

# THE ANATOMY OF PROGRESSIVE WEB APPS AND HOW TO USE THEM

**PROGRESS WEB APPS (PWAS) ARE HERE, AND THEY MAY BE THE KEY TO DELIVERING WINNING MOBILE EXPERIENCES THIS 2017.**

By utilizing modern web capabilities, PWAs delivers app-like user experiences to the mobile audience. Google describes them as fast, engaging, and guaranteed to work regardless of the user's network conditions. In short, they are everything a mobile user would ask for.

**HERE'S EVERYTHING YOU NEED TO LEARN ABOUT PWAS:**

## WHAT'S INSIDE A PROGRESSIVE WEB APP?

Take note that a PWA can be any site that has app-like features. To help publishers leverage this technology, Google published a simple checklist that describes what PWAs should aim to be:

### ALL PAGES SHOULD BE 100% RESPONSIVE.

NATURALLY, YOUR SITE NEEDS MOBILE RESPONSIVENESS TO CATER TO TABLET AND SMARTPHONE USERS.

### THE WEBSITE LOADS OVER HTTPS.

BY USING THE HTTPS PROTOCOL, YOU CAN ESTABLISH ENCRYPTED CONNECTIONS BETWEEN USERS AND THE WEB SERVER. THIS ALSO ENABLES THE USE OF SERVICE WORKERS.

### USE "SERVICE WORKERS TO LOAD PAGES EVEN WHILE OFFLINE.

THESE ARE SCRIPTS THAT BROWSERS RUN IN THE BACKGROUND. ADDITIONALLY, THEY MAKE APP-LIKE FEATURES SUCH AS SYNCHRONIZATION AND PUSH NOTIFICATIONS POSSIBLE.

### SEAMLESS PAGE TRANSITIONS.

A GOOD STRATEGY IS TO UTILIZE PLACEHOLDERS FOR CONTENT AS YOU MOVE TO THE NEXT PAGE. A LOADING ANIMATION PROMPTS USERS THAT THE SITE IS CURRENTLY FETCHING INFORMATION.

### COMPATIBLE WITH ALL MOBILE BROWSERS.

PERFORM INDEPENDENT TESTING ACROSS POPULAR BROWSERS SUCH AS MICROSOFT EDGE, CHROME, OPERA, FIREFOX, AND SAFARI.

### OPTIMIZED FOR TOUCH.

A PWA SHOULD FEEL LIKE A NATIVE MOBILE APP BY PROVIDING TOUCH INTERACTIONS. SOME EXAMPLES INCLUDE TOUCH FEEDBACK, GESTURES, AND SCROLLING.

INTEGRATE APIS FOR IMPORTANT TASKS. APIS SUCH AS THE CREDENTIAL MANAGEMENT API AND THE PAYMENT REQUEST API MAKE IT EASY FOR USERS TO ACCESS EXTENDED FEATURES OF YOUR PWA.

FAST TO LOAD EVEN WITH A 3G CONNECTION. USE PAGESPEED INSIGHTS FOR RECOMMENDATIONS ON HOW YOU CAN IMPROVE PAGE LOADING SPEED.

### EVERY INDIVIDUAL PAGE HAS ITS OWN URL.

THIS WILL IMPROVE THE SHAREABILITY OF YOUR CONTENT ON SOCIAL MEDIA APPS.

### THE SITE CAN BE ADDED TO THE HOME SCREEN.

JUST LIKE A NATIVE APP, A PWA MUST BE ACCESSIBLE WITHOUT HAVING TO OPEN A MOBILE BROWSER. THIS CAN BE DONE BY CREATING A WEB APP MANIFEST, WHICH ALLOWS YOU TO SET AN ICON AND NAME.

## PROGRESSIVE WEB APPS BY THE NUMBERS

Still not convinced that Progressive Web Apps are the future of mobile marketing?

These case studies will make you think again:

### FLIPKART TRIPLES AVERAGE SESSION TIME WITH A PWA<sup>[1]</sup>



AFTER COMBINING THEIR WEBSITE AND NATIVE APP INTO ONE PWA, INDIA'S BIGGEST E-COMMERCE BRAND ACHIEVES **40% HIGHER REENGAGEMENT RATE**, **70% BOOSTED CONVERSION RATE**, AND UP TO **3X MORE TIME SPENT ON THEIR WEBSITE**.

### 5MILES CUTS BOUNCE RATE BY HALF WHILE BOOSTING CONVERSIONS BY 30%<sup>[2]</sup>



IN ADDITION TO IMPROVING THE USER EXPERIENCE, 5MILES' PWA FEATURED THE "ADD TO HOME SCREEN" FUNCTION, WHICH LED TO **30% HIGHER CONVERSIONS**. THE NEW PROGRESSIVE WEB APP ALSO **CUTS THE SITE'S BOUNCE RATE BY 50%**.

### 11.5% OF VISITORS DOWNLOAD PWAS<sup>[3]</sup>



A GOOGLE CASE STUDY REVEALS THAT **11.5% OF VISITORS CHOOSE TO DOWNLOAD A PWA'S HOME SCREEN ICON** - MUCH HIGHER THAN AVERAGE CONVERSION RATES FOR EMAIL SUBSCRIPTIONS AND ONLINE STORE PURCHASES.

### JUMIA GETS 9X MORE CONVERSIONS FROM ABANDONED CARTS<sup>[4]</sup>



JUMIA, AFRICA'S LEADING E-COMMERCE SITE, GOT **9X MORE CONVERSIONS** FROM ABANDONED CARTS **USING PUSH NOTIFICATIONS** - ONE OF THE CORE FEATURES OF PWAS. THEIR PUSH NOTIFICATIONS GENERATED A **CONVERSION RATE OF 7.85%**, MUCH HIGHER THAN THEIR NATIVE APP'S 4.5%.

## YOUR MOVE

COMPANIES AND MOBILE USERS ALIKE ARE NOW REAPING THE BENEFITS OF PWAS. AS A BUSINESS, YOU NEED TO EMBRACE NEW TECHNOLOGY AND GIVE YOUR AUDIENCE SOMETHING FRESH. **IT'S YOUR TURN TO LAUNCH YOUR OWN PWA DEVELOPMENT PROJECT.**

### REFERENCES

1. Google Developers - "Flipkart triples time-on-site with Progressive Web App"
2. Google Developers - "5miles"
3. InfoQ - "Can Your Company Benefit from a Progressive Web App?" (November 7, 2016)
4. Business.com - "Progressive Web Apps Increase Conversion Rates: What You Need to Know" (December 2, 2016)

zeolearn

WWW.ZEOLEARN.COM