Adaptive image loading based on network speed

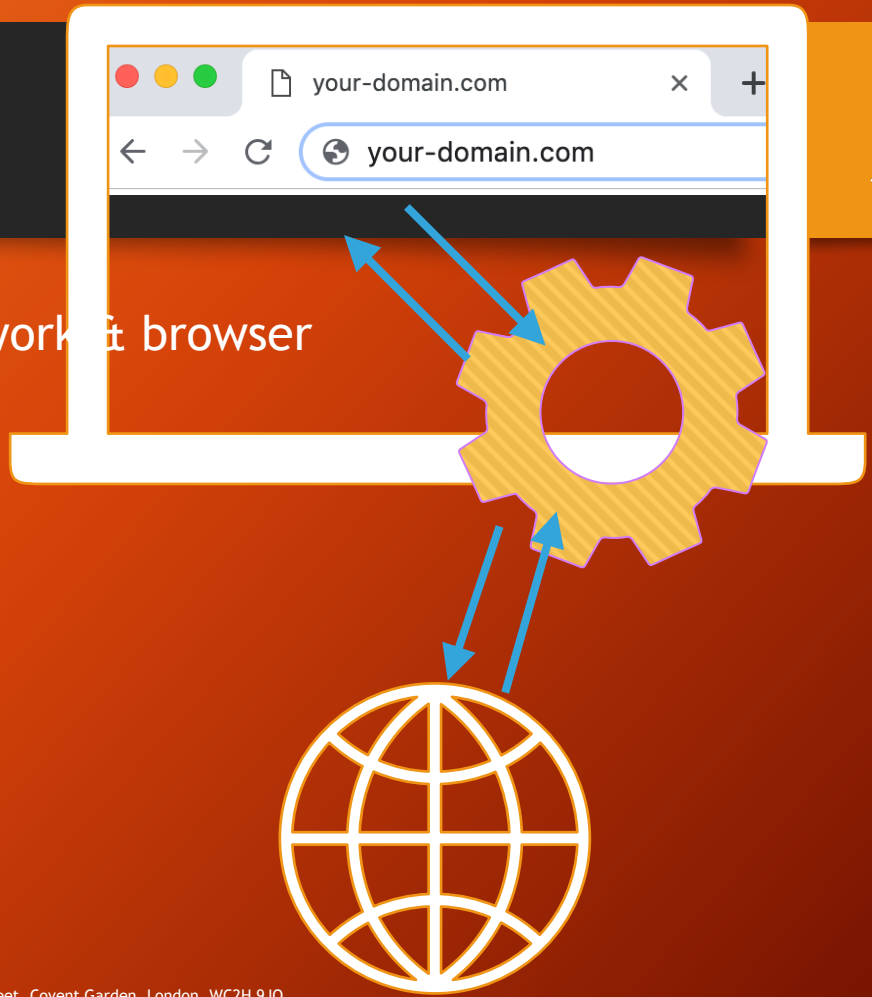
Pixels camp

What is a progressive web app?

- Hybrid application type
- Looks and feels as a native mobile application
  - Offline availability
  - Notifications
  - Adaptive performance

Service worker

- Acts as a proxy between the network & browser
- Lifecycle:
  - Download
  - Install
  - Activate



The age of visual media

- Consumers are using more digital devices
- Strong mobile presence
- Images & videos rule!
- More engagement, better clickthrough rates

Performance matters

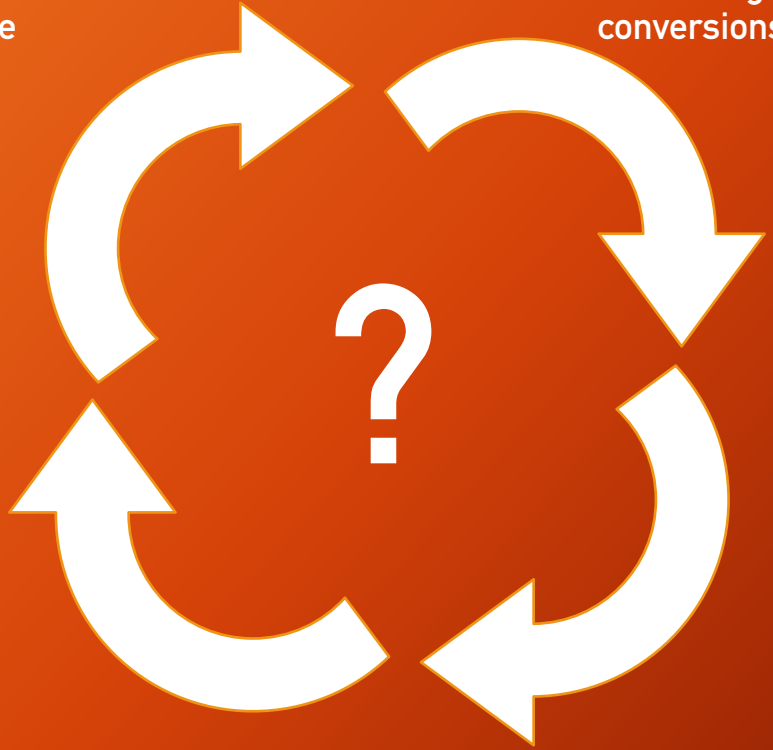
- Images and videos have a huge impact on page load times
- ~ 75% of a website's weight is images & video

Optimisation

- Challenging!
- Different devices, device aspect-ratios, different formats
- High res v low res (@2x)
- JPEG: for photographs
- PNG: for graphics / illustrations
- GIF: for simple animations
- JPEG 2000? WEBP? MOV vs GIF?

More images mean better visuals on a website

More images mean more conversions / sales



Performance impacts conversions / sales

More images impact the site performance

Network information api

- Experimental technology (https://caniuse.com/#feat=netinfo)
- One of the Web APIs
- Information about the system's connection
  - Connection type
  - Connection speed

workbox.js

- Service Workers are great, but …
- Workbox.js (Google)
  - Set of libraries designed to work with PWAs
  - Seamless integration
  - Less code

PWA support in the wild

- Angular — @angular/pwa
- Vue.js — @vue/cli-plugin-pwa
- React - just add Service Worker to the project
- Ionic — based on Angular
- Polymer — pwa-starter-kit
- Nuxt.js - pwa plugin

Fresh from the news

- Google Play is now open for PWAs
- Progressive Web Apps in the Microsoft Store