

#WEEKLYSEO

GUEST



Adem Yildiz



Lazarina Stoy

Data Studio for SEOs: Reporting Automation Tips, Tricks, and Templates

Who is Lazarina Stoy?



- I'm a Technical SEO & Innovation Manager
- I'm also a Freelancer in Growth & Analytics
- I dabble in Data Science more frequently now than ever
- I work with clients from different niches, with different site size, and different problems
- Working with data helps recognizing patterns (and I love it!)



Fun fact about Lazarina

- Loves animals and plants (living with 🐶🐱🐱)
- Practiced karate for more than 10 years
- Loves swimming and yoga
- Worked in Hospitality in 3 countries (over 7 years!)
- Used to collect mugs (had to abandon my collection)



What We Will Cover?

The goal of these sessions is to keep you updated on the SEO industry.

- Data Studio Benefits & Limitations
- Reporting Automation Tips & Tricks
- How to Turn Spreadsheets into Beautiful Reports
- Templates You Should Add To Your Arsenal



Are you guilty of any of these?

“I’m not really that good with data.”

“Not really an analytics person, myself.”

“I wish I have more time for fun automation and advanced tech projects... but I’m too busy.”

“I manually report on data in spreadsheets, or slides each week/month”

Meet Data Studio.

Your New Best Friend



Access your data from 800+ data sets from over 490 connectors.

Search connectors...

Featured

Marketing Templates

Community

Community Visualizations

Submit your report

Featured Data Studio reports

Search reports...



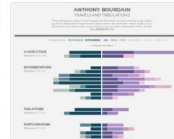
All-in-one Search Console ...
By Data Bloo

Explore your Google Search Console data and identify areas for improvement in your SEO strategy.



Ecommerce Revenue Temp...
By Data Bloo

Monitor your Ecommerce revenue in one place and easily compare it to a previous period or year.



Anthony Bourdain: Travels ...
By Marc Soares

Visualizing the countries and continents visited by Anthony Bourdain.

<https://datastudio.google.com/gallery>



Benefits

Why even bother?

- Visualise data any way you want, **easily**
- Pull data from **multiple sources**.
- Blending data sources for enhanced understanding.
- **Share & export** Data Studio reports easily.
- **Easy-to-read & pretty** to look at
- **Dynamic** reporting
- **Fresh** data, at the tip of your fingers
- Build **interactive** experiences.
- Use **free** Data Studio **templates**
- Very **easy to learn** with free Google Data Studio **tutorials**.

<https://www.webfx.com/blog/marketing/what-is-google-data-studio/>




Limitations

Things you need to know about

- **No more than 5 data sources for blending, all of which should share a joining key.**

An alternative would be to blend data offline and use automation tools to ease the process.

- **Incorporating many data sources will likely cause reports to break.**
- **Beware of sampling**
- **Errors when copying filters**
- **The useability of connectors highly depends on their internal database schema.**

An alternative would be to use APIs, instead of connectors, whenever possible (**learn how here** ).

- ~~**Data Blending uses left outer join.**~~

~~As a workaround, perform complex data augmentations in GSheets or Big Query, depending on the size and complexity of the data and your infrastructure capacity.~~

<https://lazarinastoy.com/data-studio-limitations/>

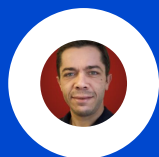




Update

Yesterday, Data Studio
Announced 4 new blending
Options 🔥


(also, follow this DS wizard:
Mehdi Oudjida
[@wissi_analytics](https://www.instagram.com/wissi_analytics))



INNER JOIN		Only returns rows that meet the join condition
RIGHT OUTER JOIN		Returns all rows from the table on the right side of JOIN and matched rows from the left side of the JOIN
LEFT OUTER JOIN		Returns all rows from the table on the left side of JOIN and matched rows from the right side of the JOIN
FULL OUTER JOIN		Returns all rows from both sides even if join condition is not met
CROSS JOIN		Cartesian product between the two sides is a join but without a join condition. Returns all rows joined from both sides

INNER JOIN	RIGHT EXCLUSIVE	LEFT INCLUSIVE	FULL OUTER INCLUSIVE	FULL OUTER EXCLUSIVE

[https://medium.com/@lazarinastoy/data-studio-introduces-new-dat
a-blending-options-a-game-changer-for-data-visualisation-627c725
d98c3](https://medium.com/@lazarinastoy/data-studio-introduces-new-data-blending-options-a-game-changer-for-data-visualisation-627c725d98c3)







Quick Wins

Tips and tricks for a flying start 



<https://www.lazarinastoy.com/>



Quick Wins (1)

Extract Brand Name from URL

Use cases:

- SERP Analysis
- Competitor Analysis

Field Name

Brand Name

Field ID

calc_257yblc7rc

Formula 

```
1 TRIM(REGEXP_EXTRACT(REGEXP_REPLACE(REGEXP_REPLACE(URL, "https?://", ""), R"^(w{3}\.)?", ""), "[^/?]+"))
```



Quick Wins (2)

Field Name

Rank Absolute (buckets)

