.5K	188.8K	1.5K	5.4K	30	4.1K	0	47.1K	35.1K	2.3K	
ps://www.samplesite.co orka	486.8K	27.8K	3.3K	5.5K	29	3.4K	0	47.1K	100.5K	7.3K	
ps://www.samplesite.co customers/nubank	388.9K	101.8K	150	530	30	4.4K	0	47.1K	36.7K	2.5K	
ps://www.samplesite.co company/media	376.9K	121.6K	900	1.7K	28	4.6K	0	47.1K	37K	2.3K	
ps://www.samplesite.co company/careers	328.6K	311.4K	0	1.5K	30	4.3K	0	47.1K	100.7K	7K	
ps://www.samplesite.co company	311.5K	0	0	150	29	3.4K	0	47.1K	100.7K	4.6K	
ps://www.samplesite.co company/team	309.1K	5.2K	0	5K	29	4.6K	0	47.1K	36.5K	2.6K	
ps://blog.samplesite.co 758097640_page=3	279.4K	0	1.5K	5.3K	30	4.5K	0	47.1K	19.4K	2.3K	
ps://www.samplesite.co recorded-webinars	274.9K	0	990	3.1K	27	4.3K	0	47.1K	36.4K	2.4K	
ps://www.samplesite.co resources	261.7K	0	150	1.1K	98	3.4K	0	47.1K	101K	20.8K	

1 - 70 / 70

filter pages based on keywords in the URL




The possibilities are
pretty much endless.

Merge with GA data for prioritisation, based on page visits, new users, or conversion metrics

supercharge the dashboard & make it your own

- Create groups of pages, based on website section templates

supercharge the dashboard & make it your own

Incorporate a performance-tracking sheet for changes and map out the impact of changes

supercharge the dashboard & make it your own

Incorporate ChromeUX data for competitors and monitor how they are evolving over time

supercharge the dashboard & make it your own


I NEED TO KNOW DETAILS

Before I wrap up...


tIPS

Don’t be scared of seeing null values in the Chrome UX report, implement best practices nonetheless

Overcome the data freshness issues via Screaming Frog

Set your crawl to reoccur

Be wary of Google Data Studio's limitations.

Ask your devs to include a date for the implementations in the progress tracking sheet.

Use dashboards interactively with your stakeholders

Thank you.

Anything you want to add?

Ping me at

- @lazarinastoy

Resources

Here are the resources you will need:

- Dashboard template
- Step-by-step guide on the complete set-up implementation and additional tips
- A link to Rachel Anderson's approach to competitor CWV research

Credits

Special thanks to all the people who create awesome resources for free:

- Presentation template by SlidesCarnival