PHUNWARE

USING

LOCATION-AWARE TECHNOLOGIES

TO BRING NEW LIFE TO AN UNDERPERFORMING APP

So you have a **MOBILE APP,** but it's not performing as you hoped it would.

That's unfortunately not unusual at all. While mobile app usage continues to rise rapidly—it increased 76 percent in 2014,[1] and the amount of time people spend using apps has increased by 21 percent[2] since last year—the percentage of apps that get used only once remains at about 20 percent,[3] which means that one in five apps get abandoned pretty much immediately after they are downloaded.

This is an improvement over previous years, showing that users are adopting and using branded apps more than in the past. It also means you have to take steps to ensure that your app is engaging and valuable enough to keep users using it and coming back for more—if you don't want it to be one of the many apps that ends up getting deleted or ignored.

Evaluating Potential Issues

You'd probably like to know why your app is underperforming and what you can do to fix it. To determine when, where and why your customers are disengaging, you'll need to evaluate your current app from the user's point of view. According to Inc., the top reasons users delete apps are:[4]

1. **Technical issues:** It's crashy, buggy or slow.
2. **Unclear value:** Users aren't convinced of the app's value proposition.
3. **Poor UX:** It's confusing and frustrating to use.
4. **Too many features:** It tries to do too many things and does none of them well.
5. **Excessive registration process:** Users have to spend too much time putting in their information before they get to use the app.
6. **Not enough content:** Users won't engage if there's nothing to see.
7. **Intrusive in-app purchases:** They're frustrating and annoying if not handled carefully.

We would add these reasons as well:

8. **Outdated feature sets**: The app doesn't take advantage of the latest technologies.
9. **Stale design:** It looks unattractive or isn't optimized for users' devices.
10. **Excessive data or battery usage:** It drains users' data plans and/or batteries.

Are you guilty of any of these common mobile app sins? If your app isn't getting used much and you aren't hitting your download target numbers, chances are very high that you are. But the good news is that you may be able to improve your app's performance significantly without having to scrap it and start over from scratch.

Assuming your app is functional and offers at least basic value, you could give it a tremendous boost just by addressing number 8 above: outdated feature sets. If you're not taking advantage of the latest mobile capabilities, such as location-based technologies, it's an easy win to add these features to your app. That alone can breathe new life into a stale, humdrum mobile application.
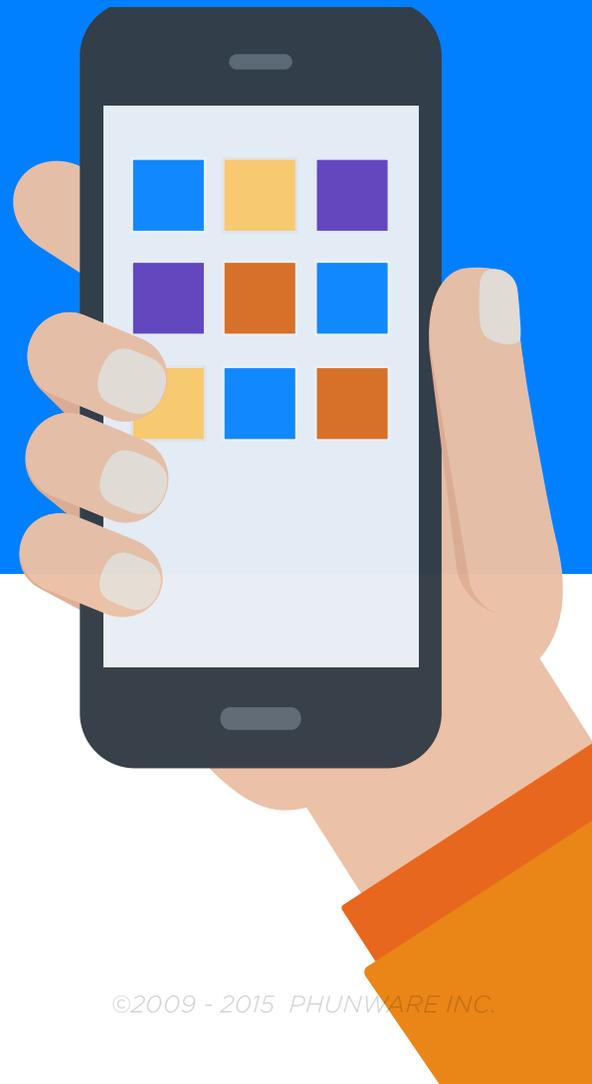
Why It's Worth It to Enhance (or Improve) Your App

Modern organizations of all kinds, from media and entertainment to hospitals to stadiums and airports, have to offer mobile capabilities to stay competitive. With the right technology in place, native applications can deliver personalization capabilities across targeted real-world locations ranging from a neighborhood to a business's brick-and-mortar locations, down to a shelf, stadium seat or restaurant table.