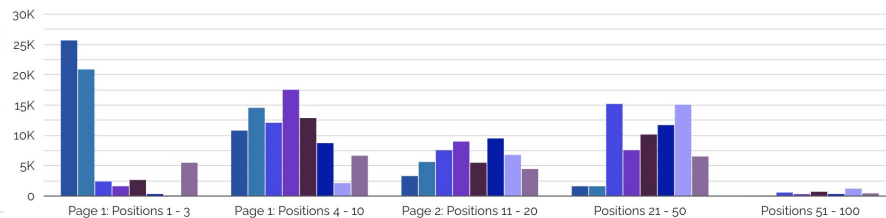
Formula ?

```
1 case
2 when REGEXP_MATCH( Rank Absolute , "1|2|3") then "Page 1: Positions 1 - 3"
3 when REGEXP_MATCH( Rank Absolute , "4|5|6|7|8|9|10") then "Page 1: Positions 4 - 10"
4 when REGEXP_MATCH( Rank Absolute , "11|12|13|14|15|16|17|18|19|20") then "Page 2: Positions 11 - 20"
5 when REGEXP_CONTAINS( Rank Absolute , "[21-50]") then "Positions 21 - 50"
6 when REGEXP_CONTAINS( Rank Absolute , "[51-100]*") then "Positions 51 - 100"
7 end
```

Bucket Position Results into Groups

Use cases:

- SERP Analysis
- GSC Analysis
- Competitor Analysis





Quick Wins (3)

Extract URL Top-Level Directory

Use cases:

- SERP Analysis
- Competitor Research

Field Name

Top Level Directory

Formula 

```
1 REGEXP_EXTRACT( URL , '^https://[^\s]+/([^\s]+)/' )
```



Page Section Segmentation

Quick Wins (4)

Use cases:

- GSC Analysis
- URL Inspection
- Website Analytics

Field Name: Page Section
Field ID: calc_uqy6gzyxrc

Formula ?

```
1 case
2 when REGEXP_CONTAINS(Address, "blog") then "Blog Posts"
3 when REGEXP_CONTAINS(Address, "white-papers|news|case-studies|insights") then "White papers, Case studies, News, Insights"
4 when REGEXP_CONTAINS(Address, "careers|about-us|contact|job-opportunities|clients|reviews|our-work|our-team|join-team") then "Branded Pages"
5 when REGEXP_CONTAINS(Address, "hospitality-travel-tourism|expertise|economic-development|energy|higher-education|technology|financial-services") then "Services Pages"
6 when REGEXP_CONTAINS(Address, "tag") then "Tag Pages"
7 when REGEXP_CONTAINS(Address, "/page") then "Paginated"
8 else "Unclassified"
```

Page Section Record Cou...

🔍 Type to search

<input checked="" type="checkbox"/> White papers, Case studie...	353
<input checked="" type="checkbox"/> Unclassified	20
<input checked="" type="checkbox"/> Tag Pages	711
<input checked="" type="checkbox"/> Services Pages	27
<input checked="" type="checkbox"/> Branded Pages	19
<input checked="" type="checkbox"/> Blog Posts	1.5K



<https://lazarinastoy.com/google-search-console-url-inspection-api-in-data-studio-free-dashboard-template/>



Quick Wins (5)

Clicks / No-click Pages

Use cases:

- GSC Analysis
- URL Inspection
- Website Analytics

Field Name

Pages with / without clicks

Field ID

calc_kyu0ehyxc

Formula 

```
1 case when Clicks >0
2 then "pages with clicks"
3 else "pages without clicks"
4 end
```

<input checked="" type="checkbox"/> Pages with / ...	Record Cou...
<input type="text" value="Type to search"/>	
<input checked="" type="checkbox"/> pages without clicks	ONLY
<input checked="" type="checkbox"/> pages with clicks	106



Quick Wins (6)

URL Language Filter

Use cases:

- GSC Analysis
- Website Analytics
- SERP Analysis
- Competitor Research

Field Name

Lang Filter

Formula 

```
1 CASE
2 WHEN CONTAINS_TEXT( Landing Page , "/es/" ) THEN "Spanish"
3 WHEN CONTAINS_TEXT( Landing Page , "/fr/" ) THEN "French"
4 WHEN CONTAINS_TEXT( Landing Page , "/de/" ) THEN "German"
5 else "English" end
```

<input checked="" type="checkbox"/> Lang Filter	Url Clicks
---	------------

 Type to search

<input checked="" type="checkbox"/> English	10.2K
<input checked="" type="checkbox"/> German	866
<input checked="" type="checkbox"/> French	420
<input checked="" type="checkbox"/> Spanish	0





Search Intent Classification

Quick Wins (7)

Use cases:

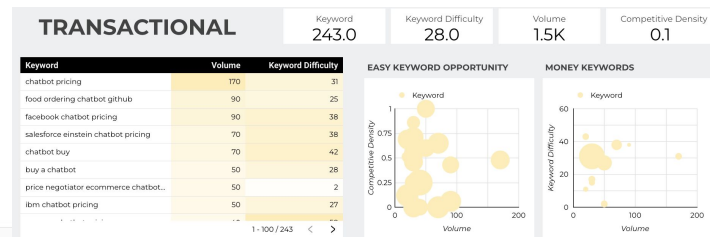
- SERP Analysis
- GSC Analysis
- Keyword Research
- Content Creation

Name
Transactional Search Intent

 text-mining_broad-match_us_2021-05-...

