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Optimizing for Core Web Vitals

mgid

To a great extent, publishers rely on the search traffic to attract new audiences and grow. According to our 2020 research of U.S. publishers, on average organic traffic accounts for **16%** of all website visitors and publishers' revenues. Organic visitors are more driven by their intent to find relevant information and stay for a while on the website, so publishers tend to favor this traffic source.

For this year's Google algorithm update, page experience will become an important factor for websites to appear in search results. In November 2020, Google made a public announcement that Core Web Vitals would start having an effect on search results. This is definitely something new, as Google rarely announces the ranking factor change in advance. So far, this step is supposed to give publishers more time to get ready for the update.

Let's shed some light on the nuances of this Google update, whether ads affect these metrics, and ways to diagnose and prepare for the Core Web Vitals update.

The big update

Google announced this update **to come into effect in mid-June** and come into full force in August 2021. This update will combine new signals, Core Web Vitals, and previous UX-related signals.

If we take a look back, page experience has always been important for Google to make sure users achieve their purposes interacting with a website. In 2015, Google began to take into account the mobile-friendliness of websites. In addition to this, Google has been already using page speed as a ranking factor in mobile searches since 2018.

In 2020, they came out with Core Web Vitals, which is the set of metrics that estimate page experience most users get upon landing on your site. Starting from June 2021, these metrics are going to be a part of their search ranking algorithm.

Signals for page experience			
Core Web Vitals		Other Web Vitals	
	Loading Largest Contentful Paint	•	Mobile-friendly version
R	Interactivity		Page speed for mobile search
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	First Input Delay		HTTPS and safe browsing
I I	Cumulative Layout Shift		Ease of accessno intrusive interstitials2

We do not expect that this update will cause huge fluctuations in website rankings. Other ranking signals will still include contextual relevance and undisclosed hypothetical factors, e.g. backlinks, search intent, etc. Website content still remains to be the strongest ranking signal for Google, but page experience now becomes a decisive factor when two or more websites show the same contextual relevance. Therefore, the stakes can be much higher in competitive niches.

We believe that this initiative aims to reward websites that deliver better page experiences for users. It also brings much more transparency to SEO optimization activities because these metrics are publicly disclosed as a ranking factor.

Pages that demonstrate stable and fast performance also make visitors stay on the website longer, help them achieve their goals, and even convert them into buyers more often. According to Google's own study, visitors are 24% less likely to abandon pages that meet Core Web Vitals thresholds.

Google also plans to implement the dedicated badge system, which will rate website performance in terms of Core Web Vitals and mark them with visual indicators in search results. It might be expected that advertising budgets will move away from publishers with red progress bars.

# What are the Core Web Vitals metrics?

Core Web Vitals are the set of evolving metrics developed by Google to capture the most important parts of page experience users get on a website. Currently, the set includes three variables focused on *loading* (Largest Contentful Paint), *interactivity* (First Input Delay), and *visual stability* (Cumulative Layout Shift).

Put in very simple terms, **Largest Contentful Paint (LCP)** estimates how long does it take for the largest element to be to load on a page, for example, this could be a large banner ad at the bottom of the page. Large elements considered for this measurement include:

- <img> elements
- <image> elements inside an <svg> element
- <video> elements
- elements with background images
- block-level elements

Ideally, you would want to keep the LCP score below 2.5 sec.

**First Input Delay (FID)** measures how quickly a user can interact with the website. This metric accounts for the time needed for the browser to begin processing event handlers in response to user interactions, such as clicks, taps, or using custom, JavaScript-powered controls. A good FID score is 100 ms or less. It is the rarest web vital metric for a publisher to have problems with. However, it still can get in the red area if you have a lot of background processing, for example, if you use a lot of WordPress plugins that work without any pause.

**Cumulative Layout Shift (CLS)** tracks if the page layout changes of its own volition or if website elements move around unexpectedly as the page loads. For example, a banner ad finally loads, and the article text and headlines shift, so a user has to adjust where they were reading. Thus, the CLS metric estimates the sum of all individual layout shift measurements, i.e. it may be only one massive shift or several tiny shifts. The goal for the CLS metric is to have a 0.1 cumulative layout shift. Also, it's measured in terms of percentages rather than pixels to adjust for different screen sizes. In April, Google updated how the CLS score is tracked and made it fairer for web pages that are open for a long time (long-lived) or employ infinite scroll

An important thing to know is that these metrics estimate field data rather than lab data of page performance. That means that collect anonymized, thev real user measurement data over a period of time rather than one-off experiment estimates or lab estimates. Typically, the analytics reports for Core Web Vitals estimate the 75th percentile of all actual page loads. Lab experiment data for those metrics also can be used to pre-assess the page performance during development.

