



Progressive Web Apps



Disrupting the Market and Engaging the Consumer with PWAs

A progressive web app is the latest leap in app technology, and one which is pushing the boundaries of what is possible in terms of customer engagement. Acting as a functional marriage between traditional web browsing and a standalone mobile app, a PWA is causing serious disruption in the world of digital.

While standard applications need to be downloaded to a user device, a PWA does not, and instead it provides instant access to a mobile-optimized web presence via a shortcut on the user's home screen. While traditional mobile web browsing requires a strong internet connection, a PWA does not, and can be accessed even when the device is offline.

But these applications offer much more than a 'best of both worlds' compromise. Let's take a closer look at the benefits and challenges of a progressive web app strategy.

The Benefits of Progressive Web Apps

Deploying progressive web apps within your online presence brings with it many benefits, the majority of which are geared towards enhancing the customer experience and optimizing your business' ability to meet customers and leads wherever they may be.

In this section, we will explore the ways in which progressive web apps are disrupting the app landscape as we know it, and reinventing the means by which clients and prospects engage with an organization, both online and offline.

Improved Customer Experience with Offline Modes

Your customer needs to be able to connect and interact with your business at all times. If this connection is broken — for example, if the customer is in an area with poor mobile coverage, or if their WiFi goes down — the customer's experience is severely harmed.

Progressive web apps sidestep this issue by enabling offline mode interaction. When a connection to a standard website is broken, data is lost — in the case of a progressive web app, data can be saved in an offline mode, providing a seamless experience, less frustration for the user, and an enhanced reputation for your business.



Streamlined Web Access in the 'App Genre'

Apps have taken over modern life. The slogan "there's an app for that" may be long dead and buried, but its legacy lives on, and today's consumer expects the sort of slick, intuitive functionality that applications now represent. To put it simply, they expect digital interaction in the 'app genre'.

So what happens when these customers visit your website, particularly on a mobile or tablet device, and are greeted with a traditional, clunky desktop website? They are disappointed. The smooth functionality of an app is just not there.

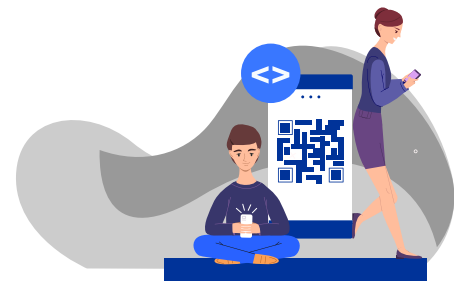
Progressive web apps bring this app functionality to a web page, delivering the customer what they want. Your aim should be to make the customer's journey easier at every stage, augmenting their experience and fostering high levels of brand loyalty and trust; progressive web apps are key in this department.

Better Performance across the Board Thanks to Lightweight PWAs and Service Workers

Users no longer consider pure functionality to be the be all and end all of a successful digital experience. Getting the job done simply does not cut it anymore — getting the job done fast is now the gold standard.

Progressive web apps provide a means for businesses to ensure this is the case, tuning up the performance of their digital offerings in a way that not only meets but surpasses consumer expectations.

This is achieved in the same way as the offline mode is achieved — by locally storing key data related to text, style sheets, images, and general web content. This data can then be accessed quickly and easily using service workers during page loading, thus accelerating the process.



No Installation, No Updates, No Hassle

The progressive web app shortcut sits on the customer's home screen alongside the other applications that they use on a daily basis. However, there is no real installation process or hassle involved from the customer's end, nor does the consumer have to sign into an application store in order to access the digital offering. The functional components of the app are already deployed and waiting to go on the website — the downloaded app merely acts as a shortcut to this functionality.

This represents a key area of disruption in the market. In order to succeed as providers of products and services, the modern organization must exist at the confluence of convenience and efficacy. It is not enough simply to do something well; today, we must do things well, and do them fast. Progressive web apps provide supreme functionality, without the annoyance of long download times and repeated updates. This brings us several steps closer to that all-important balance.