Include ▼ **ABC** Keyword ▼ RegExp Contains ▼ buy|price|cheap|expensive|recommendation|recommended|near me|firm|coupon|ord

AND





Quick Wins (8)

Branded Vs Non-branded Keywords Split

Use cases:

- GSC Analysis
- Website Analytics
- Keyword Research...

Field Name

Branded vs Non-branded

Field ID

calc_aojap104pc

Formula 

```
1 case
2 when REGEXP_CONTAINS(mcf.keyword, 'alaya') then "Branded"
3 when REGEXP_CONTAINS(mcf.keyword, '(not provided)|(not set)|(unavailable)') then "Not specified"
4 else "Non-Branded"
5 end
```

<input checked="" type="checkbox"/> Branded vs Non-branded	mcf:totalConversions
<input checked="" type="checkbox"/> Not specified	846
<input checked="" type="checkbox"/> Non-Branded	164
<input checked="" type="checkbox"/> Branded	3



Turning spreadsheets into dashboards



(or otherwise)

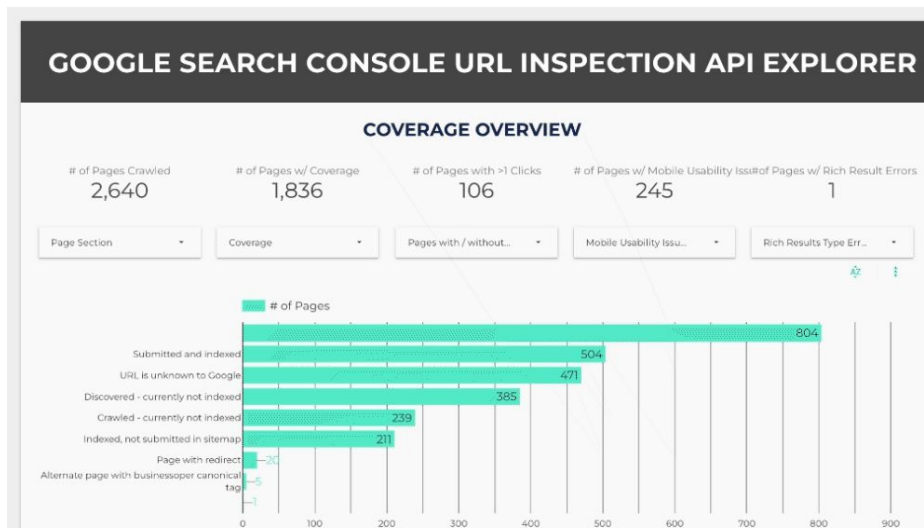


<https://lazarinastoy.com/>

(from)

