AN EASY GUIDE TO PROGRESSIVE WEB APPS

What marketers need to know to develop their web strategy

INTRODUCTION

The shift from browsing the internet on desktop to mobile web browsing happened in the blink of an eye. Smartphones and tablets have long thrown the desktop off its throne and became king and queen of web browsing.

However, customers don't think in terms of king or queen. All they expect is a fast, engaging and frictionless experience, regardless of their device. Roughly two-third of customers say they stopped buying from a company, because a competitor offered a better experience. A slow or user-unfriendly website or app that does not meet customer expectations will cost you that customer.

There is literally not a second to lose. You must pull them in the moment they land.

Introduction
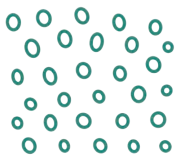
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DELIVER HIGHLY ENGAGING WEB EXPERIENCES IMMEDIATELY

Customer expectations have hit all-time highs. It's not surprising that marketers worry if what they offer truly meets and exceeds their customers' expectations for hyper-personalized, engaging and fast web experiences.

The truth is, despite investing in the latest technology and being armed with valuable data insights, less than half of marketing leaders offer a web experience completely aligned with customer demands. How can they achieve their dream of delivering engaging experiences flawlessly as soon as customers land on their website? The answer: Progressive Web Apps (PWAs).

PWAs are disruptors of the mobile app model. They blur the lines of what was once the exclusive domain of an app and bring native app functionality to the web.

WHERE DO PWAs COME FROM?

Google introduced the PWA in 2015. The main focus was offering an alternative for native mobile apps, so users could have the same experience without having to install an actual app. Google understood one of the biggest hurdles for marketers; not to make a cool app, but rather how to get users to install it. App fatigue, 80% of apps are uninstalled within one week and 25% after a single use, is real and there is no app to fix that.

"

A PWA is the best of two worlds. It is a website, with all of its approachable characteristics and platform-free development, and a native mobile app with high-end functionalities and experiences.

"

PWAs take advantage of key developments in web browsers to deliver great app experiences for mobile and desktop users. They boost customer acquisition, engagement and ultimately, revenue.

We consider PWAs a superpower.

THE TIME FOR PWAs IS NOW

For us, PWAs are a mindset, not just a technique to build websites with. Anyone who's building a website should always think about *performance*, *usability*, *accessibility* and *security*.

The PWA mindset focuses on fast performance and progressive-ness as the goal is to have a website that delivers an exceptional user experience on all browsers.

Therefore, we believe PWAs should be implemented in **every web-based project** (not just mobile) to increase performance, user engagement and SEO.

According to Gartner, PWAs are expected to replace 50% of all consumer-facing mobile apps by 2020. Read that line again. 50%. By 2020. That means today.

But how did PWAs become such a superpower? Why is it important that you get on board sooner rather than later? Let's get all up on how we got here.

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THE PWADVANTAGE

PWAs are virtually indistinguishable from their native counterparts and combine the best of the modern web with native app features. Because they are web-based, PWAs have an immensely wide reach, are instantly accessible and easily shareable. They include offline storage and access to features like geolocation and push notifications, all delivered through the web browser.

PWAs offer marketers 9 key advantages:

1

Fast

Loads within seconds, approximately eight times faster than an average mobile page.

2

Reliable

Works offline thanks to pre-caching and performs well, even on flaky network conditions.

3

Easy to install

Can be installed on the home screen like a native app.

4

Engaging

Brands that have embraced PWAs have seen an average increase in overall engagement of 137%.

5

Discoverable

SEO friendly and easily discovered through web search.

6

Up-to-date

Once installed, the web app can update itself when online.

7

Secure

Enforces HTTPS to meet minimum security web standards.

8

Accessible

Works on any device with a browser, whether it's a smartphone, tablet, or desktop.

9

Small

Takes-up less MB, for example, Uber's PWA is only 50KB while their native app is over 250MB.

PWAs ARE NOT THE ANSWER TO WORLD PEACE AND GREAT COFFEE

Let's get this out of the way first: PWAs versus native apps isn't a winner-takes-it-all battle. Each has its advantages and disadvantages and it depends on what you're looking to achieve.

For starters, PWAs don't work well for visual-heavy games that are played on mobile. Whenever you're playing a game on your phone, you need to have access to all kinds of resources that can only be accessed through your GPU (graphics processing unit), like the augmented reality features for Pokémon Go.

These and other native functionalities such as access to your contact book list, Bluetooth, and media recordings aren't widely available to web browsers yet. A native app is always the better choice in this option. If however, you're looking to develop an app

with content-based functionality, like reading news items, then a PWA is your go-to option. Secondly, PWAs are not here to replace your current website and they are not an extension either. They are part of the core of how you should build your website from the ground up.

You can compare it with building a house. Before you start laying the bricks, you have to make sure you have a strong foundation, suitable to build on. If the foundation is not right, your roof will start leaking, the walls will start cracking and eventually there will be a lot of painful fixes to be made further down the line.

> PWAs are part of the core of how you should build your website.

In the end, PWAs are about embracing a mindset that focuses on making your website performance radically better. They should always be part of a broader web strategy that aims to deliver a consistent and engaging experience across all channels, whether it's a browser or native app.

It's not the tech, it's the house you build with it.

THE PROOF IS IN THE ~~PUDDING~~ RESULTS

PWAs can provide higher user engagement, lower bounce rates and eventually more conversions by giving your customers a better experience. It's no wonder that PWAs have piqued marketers' interest. But don't take our word for it, the facts speak for themselves.

