

The background features a dark blue and black color scheme with abstract data visualizations. A white line graph with circular markers is prominent in the upper left. In the center, there are vertical blue bars and a grid pattern. A large, semi-transparent white L-shaped graphic is positioned behind the main title. The overall aesthetic is modern and technical.

EMERGING TRENDS IN WEB DEVELOPMENT

WDV495

Core Web Vitals

- Used to enhance website according to new standards
- Ensures website well-performing, responsive, and visually stable
- Provided by Google
- Largest Contentful Paint, First Input Relay, and Cumulative Layout Shift are used to measure and ensure such standards are met

Largest Contentful Paint (LCP)

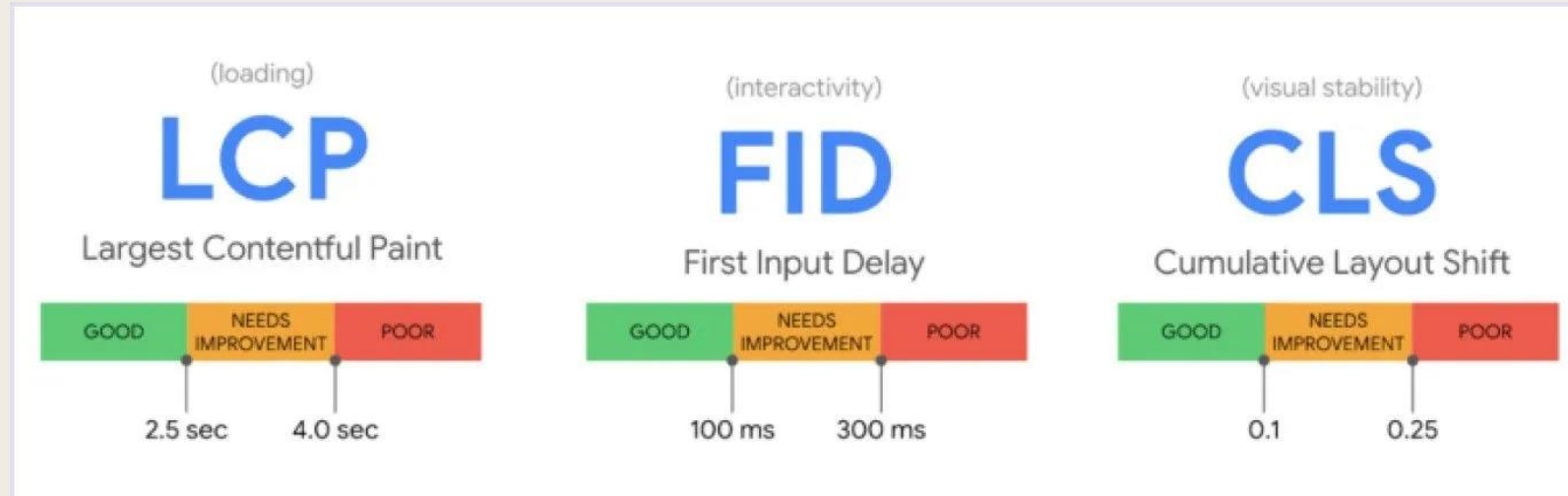
- Shows speed of loading the most significant piece of content on the screen
- This could be an image or a block of text, etc.

First Input Relay (FID)

- Shows how fast a website reacts to the first action by a user
- Such as clicking on a link or image

Cumulative Layout Shift (CLS)

- Shows the stability of a website's visual elements



- Optimizing these three pillars makes the website fast loading and stable
- Enhances user experience
- Keeps users on the site for longer periods of time
- Also helps enhance SEO
- Google gives feedback and data regarding website's performance via tools such as:
 - *Google Lighthouse*
 - *New Core Web Vitals*
 - *Google's Search Console*

Motion UI

- Powerful front-end library for the creation of customizable animated UI elements
- Construct modular scrolling, background animations, animated charts
- Focus is to keep users entertained via intuitive and responsive websites
- Helps boost web app rankings in search results
- When used properly, can boost web page conversion rate easily

Motion UI

- We have about 8 seconds to grab the attention of site visitors
- <https://www.playstation.com/en-us/ps-vr2/>

Content Personalization

- about creating and showing relevant content that will resonate with users
- 56% of users say they will return to a site or app due to its personalized approach
- Uses machine learning and AI to analyze all of a user's action on the site
- Algorithms then use the collected information to suggest what people may like to see
- Runs in the background without interrupting use of the site
- Examples are Facebook, Amazon, and Netflix

Resources

- <https://www.codica.com/blog/top-web-development-trends/>
- <https://www.msn.com/en-us/news/technology/future-proofing-your-website-adapting-to-2024-web-technologies-and-trends/ar-AA1mHZon>
- <https://www.searchenginejournal.com/>