Address	Status Code	Title	Indexability	Indexability Status	Clicks	Impressions	CTR	Position	URL Inspection / URL Inspection / Summary	Coverage	Last Crawl
https://sample.com/	200	Sample Business Public Rate	Indexable		504	17006	0.0303	63.06	SUCCESS	URL is on Google Submitted and v-	2022-01-08TC
https://sample.com/hospitality-travel-tourism/	200	Hospitality, Travel & Tourism	Indexable		0	364	0	64.16	SUCCESS	URL is on Google Submitted and v-	2022-01-10TC
https://sample.com/white-papers/	200	White Papers Archives - Sam	Indexable		0	8	0	33.25	SUCCESS	URL is on Google Indexed, not su-	2022-01-06TC
https://sample.com/news/career-development-public-relations-man	200	Sample Business Public Rel	Indexable		5	140	0.0367	46.29	SUCCESS	URL is on Google Submitted and v-	2022-01-30TC
https://sample.com/expertise/	200	Expertise - Overview - Sampl	Indexable		2	230	0.0087	69.77	SUCCESS	URL is on Google Submitted and v-	2022-01-07TC
https://sample.com/careers/	200	Careers - Sample Business F	Indexable		31	1333	0.0233	6.67	SUCCESS	URL is on Google Submitted and v-	2022-01-24TC
https://sample.com/economic-development/	200	Economic Development - Sa	Indexable		0	76	0	60.27	SUCCESS	URL is on Google Submitted and v-	2022-01-18TC
https://sample.com/about/	200	About Us - Sample Business	Indexable		85	6602	0.1929	34.55	SUCCESS	URL is on Google Submitted and v-	2022-01-28TC
https://sample.com/contact/	200	Contact Us Sample Busines	Indexable		1	361	0.0028	3.24	SUCCESS	URL is on Google Submitted and v-	2022-01-12TC
https://sample.com/blog/the-business-cases-for-pilgrimage/	200	The Business Cases for Pilgr	Indexable		0	19	0	26.11	SUCCESS	URL is on Google Submitted and v-	2022-01-28TC
https://sample.com/news/career-development-multiple-hot	200	Sample Business Resumes & I	Indexable		2	43	0.0465	21.19	SUCCESS	URL is on Google Submitted and v-	2022-01-11TC
https://sample.com/blog/keys-to-business-coding-your-em	200	Keys to business-coding you	Indexable						SUCCESS	URL is not on G/ Discovered - car	1970-01-01TC
https://sample.com/blog/	200	Some Name Blog Archives	Indexable		17	1163	0.0144	16.24	SUCCESS	URL is on Google Submitted and v-	2022-01-30TC
https://sample.com/blog/business-outlook/	200	Top-Arr Busines Archives -	Indexable						SUCCESS	URL is not on G/ URL is unknown	NA
https://sample.com/news/career-development-business-outlook	200	Sample Business Resumes & I	Indexable						ERROR	Rated timed out	
https://sample.com/energy/	200	Energy & Utility Marketing - S	Indexable		2	2297	0.0099	68.37	SUCCESS	URL is on Google Submitted and v-	2022-01-19TC
https://sample.com/agency/	200	Agency News Archives - Sam	Indexable		1	240	0.0042	9.42	SUCCESS	URL is on Google Indexed, not su-	2022-01-21TC
https://sample.com/blog/sarah-kelher/	200	Sarah Kelher Archives - Sar	Indexable		1	126	0.0079	9.17	SUCCESS	URL is on Google Indexed, not su-	2022-01-20TC
https://sample.com/higher-education/	200	Higher Education - Sample B	Indexable		0	20	0	20.8	SUCCESS	URL is on Google Indexed, not su-	2021-11-15TC
https://sample.com/case-studies/	200	Case Studies Archives - Sam	Indexable		0	23	0	48.78	SUCCESS	URL is on Google Indexed, not su-	2022-01-30TC
https://sample.com/technology/	200	Technology - Sample Busines	Indexable		1	92	0.0090	33.03	SUCCESS	URL is on Google Submitted and v-	2022-01-11TC
https://sample.com/blog/you-never-know-who-you-know/	200	You Never Know Who You Ki	Indexable		0	33	0	26.24	SUCCESS	URL is on Google Submitted and v-	2022-01-27TC
https://sample.com/it/	200	Agency News Archives - Sam	Indexable	Restricted	0	34	0	54.26	SUCCESS	URL is not on G/ Page with redire	2021-08-23TC
https://sample.com/it/	200	Stenap - Sample Business -	Indexable		0	34	0	54.26	SUCCESS	URL is on Google Submitted and v-	2022-01-18TC
https://sample.com/expertise/	200	Our Work Sample Business	Indexable		11	767	0.0143	20.67	SUCCESS	URL is on Google Submitted and v-	2022-01-13TC
https://sample.com/blog/seo-essentials/	200	Kate Esobar - Abundance Ar	Indexable		17	88	0.1932	7.75	SUCCESS	URL is on Google Indexed, not su-	2022-01-31TC
https://sample.com/blog/social-media-measurement/	200	Social Media Measurement #	Indexable						SUCCESS	URL is not on G/ Discovered - car	1970-01-01TC
https://sample.com/influencer-reputation-management/	200	Reputation Management And	Indexable						SUCCESS	URL is not on G/ Discovered - car	1970-01-01TC

(to)



Turning Spreadsheets into dashboards



1

Access & Explore Data

Access your data, import into the dashboard and **explore it**. How many columns does it have? What type of data is in each column?, what is the most important thing to take away from each column (KPIs)?

2

Analyse the Data & Build Support

Create a table with Raw Data, **analyse it**. Find out what additional fields you need to best communicate findings (Use the custom dimensions from previous fields). Here you should aim to **tell a story** through the data.

3

Split by Sections, Visualise

Split the dataset by Sections and answer the key questions your stakeholder might have for the data via scorecards. Visualise the rest of the data, using a chart that corresponds to the data type.

Is exploration needed? → Use a Pivot chart or Table.
Is an overview enough? → Use a visualisation

4

Customise Marcos, Colour & pretty-fy

Now you are done building, ensure there are appropriate filters to assist the interactivity of the dashboard. Make the colour scheme consistent and ensure the layout is logical and user-friendly.