INCREASE ENGAGEMENT

App users have shown a strong preference for the ability to research their surroundings and complete mobile transactions while visiting an establishment. For instance, 75 percent of smartphone owners use their phones to research restaurants, look up directions and purchase theater tickets while traveling.[5] Businesses that do not engage with mobile interactive tools are missing the chance to fully connect with their customers.

INCREASE CUSTOMER LOYALTY

An immersive mobile application experience can increase app user retention by allowing you to personalize app content to keep users coming back for more. Mobile apps can even help you keep track of how frequently your app users have visited your locations and generate targeted rewards for them—even without the integration of a custom VIP program.

INCREASE REVENUE

Many organizations are missing out on revenue-generating and loyalty-building opportunities because they fail to promote specials in a way that resonates. A mobile application can help them capitalize on both types of opportunity by delivering location-aware, targeted content to app users at a relevant time and place. It also gives users high-value services that optimize operations by bypassing check-in line at hotels, checkout lines at stores or concessions lines at stadiums. Other app features can help brands improve operations by streamlining payment processes, monitoring line wait times and user pathing between locations and more.

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Mobile Web vs. Native Mobile Applications

It's important to note that you shouldn't just extend your desktop site onto mobile. Mobile is a new medium that requires a new strategy. Many existing branded mobile applications are simply adaptations of the brands' existing mobile websites for a smartphone's operating system—mobile-optimized content. Unfortunately, these applications often have low adoption and engagement rates due to their limited functionality.

In fact, apps dominated mobile web in 2014, accounting for a staggering 86% of mobile time spent.[6] Apps have the advantage of being native to the device, which means they can leverage smartphone and tablet features like Bluetooth, GPS, camera and more.

LEVERAGING LOCATION-AWARE MOBILE CAPABILITIES

One of the primary differentiators of next-generation native mobile applications is the incorporation of location-aware technology such as Bluetooth, beacons, GPS and geo-fencing. Native mobile apps that tap into these capabilities allow brands to implement a location-based marketing (LBM) strategy and connect with mobile app users in the context of their daily lives. By taking advantage of location and push notification capabilities built into smartphones, you can learn more about your customers and reach them more effectively than ever before.

With LBM capabilities, you can use data-based personalization to target users more strategically through your app. For example, you could leverage users' location history, past purchase behaviors, loyalty program information and shopping cart information to deliver the right message to the right person at the right time.

A BRIEF LOCATION TECH PRIMER

What is GPS?
The Global Positioning System, or GPS, is a satellite navigation system that provides location information pretty much anywhere in the world. You can use GPS to create geo-fences (defined geographical boundaries within a several-mile radius) so you know when users enter or exit a particular zone and can send appropriate notifications and offers accordingly.

What is Wi-Fi?
Wi-Fi is a wireless networking technology that allows computers and other devices to communicate over a wireless signal. Wi-Fi requires users to consent to a connection when they enter its area, but it can be quite precise in a limited area.

What are beacons?
Beacons are small wireless transmitters that emit a signal recognized by Bluetooth-enabled devices within a very small range—usually a few feet. They are low-cost and easy to deploy almost anywhere, minimize network traffic, and can be precisely targeted to an exact location.

Which location tech should you use?
That depends on the nature of your organization and the goals you're trying to accomplish with your app. As a general rule, the best choice is a combination of location-aware technologies, such as beacons and GPS together, for optimal results.

Use Cases for Location-Enabled Mobile Apps in Different Industries

Organizations across numerous industries are already taking advantage of the potential of location-aware technologies in native mobile applications. Here's a snapshot of how some market leaders are engaging their customers and driving revenue with a branded mobile app:

AIRPORTS

Many cutting-edge airports are launching their own apps to improve and streamline the travel experience. These apps give passengers in-airport mapping and wayfinding, flight tracking, restaurant and shopping information, and more.

Fort Lauderdale-Hollywood International Airport will soon launch such an application to help passengers track travel information and make the most of on-premises retailers and other services through special alerts, promotions, and wayfinding services. For passengers, the app will streamline the airport experience, help with navigation and enable real-time promotions. For the airport, it will generate extra revenue, improve customer communications and increase passenger loyalty.

ENTERTAINMENT VENUES

For event producers and franchise owners, keeping fans engaged and committed is crucial to maintaining and growing the business. Location-enabled mobile apps enable venue owners and event producers to create a compelling, satisfying and exciting mobile experience.