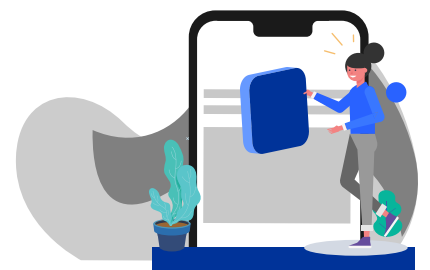
A PWA makes it far easier for you to manage the code of your digital offerings, and a single central server and codebase provides all updates for all devices and operating platforms. As the PWA is not released on any app store, there is no approval and release cycle to delay the launch process.

This freedom from app store structures also makes maintenance much easier, and ensures that bugs can be repaired without delay.

Integration with device functionality

When developing a progressive web app, coders will have the ability to integrate with certain features of the user's hardware. This could mean sending push notifications to the consumer, with product or service recommendations that complement purchases they have already made, or integrating with the calendar app to notify the customer when a product is available.

These integrations represent exciting points of interaction between your organization and the consumer, which make it easier to enhance their lifetime value.



A Direct Route to the Front of the Queue

This benefit of a progressive web app is a little less tangible but just as effective, and links back to what was mentioned before, regarding the app shortcut sitting on the customer's home screen. To get the drift, imagine your customer wanting to quickly glance at your service offering/product!

Rather than having to open a browser first, type in the url of your website and then search for the page, it would be much easier and better to click on an icon instead on the home screen and land straight on the product/service page.

Not only would such a provision dramatically shorten the customer's journey, but also put you right at the front of the queue everytime your customer needed a service/product that you offer.

Avoid App Store Registration Charges and SEO Potential

App stores are not free. Developers must pay for the privilege of having their applications and software pieces hosted in these locations. By opting for a PWA, which is not hosted in any such store, developers and business owners effectively sidestep these charges.

There is also a second benefit to this. The progressive web app can be crawled by SEO bots and made searchable across the internet, greatly increasing its visibility when compared to a standard app which can only be searched for within the app store structure itself...





The Challenges Brought by Progressive Web Apps

There are challenges to be navigated when approaching progressive web apps, however. We have detailed some of the key challenges below.

Potential Market Misalignment

A modern customer engagement strategy goes beyond the multichannel and enters the realms of omnichannel — seamlessly meeting the consumer across all the channels they use. While a progressive web app sidesteps the need for listing on an app store such as Google Play, this can cause problems of its own, and may result in you missing out on direct search traffic within the app store.

App stores like these represent potential points of contact between leads and organizations like your own, and you could be missing out on lead traffic sourced directly from the app store if you decide to use a PWA rather than a traditional app. One way to avoid this stumbling block is to deploy a standard app version of the progressive web app to meet all needs.

Reduction in Hardware Function

While progressive web apps are generally more slimline than their more traditional counterparts, they can still reduce the function of the user's hardware. Battery life is a key area of concern — where a poorly developed progressive web app makes the battery life shorter.

Developers must work to increase the efficiency of these progressive web apps, to minimize this reduction in hardware function.

Support Across Platforms, OSs and Devices is Inconsistent

Unfortunately, not all devices, operating systems and platforms are able to support progressive web apps in the right way, and users of these hardware and software pieces may find themselves excluded from some of the functionality.

At the moment, PWA are not close to fully replacing native applications, and the web app strategy must be deployed alongside the native strategy, rather than instead of it. It may be some time before all features of PWAs, including push notifications and support service workers, are fully supported across all devices.

While Google, Apple, and Microsoft are all working towards providing this support, we can only hope that their progress is speedy and will come soon.

Not Leveraging all the Benefits of the Latest Features on the device.

While progressive web apps can integrate with user hardware to some extent, this is limited when compared with more traditional apps. The latest hardware devices come with a range of different functions which developers can leverage to their advantage. With progressive web apps, this may not be the case, although this is likely to change as these applications become more established.



Potential Problems with Caching

If caching is not handled in the right way, this can cause problems for the PWA and for the end user's experience. For example, badly managed caches can lead to critical updates not reaching the end user on time, or even at all, dramatically reducing the reliability of the PWA.

To learn more about how to add PWA support for your new or existing website, and enjoy the benefits and overcoming the challenges of progressive web apps, get in touch with our team today.



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