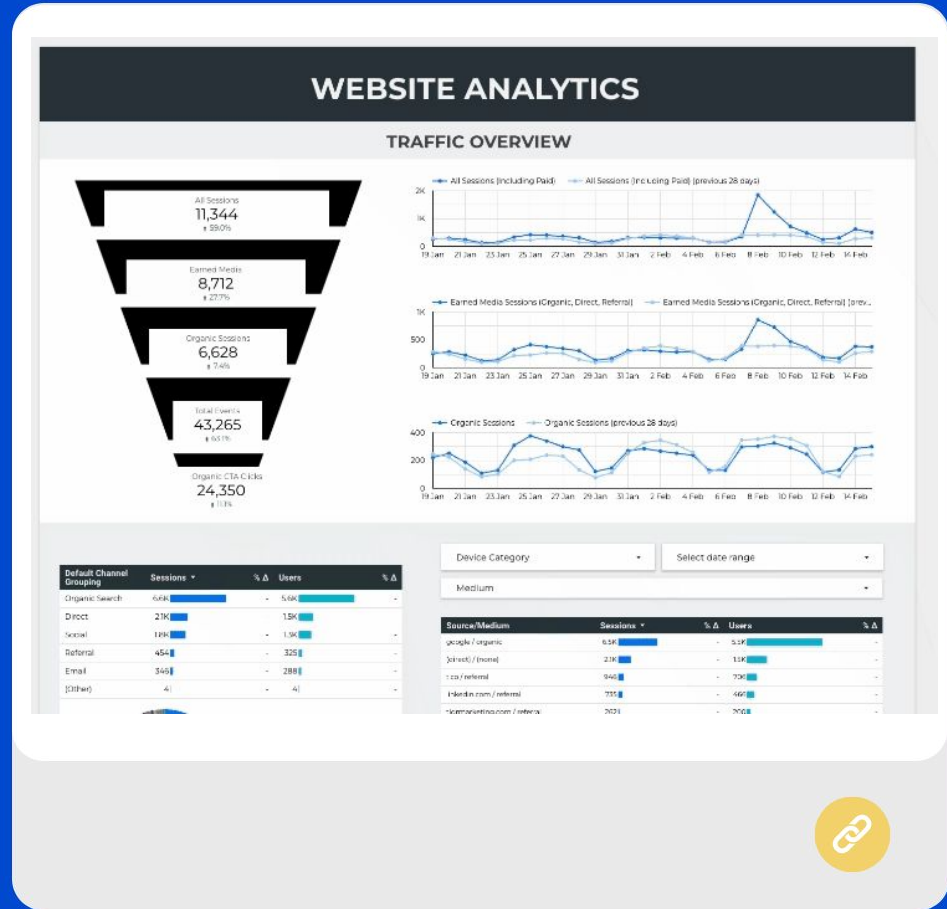


Now let's get to the fun part.



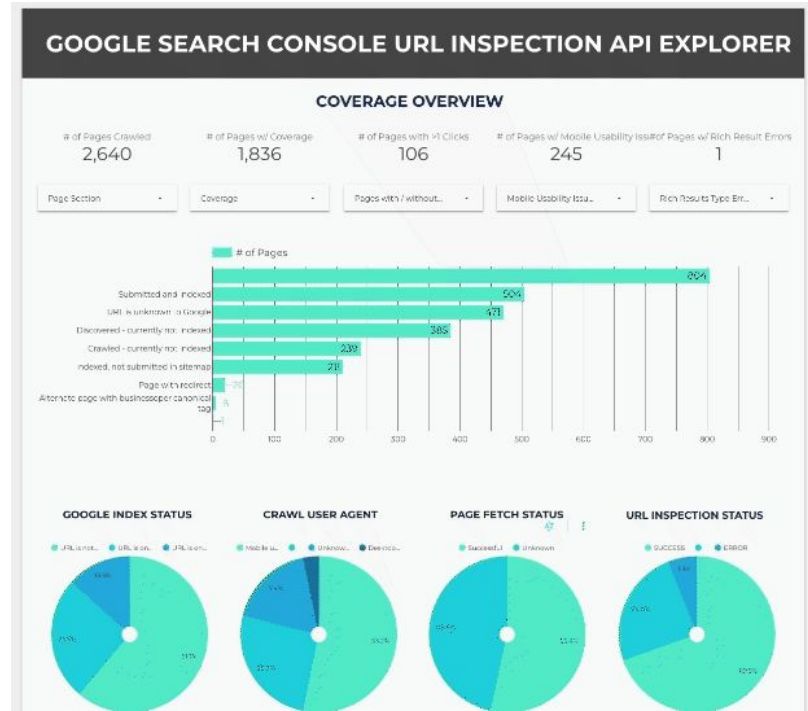
Website & Search Analytics?

Visualise it.



URL Inspection API Data?

Visualise it.

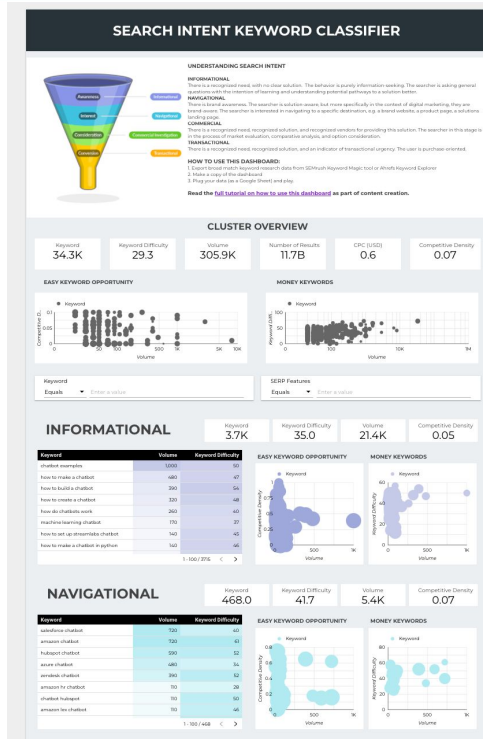


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Search Intent Keyword Research?

