



Progressive Web Apps

colorwhistle

What Are Progressive Web Apps (PWAs) And Why Should You Care?

What exactly are Progressive Web Apps (PWAs)?

PWAs are nothing but websites that look and feel like native mobile apps. The application aims to combine features offered by modern browsers with the benefits of a mobile experience.

PWAs includes push notifications, offline support, background synchronizing support, and other modern features. Plus, they access your location, webcam and other details that normal native apps seek. Of course they ask your permission before accessing them.

What makes Progressive Web Apps so special?

According to [Google](#), PWAs are,

Progressive - Works for every user, regardless of browser choice because it's built with progressive enhancement as a core tenet.

Responsive - Fits any form factor: desktop, mobile, tablet, or whatever is next.

Connectivity independent - Enhanced with service workers to work offline or on low-quality networks.

App-like - Feels like an app, because the app shell model separates the application functionality from application content.

Fresh - Always up-to-date thanks to the service worker update process.

Safe - Served via HTTPS to prevent snooping and to ensure content hasn't been tampered with.

Discoverable - Is identifiable as an "application" thanks to W3C manifest and service worker registration scope, allowing search engines to find it.

Re-engageable - Makes re-engagement easy through features like push notifications.

Installable - Allows users to add apps they find most useful to their home screen without the hassle of an app store.

Linkable - Easily share the application via URL, does not require complex installation.

How does a Progressive Web App work?



PWAs are enhanced via modern web technologies to give an app-like experience.

The apps will get a separate window and shortcut on your taskbar (on Windows 10 and Chrome), or an icon on your home screen.

Technologies used by PWAs include,

- Cache API and IndexedDB for quick loading
- Service Workers and push notifications for background tasks like synching and sending notifications when the app is not in use
- Fetch API for easy data request
- Web App Manifest file for providing name, icon, author, and description
- HTTPS for security

PWAs are not in any way similar to Google's Chrome Packaged Apps or Microsoft's Hosted Web Apps. These apps are packed as a file (aka small offline bundles) and submitted to the app store for users to install and use from Chrome Web Store or Windows Store. And, they are also platform specific where they would either work on Chrome or Windows. Plus, to update the apps, developers have to make changes to the offline files and then submit a new version to the app store.

On the other hand, PWAs are never packed into small offline bundles. They are entirely hosted on the server of the website. Developers update the app just like they would update a website. Therefore, all the platforms and browsers that support PWAs can use the same app.

One of the biggest advantages of PWAs is code stability. The same version of the app is used for both desktop and mobile versions. PWAs can also be listed in mobile app stores for quick discovery and installation. But, on the backend, the app store will simply point to the PWAs server.

In native apps, Java is used for Android and Swift for iOS. So some are concerned about the performance of PWAs because it mainly uses JavaScript code. But, performance wise, it is safe to say that Progressive Apps are getting pretty close.

Popular companies that have embraced Progressive Web Apps

Some of the websites using PWAs are

- Forbes
- Flipkart Lite
- Alibaba
- The Weather Channel
- The Washington Post
- Fandango
- Jumia Travel
- Lancôme
- Ola
- Twitter Lite
- Virgin America
- JioCinema
- OLX
- Wego
- Flipboard, Telegram
- Pinterest
- BookMyShow
- Trivago.



Are Progressive Web Apps really the future of the web?

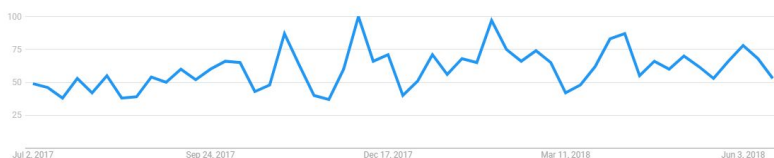
According to [Google I/O 18](#), Progressive Web Apps is coming to desktop with the new Chrome67. So the subject got way hotter.

This is the popularity trend for Progressive apps from June 2017 to May 2018 according to Google Trends,

Numbers depict that, a value of 100 is the peak popularity for the term, 50 means that the term is half as popular and score of 0 means there was not enough data for this term.