ALIBABA

saw a 76% increase in total conversions across browsers after upgrading their site to a PWA.

OLA

built a PWA which loads in 3 seconds even on 3G networks and is only 200KB compared to their 60MB native app. This resulted in 30% higher conversions compared to their native app and 68% increase in mobile traffic.
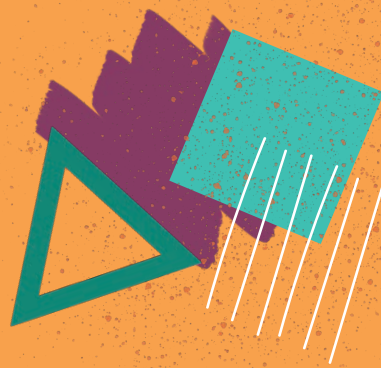
TWITTER

Twitter Lite's PWA has been a hit with users and saw a 75% increase in tweets sent, 20% decrease in bounce rate and 65% increase in pages per session.

DPDK also embraces PWAs in every web-based project for clients and here are some of our most exciting success stories.

APOTHEEK.NL

CHALLENGE

Apotheek.nl is the biggest Dutch platform for finding up-to-date medicine information. Their native app was costly to maintain and they were looking into alternatives.
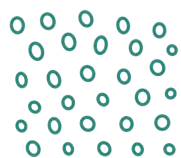
SOLUTION

DPDK refactored the front end of Apotheek.nl to a PWA with a strong focus on offline support, eliminating the native app completely. The website has native app functionalities such as the possibility to install Apotheek to your home screen and Camera Web API integration to support taking photos of medicine barcodes to find up-to-date information even faster. Offline support is also integrated and includes specific checks on functionalities like downloads that work online and offline.

OUTCOME

The momentum and growth of the website has been phenomenal. Apotheek.nl gets 1.7 million visitors a month, lands as number one in search engines and won site of the year multiple times at a fraction of the costs.

APOTHEEK.NL

WATERSTORING

CHALLENGE

Waterstoring.nl is a Dutch platform showing water outages and planned maintenance for multiple water companies in the Netherlands. In the event of big disruptions, their website traffic was overwhelming and the site's loading time took too long.

SOLUTION

DPDK developed a brand new front end with the PWA mindset. We set explicit goals for load speed and user engagement to deliver a more robust experience. The PWA has native app-like features such as offline support and the possibility to install Waterstoring to your home screen. We are currently developing the push notifications feature, so that users can retrieve updates on incidents.

OUTCOME

The website's uptime has significantly increased to 99.99% and has a number one SEO ranking.

6 - The proof is in the results
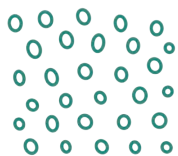
WATERSTORING

FORWARD YOU
Customer portal

CHALLENGE

Forward You (FWU) is a cutting-edge tech-financial and needed a portal that gave customers up-to-date information and the option to manage their accounts online. It was crucial to design a user-friendly and seamless experience that simplified administrative and maintenance processes.

SOLUTION

The platform has been built as PWA to make sure users can install this to their homepage as every financial app should be within easy reach for users. Users also get an automatic notification when a new version is available, so that they can 'update' their version without needing to go to an app-store.

OUTCOME

Customers deeply engage with the portal and the ranking in search visibility has dramatically increased.
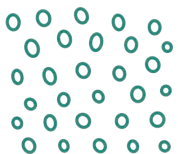
FORWARD YOU
Customer portal

WHAT ARE YOU WAITING FOR? PWAs ARE ONLY GETTING BETTER!!

The PWA revolution started 5 years ago. It's not one of those hypes or trends that will go away anytime soon. PWAs are backed by tech giants like Google, Microsoft and Apple and are here to stay. They are only getting better with new features released at lightning speed.

Every day that you start embracing PWAs, you will notice better indexing, more domain authority and trust from parties like Google. Not to speak of gained and retained customers, because of better website performance.

We have been transforming brands through exceptional digitalism for over 20 years. Website performance is a key pillar that should not be overlooked. PWAs are not even a question for us anymore, they are ingrained in our DNA and part of our core in how we deliver websites. Our advice - make PWAs part of your superpower too.

Ready, set, deploy.

MAKE PWAs PART OF YOUR SUPERPOWER!

+ Don't hesitate to get in touch and see where we can take you.
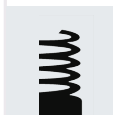
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ABOUT THE AUTHOR

Bill Marks is a subject matter expert in IT, data and everything digital. He has over 20 years of experience in the technology industry. As Chief Technology Officer, he is responsible for tech development and making sure we deliver the best digital experiences. Next to his deep love for exceptionally well designed digital products and services, Bill also likes music and fast-paced sports. His dream is to one day make his own beats and produce a full blown track.

Bill

ABOUT DPDK

20 years of transformation, change, innovation, and adaptation. We saw tech emerge and disappear, trends come and go and customer expectations change and grow.

Today more than ever, our clients count on us to be new every day. As an innovation partner, they rely on our experience and expertise dealing with continuous transformation and resilient adaptation. We help them answer and exceed customer expectations in a hyper-personalized landscape, keep them on the offense, and have their brand differentiate through customer experience.

From 20 years till now, and from offices in Rotterdam, New York, and San Francisco, we can proudly say we are still living our mission:

Transforming brands through exceptional digitalism.