Visualise it.

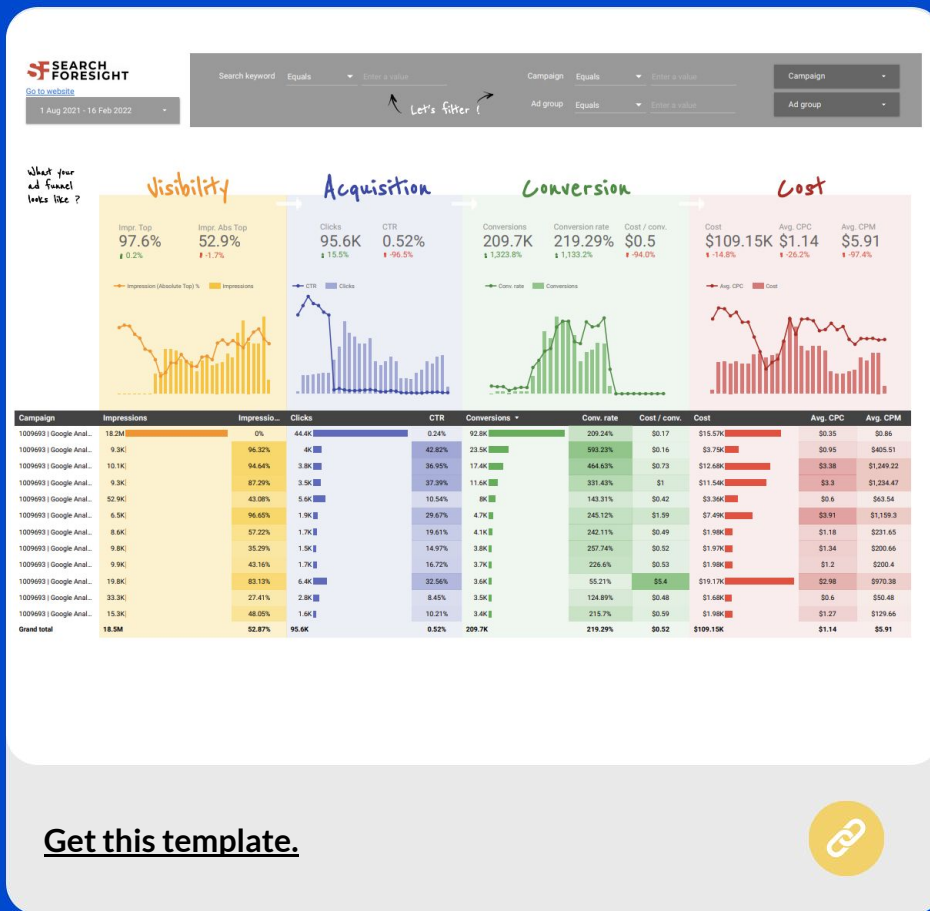


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Google Ads data?

Visualise it.



Site Crawl?

Visualise it.

Shout out to [@aalicerousse!](#)



Visualising crawl data from screening frog

Read me

Crawl overview

Search performances

Accessibility

Technical performances

Mobile performances

Internal links

Content

Explorer

Crawl overview

URLs crawled: 210

Pages crawled: 31

Crawl depth: 4

Segmentation to fit to your needs

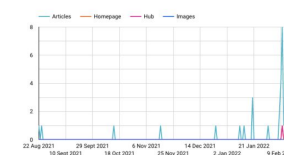
- Articles
- Homepage
- Hub
- Images

1 / 4 >

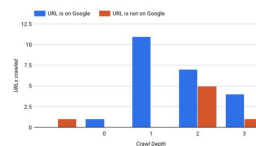
ORPHAN PAGES OVERVIEW BY SOURCES



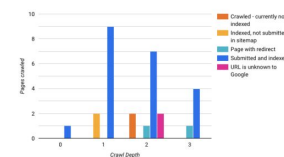
GOOGLE DATE OF LAST CRAWL BY PAGE GROUPS



GOOGLE SEARCH RESULTS BY CRAWL DEPTH



GOOGLE COVERAGE BY CRAWL DEPTH



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Site Crawl?

Visualise it (and automate the data pulls, easy! ★)

Shout out to [@screamingfrog](#)



Crawl Overview Report

Summary

Response Codes

URL Types

Indexability

Site Structure

On-Page

Content Issues

PageSpeed

Structured Data

Security

Hreflang

Sitemaps

JavaScript

URL Inspection




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Core Web Vitals?

Visualise it.

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 user's main content has likely rendered. Good LCP helps ensure the user that the page is useful.

FIRST INPUT DELAY (FID)
First Input Delay (FID) measures load response latency because it quantifies the experience users feel when trying to interact with a responsive page—e.g. FID helps ensure that the page is usable.

