Report - upd-site-performance-gsc - 2022-01-19
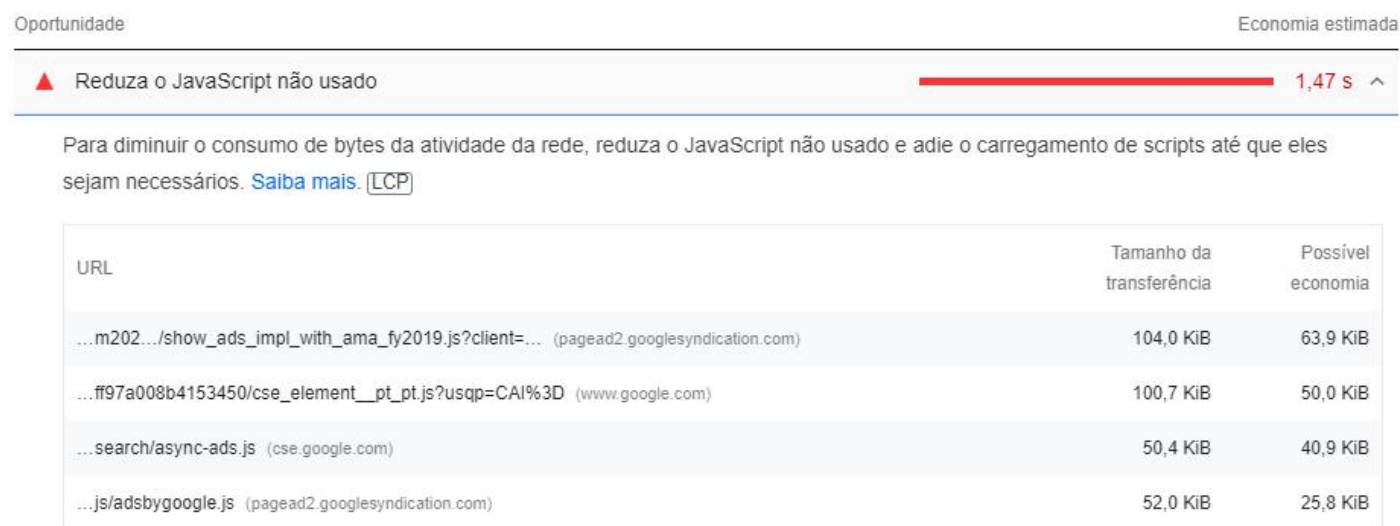
Accountable: Fernando

Contextualization

Third-party is a common factor impairing sites performance.[1] As it turns out, performance problems may drive users away from a website, leading to a decreased conversion rate. Therefore, having a lot of third-party utilities may have a negative impact on revenue.

On the other hand, third party services may be really useful. For example, instead of creating a native search engine, we may use Google Programmable Search Engine.[3] This is our case. We have been using Google Programmable Search Engine to help our users to find what they need in our website.

Problem

Pagespeed is suggesting us to reduce unused JavaScript.

Oportunidade		Economia estimada
▲ Reduza o JavaScript não usado	▬▬▬▬▬▬▬▬▬	1,47 s ⌄

Para diminuir o consumo de bytes da atividade da rede, reduza o JavaScript não usado e adie o carregamento de scripts até que eles sejam necessários. Saiba mais. [LCP]

URL	Tamanho da transferência	Possível economia
…m202…/show_ads_impl_with_ama_fy2019.js?client=… (pagead2.googlesyndication.com)	104,0 KiB	63,9 KiB
…ff97a008b4153450/cse_element__pt_pt.js?usqp=CAI%3D (www.google.com)	100,7 KiB	50,0 KiB
…search/async-ads.js (cse.google.com)	50,4 KiB	40,9 KiB
…js/adsbygoogle.js (pagead2.googlesyndication.com)	52,0 KiB	25,8 KiB

From items, the only one we may do something is Google Programmable Search Engine related JavaScript, which are the second and third files.

Note: the CSE on those links stands for Custom Search Engine. This was the name of the feature some time ago. Now they call it Programmable Search Engine, but they has not changed the abbreviation in their links.

Solution

Delay Programmable Search Engine loading until the user needs it. For now, we load this feature when the its parent element is visible to the user. This is only true when the user clicks on a toggle button.

Further Problems

In case the element is set to be visible by default in the future, there will be no delayed load time. A better solution would be to replace the search-box with a fake search box which is identical to the

original. This would be replaced by the original when the user clicks on it. However, we found difficulties when trying to implement this solution: the style sheet is too long and it is hard to mine only the necessary fragments of it.[4]

[1] Loading Third-Party JavaScript - Web
https://developers.google.com/web/fundamentals/performance/optimizing-content-efficiency/loading-third-party-javascript/?utm_source=lighthouse&utm_medium=lr

[2] Why marketers should care about mobile page speed - Think With Google
https://www.thinkwithgoogle.com/marketing-strategies/app-and-mobile/mobile-page-speed-load-time/

[3] Programmable Search Engine - Docs
https://developers.google.com/custom-search

[4] Carregue recursos de terceiros de forma lazy com fachadas - Web.dev
https://web.dev/third-party-facades/