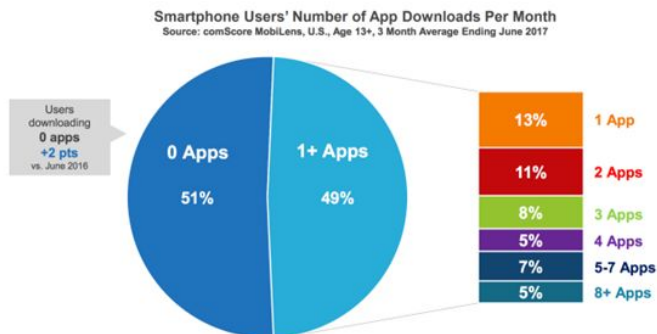
The following reasons will convince you why Progressive Web Apps will dominate in the future.

- Low budget
- Lightweight and easy to create
- Cross-platform compatibility
- Easy installation
- Boosts conversion
- Competitive advantage
- Easy to expand
- Quick installation on any device
- Includes push notification options
- Reduces data usage and loading time



According to comScore, 51% of users still don't download any apps in a month.

This means even if you create an app, it will take a lot of work to attract users to download it. But, an average user will at least manage to visit 50 websites in a month. So, by creating progressive web apps, you can cover more users.



WordPress + Progressive Web Apps

WordPress does not completely support creating progressive web apps in their core application. However, the Jetpack team is committed in the direction of adding Progressive Web App functionalities in the future.

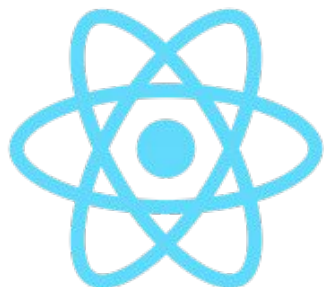
Recently a [PWA plugin](#) developed by XWP, Google And Automattic was launched in the WordPress plugin directory. According to the plugin description, it serves as a place to implement support for Service Workers, Web App Manifest and HTTPS in WordPress with the intention of being proposed for core merge, piece by piece.

So it is an indication that Progressive Web Apps are also entering the WordPress core.

Top technology skills for PWA development

These are some of the top technology skills you need to be well versed to build a progressive web app.

ReactJs



React is managed, supported and used by Facebook. With billions of people using it daily, we can rest assured that the framework is rigorously tested. Below are some resource that will help you get started to build a PWA with Reactjs

- [How to build an A+ Progressive Web App with React](#)
- [How To Build Progressive Web Application Using React Js](#)

AngularJs



AngularJS is an open-source front-end framework mainly maintained by Google. The framework has seen tremendous growth and many established companies are bringing them behind their corporate firewalls. Below are some resource that will help build a PWA with AngularJs

- [Angular 5 Service Worker](#)
- [Building PWAs with Angular 5](#)
- [How to build Progressive Web Apps with Angular](#)
- [Create an Angular 5 PWA With a Perfect Lighthouse Score](#)

Vue.JS



Vue is another open-source JavaScript framework which was created by Evan after working with Google's AngularJs. Below are some resource that will help you get started to build a PWA with Vue.JS.

- [Building PWAs with Vue.js](#)
- [PWA template for vue-cli based on the webpack template](#)
- [A progressive Web application with Vue JS, Webpack & Material Design \[Part 1\]](#)

Other useful resources

- Addy Osmani at Google I/O '17: [Production Progressive Web Apps With JavaScript Frameworks](#)
- Google I/O '18 PWAs: [building bridges to mobile, desktop, and native](#)
- Google's [Progressive Web Apps](#) homepage, [step-by-step code lab](#), and [instructor-led PWA](#) training and [Your First Progressive Web App](#)
- Pluralsight's [Getting Started with Progressive Web Apps](#)
- [Why "Progressive Web Apps vs. native" is the wrong question to ask](#)
- [2018 State of Progressive Web Apps](#)
- [Live updates](#) of Progressive Web App browser support

How ColorWhistle works on Progressive Web App projects?

Progressive Web Apps, in general, is a very large scope and much technical knowledge is required.

ColorWhistle is ready to work on PoC (Proof of Concept) with any of modern PWA project before getting started with full development.

We have the technical capabilities and analytical skills to provide an economically viable business solution.

If you have any doubts or want to create a progressive web app for your business, please [contact us](#) anytime.



thank
you



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colorwhistle

India

LEO Towers, 60/10,
Sathy Main road,
Ganapathy,
Coimbatore - 641006
+91 (422).420.2825

USA

700 E Firmin St,
The Shared Drive,
C/o the plat4m group llc,
Kokomo, Indiana 46901
+1 (201).918.4295

colorwhistle.com