CUMULATIVE LAYOUT SHIFT (CLS)
Cumulative Layout Shift (CLS) measures visual stability and helps quantify how often users experience unexpected layout shifts—e.g. 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 byte of page content.

HOW TO USE THIS DASHBOARD:

- Audit the Core Web Vitals, using Screaming Frog for access to the PageSpeed Insights API. Export and save your crawl as a Google Sheet.
- Make a copy of the dashboard.
- Plug your data into play. Click on the [i](#) to learn more.


Read the [full tutorial on how to use this dashboard as part of your technical SEO auditing process](#).

PERFORMANCE OVERVIEW

LCP

PAGESPEED INSIGHTS DATA | PAGESPEED INSIGHTS API | LAB/FIELD DATA

FAST




Average: 22

FID

PAGESPEED INSIGHTS DATA | PAGESPEED INSIGHTS API | LAB/FIELD DATA

AVER.




Average: 24

CLS

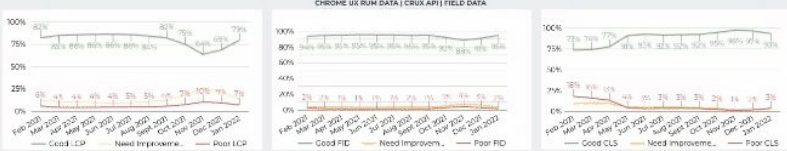
PAGESPEED INSIGHTS DATA | PAGESPEED INSIGHTS API | LAB/FIELD DATA

SLOW



Average: 15

CHROME UX RUN DATA | CRUX API | FIELD DATA



Feb 2021, Apr 2021, Jun 2021, Aug 2021, Oct 2021, Dec 2021, Feb 2022

Good LCP, Need Improvement, Poor LCP

Good FID, Need Improvement, Poor FID


Good CLS, Need Improvement, Poor CLS

SAVINGS OPPORTUNITIES AT A GLANCE

PAGES WITH IMAGE OPTIMISATION OPPORTUNITIES (IMPACTED LCP, FID)

- Non-deferred Images: 54
- Large images: 24
- Non-encoded Images: 39
- Old Image Formats: 53

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Core Web Vitals?

Deep dive.

Shout out to [@TonyMcCreath](#)



Core Web Vitals v2.6 by Web Site Advantage

Overview

Page Details

LCP Status

LCP Score

LCP Causes

LCP Distribution

FID Status

FID Score

FID Distribution

CLS Status

CLS Score

CLS Distribution

CLS Causes

TTFB Score

FCP Score

World View

Effective Connection Type

Core Web Vitals Overview

19 Jan 2022 - 15 Feb 2022

Page type: URL

LCP	2.4	FID	10	CLS	0.00
LCP	2.4	FID	3	CLS	0.00

Continent: Country: Region: Browser: Device: Effective connection type: Engagement:

Largest Contentful Paint (LCP)

Device	Good	Needs Improvement	Poor
mobile	75%		
desktop			

First Input Delay (FID)

Device	Good	Needs Improvement	Poor
mobile	75%		
desktop			

Cumulative Layout Shift (CLS)

Device	Good	Needs Improvement	Poor
mobile	75%		
desktop			

We recommend following [this guide](#) to generate the data for the report via GA4 and BigQuery. If you use a direct connection to Google Analytics and not via BigQuery the data is based on averages and not 75th percentiles. It also averages the value when multiple events are recorded for a single page view. This typically means all scores will be lower than their true value, especially with CLS which often causes multiple events on a single page view. This is due to the limitations in Data Studio to re-aggregate at the page view level.

Core Web Vital / 75th Percentile				Core Web Vital / Average				Core Web Vital / Standard deviation			
Device	TTFB	LCP	FID	Device	TTFB	LCP	FID	Device	TTFB	LCP	FID
mobile	1.602	2.411	10.400	mobile	1.235	2.011	9.187	mobile	1.985	2.463	4.697
desktop	1.510	2.388	1.400	desktop	1.081	2.215	2.989	desktop	4.124	3.505	60.816