Core Web Vitals show the current snapshot of your website's actual performance in the recent past: Google's lookback window is 28 davs. So, you should take into account that it will take time for optimizations to have an impact on those metrics.

## How to test your website

Google now supports Core Web Vitals measurement in a number of tools, including Lighthouse, PageSpeed Insights, and Chrome DevTools. Core Web Vitals also can be measured by third-party tools using standard web APIs, so you may find third-party analytical systems which account for these metrics.

So far, one of the simplest ways to test your website and find out the actual scores is by looking at the PageSpeed Insights reporting tool powered by Lighthouse. In April, Google also added a new Page Experience report in Search Console, which tracks all page experience signals.

The reporting tools will show you desktop and mobile scores separately, and mobile scores will generally show worse performance. Ideally, you would want to keep each metric in the green for desktop and mobile.



Low scores on mobile can be explained by slower mobile connections, resized images, etc. We recommend optimizing for mobile first in case there is a drastic difference between mobile and desktop Core Web Vitals.

# How worried should you be about ads?

Unfortunately, website elements like heavy ad formats, lead magnet forms, or newsletter sign-ups can impact Core Web Vitals.

At MGID, we invested significant resources and optimized our advertising solutions for page load speed and browser performance. Other advertising platforms, however, may fall behind on implementing the newest developments, so you should work closely with them and make sure they are optimized enough to bring you good scores.

To prepare for the Core Web Vitals update, we've already launched a number of features and improvements in our widgets.

### Lazy loading

This feature loads images and Javascript on the fly, when a user scrolls to the trigger pixel

#### **Reservable placements**

We reserve the ad placement on the page to avoid any unexpected layout shifts

#### Image formats

Progressive image formats like SVG, WEBP, JPEG 2000

#### Widget design optimizations

We remove animations and widget styles that negatively affect CWV

## MGID Optimizations for Core Web Vitals

# Progressive compression algorithms

We use advanced algorithms like Brotli to reduce file sizes

# How to improve Core Web Vitals

One of the most common stumbling blocks that affect Core Web Vitals, and precisely the LCP score, is **images and large file sizes**. To sort it out, you can resize images to the right pixel size before uploading them to the CMS platform. Alternatively, you can also serve images in WebP format, which uses predictive lightcoding to compress images. The latter option is preferable as it allows you to seamlessly adjust pixel values to different screen sizes and has better compression rates compared to other formats.

Once you upload images, there are also different tools that can help you further compress them. Some of them come in the form of plugins for WordPress, for example, reSmush.it, EWWW Image Optimizer, ShortPixel Image Optimizer, and WP Smush. You can also **compress images on your site retrospectively** to improve user experience on existing pages.

To speed up your website, consider **removing unnecessary scripts or plugins**. For third-party scripts that you cannot abandon, you can use Google Tag Manager and set up the Window Loaded trigger, which will defer non-critical scripts from loading until the main elements are fully loaded.

Certain design themes and jumpy layouts might slow down your website and worsen the CLS score considerably. You can pre-test different themes in the lab environment and choose the one with the best scores, typically this would be the one that has fewer background images.

For some slower-loading elements, you can use **preemptive space reservation**. Depending on the device a website visitor uses, the placeholder (or container) has a certain size known in advance and reserves the needed space, so that the slow element does not have to be fully loaded from the beginning nor creates unnecessary layout shifts. You can also pre-size third-party content blocks and advertisements.

Consider eliminating auto-play videos, slideshows, and heavy images in the mobile version.

To improve page experience on low resources devices, you can add videos through a placeholder, i.e. as static images that load videos when a user clicks on them.

Lazy loading can also be implemented for any large below-the-fold website elements, not just ads. This optimization feature is used to defer element loading until a user reaches a certain threshold. Lazy loading can significantly improve First Input Delay (interactivity) on your website. MGID widgets also work with this feature.

Hosting performance and slow server response time are other common reasons for poor scores on Core Web Vitals. For smaller websites with page load problems, it might suffice to start using caching plugins, for example, WP Cache or WP Rocket. For larger publishing projects with audiences that come from different regions, it can be recommended to partner with CDN providers, which maintain their own server networks and can locate copies of web content closer to end-users.

# Conclusion

With this new update, page experience will become more important for publishers to achieve high SEO rankings and get more organic traffic. Google clearly defined new ranking signals, i.e. Core Web Vitals, so publishers can now prioritize these metrics in their search optimization efforts.

In most cases, when optimizing for Core Web Vitals publishers should find the right balance between some advanced features, design choices, and page performance. Having large, high-quality background images, above-the-fold videos, or dynamic sign-up forms can definitely slow down your website.

At MGID, the user experience readers get from interacting with our ads has always been the top priority. We always monitor the latest suggestions and technologies that are on the rise and implement the best solutions offered by browsers that improve HTML, JavaScript, and CSS performance.