WWE did just that for their recent WrestleMania 31 stadium event, which attracted over 77,000 attendees and was the highest-grossing WWE event ever.[7] With the WrestleMania 31 app, fans were able to access schedules and receive location-based notifications about events, use venue maps and turn-by-turn directions for wayfinding, receive beacon-triggered trivia information, access content about WWE Superstars and newcomers and much more. The app was tailored exactly to the stadium in which this event occurred, so it offered real value to fans and producers throughout the week-long event.

SHOPPING CENTERS AND RETAIL STORES

Macerich, a chain of malls throughout the United States, uses a master application with customized content for each location to help guide and engage its customers. The application helps users locate stores, restaurants and services with a turn-by-turn wayfinding system and parking spot availability map, and will soon provide customized location-aware promotions and alerts when visitors walk past specific shops.

Retailers of any size can also make use of the location-aware apps. For instance, when shoppers approach a new in-store display, an app can trigger pop-up videos, coupons or other information related to the merchandise. A branded app can help retailers achieve business goals like driving in-store traffic, increasing revenue and demonstrating ROI, driving online sales through mobile, and attracting shoppers from competitors.

LUXURY RESIDENCES

Mandarin Oriental Hotel Group, a multinational luxury hotel and residence group, uses a mobile app to enhance the living experience for residents at its luxury residential properties worldwide. The app provides streamlined resident services, such as the ability to submit work requests, manage lists of approved visitors and make reservations at on-premises restaurants and spas. It even gives residents real-time alerts when a visitor or package arrives.

Luxury properties can differentiate themselves from competitors by adding location-aware capabilities to their apps to trigger welcome messages when residents step into the building, spa promotions when they walk into the pool area, yoga invites when they arrive in the gym, etc.

HEALTHCARE

Confusing navigation in medical facilities, revenue lost to missed appointments, Medicaid reimbursements tied to patient satisfaction—all of these are significant challenges for hospitals. Healthcare providers, particularly large hospitals and clinic systems, use mobile apps to engage with patients before, during and after each visit to improve patient experience.

Hospital apps, such as the one being used by Dignity Health (the fifth-largest health system in the United States), can provide real-time indoor navigation for improved wayfinding in the form of a portable, up-to-date digital guide offering turn-by-turn directions from the parking lot to the exam room to the pharmacy and back. Hospital apps can also provide appointment and prescription reminders, information about follow-up care, 24/7 access to hospital and health information and more. All of this makes patients and caregivers feel more calm, respected and welcome in an environment that can be stressful for many. From the hospital's perspective, it reduces no-shows, increases patient loyalty and keeps revenue on track.

Should You Work on Your App In-House or Outsource It?

Because mobile app development requires a highly specialized skillset that most organizations' in-house staff don't have, is expensive and time-consuming, and carries some risk, outsourcing your mobile app development to a firm that specializes in it can be a very strategic decision—one that saves you time, hassle and money while yielding a better-quality product. Here are a few advantages of letting someone else handle your mobile app development:

1. **Fixed costs:** You can establish requirements for a specific scope and delivery.

2. **Less lag time:** An outside team can usually start immediately.

3. **Synergy:** An established team will have a solid working relationship with each other and with the required technologies.

4. **Accountability:** A good mobile provider will give you a solid contract and scope of work, with clearly defined responsibilities and terms. If a mistake or delay occurs, you will have a dedicated account rep to address the problem. There's a lot less to worry about.

5. **Access to plug-and-play features and modules:** Many app features and modules are relatively standard (although they do undergo frequent updates). It's how you use them that makes the app unique and special. An experienced app development team will have an existing library of these standard products already tested and optimized. There's no need to build every feature from scratch when you can simply customize a proven solution. This saves time and money while ensuring best app performance.

6. **Greater experience and expertise:** Because of their focus on mobility, an outsourced team will be on top of the latest trends and technologies. They can share best practices gained from extensive experience and ensure that your app is in line with your vision and your target audience. A dedicated mobile expert can remove the guesswork and put your company and your app in the best possible situation to succeed.

7. **Options:** You can outsource part or all of your app development or improvement. You can split the work, outsourcing iOS development while keeping Android in-house (or vice versa). You can use outsourced staff augmentation to fill gaps in your in-house development strategy. Or you can outsource the app discovery process, letting third-party pros develop your roadmap.

Phunware has built location-enabled apps for businesses across the industry spectrum, from airports to retail, residential, healthcare, entertainment and more. We offer a modular customer engagement platform, a catalog of pre-built vertical solutions and the services that support them both. If your goal is to breathe new life into an existing app or extend its reach with location-based marketing, Phunware offers plug-and-play technology, scalability and delivery expertise. Contact us today to discuss how location tools can take your app to the next level.

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