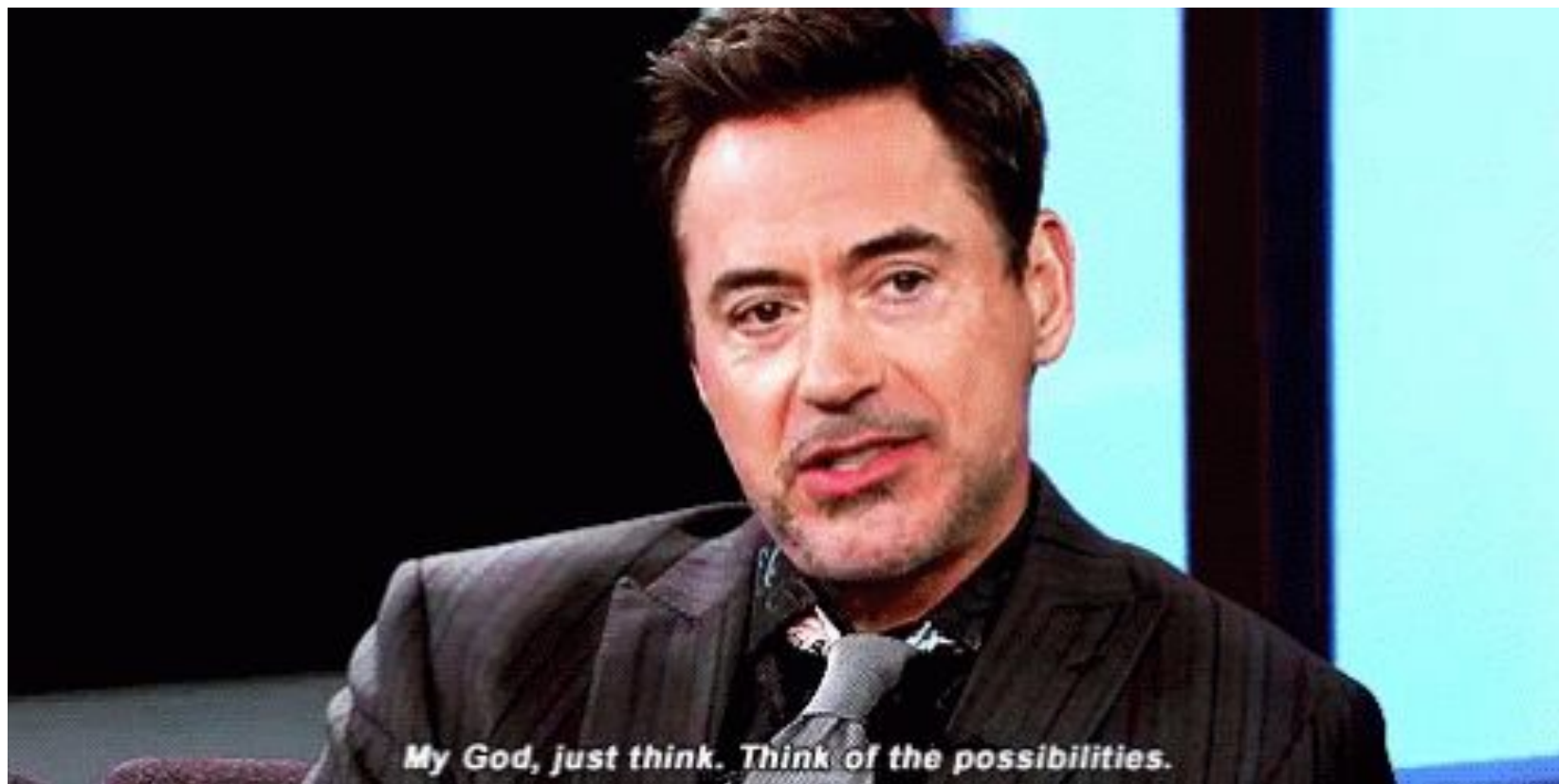
Device	Core Web Vitals	75th Percentile	Average	Standard deviation	Max	Min	Median	Variance	Events
mobile	TTFB	1.602	1.235	1.985	20.250	0.000	0.952	3.918	184
mobile	LCP	2.411	2.031	2.463	20.467	0.145	1.611	5.997	90
mobile	FID	10.400	9.087	4.697	27.600	4.000	7.700	21.644	53
mobile	FCP	2.139	1.641	1.895	20.465	0.021	1.371	3.570	181
mobile	CLS	0.000	0.010	0.050	0.409	0.000	0.000	0.002	86
desktop	TTFB	1.510	1.681	4.124	101.364	0.000	1.112	17.001	2.833

Privacy Policy

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**We are, really, just
scratching the
surface.**



Want our Weekly SEO news delivered to your inbox?



This week's highlights

Last Friday, **#WeeklySEO** returned with a new guest from Switzerland.

[Isaline Mülhauser](#), the co-host of SEOnerdSwitzerland's meetup, covered the challenges behind internationalizing a website.

Topics we covered in the [latest Weekly SEO live stream](#):

- 0:00 – Introduction to the Weekly SEO
- 04:26 – Who is Isaline Mülhauser?
- 09:32 – What we are going to cover in this session?
- 11:29 – Why is multilingualism a challenge?

Most Common Blogging Mistakes that Can Hurt Your SEO

You publish content regularly on your blog, and you love all of your articles. However, your blog articles cannot be found on Google Search results, and you need to get traffic.

What will you do to become visible in this immense sea of online content marketing in which more than 31 million bloggers exist just in the USA?

In this blog post, Büsra Cildas explained how you need to deal with your blog and what you need to know while blogging.

[Read more](#)



Should You Disavow Links in 2021?

Dr. [Marie Haynes](#) shares her thoughts on whether or not there is a benefit in using Google's disavow tool today. You'll see how the example links that Google sends following a failed reconsideration request are dramatically different than they were years ago. Many of the example links given today are links that we suspect you might consider "white hat". The article concludes with our current advice on which sites could benefit from using the disavow tool in 2021.

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