

Mobile App Optimization

Create an App Users Love

The ultimate guide to mobile experiences that delight, engage, and keep your users coming back for more

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Introduction

With 1.2 million apps in the Apple Store and 1.3 from Android, it can be hard to stand out. And first impressions are only the beginning, considering that 80–90% of downloaded apps get used once and then deleted.

Today, best-in-class apps are meticulously focused on building lasting relationships with their users. Users who love an app—those with a deep level of engagement on a regular basis—are more likely to rate, recommend, and pay for its services. A highly engaged user base is invaluable to your app's success.

So how do you create an app users love? One that engages them, delights them, and keeps them coming back for more? It's all about delivering optimized experiences at every tap along the way. We've created this guide to help you do just that.

Inside, you'll learn:

- How to create an unforgettable first impression and improve user acquisition via app store optimization
- Tips for getting users to share the love, with positive reviews, ratings, and social shares
- How to take action and deploy changes more quickly than ever before, with a new approach to the app store review process
- Winning approaches to user onboarding flow and user experience
- More ways to continue engagement with push notification and messages

What Is Mobile App Optimization?

From discoverability and onboarding, to retention and engagement, best-in-class app teams use optimization to convert more users at each stage of the mobile customer journey. Mobile app optimization allows teams to collect data about user behaviors, using methods like A/B testing, and use that data to serve up experiences catered specifically to their

How to A/B Test Your Mobile App



Mobile A/B testing is the process of running a controlled experiment comparing one or more variations of an app against the original, with the goal of improving a specific metric, such as taps, engagement, or in-app purchases. The experiment is delivered to a selected percentage of the application's install base. App users are randomly distributed between the original and variation experiences without knowing they are part of a test. Once a statistically significant difference in user behavior emerges, the results of each variation are compared to determine which performed best against the predetermined goal.

This method can be used to test changes across any aspect of an application where a measurable goal can be improved, including user interface (UI), onboarding flow, content and messaging, and many more. For example, testing changes to an app's first time user experience, or onboarding flow, would help determine what factors improve conversions through each step of the onboarding process and will lead to increased retention over time.

Within your app, nearly every element can be altered, tested, and measured with the goal of improving conversions.

users' unique needs and preferences. This process of experience optimization helps teams achieve key business goals, such as engagement, retention, and monetization.

Teams who focus on experience optimization can operate more quickly and efficiently than ever before. After collecting information about users, they can deploy immediate changes to their app, without waiting on the app store review process or other barriers. Testing and optimization ensures team members focus their time building experiences that are proven to convert. Plus, it's easy to demonstrate return on investment (ROI), because tests are created with a quantifiable goal in mind and results are easy to track and measure.

“Your assumptions are often wrong and how you expect people to use your app is actually not how they use it at all. When you're optimizing your app you can see that, iterate on it, and make a more usable product.”

— **Ben Cole**, MAC

The background of the slide is a solid red color with a repeating pattern of various social media and technology icons in a lighter red shade. The icons are arranged in a grid-like fashion, with some icons appearing more frequently than others. Recognizable icons include Twitter, Pinterest, Facebook, Google+, YouTube, Tumblr, Apple, Bebo, Vimeo, RSS, LinkedIn, Blogger, Dribbble, SoundCloud, Yahoo!, Windows, Amazon, Android, Instagram, Nextdoor, and a triangle icon. Other icons include a heart, OS, a cloud, WordPress, Digg, Slurp, eBay, a camera, P, a flag, a checkered flag, and a magnifying glass.

Section 1

Optimize User Acquisition

Make Your App More Discoverable

How discoverable is your app? App store optimization (ASO) is the equivalent of search engine optimization (SEO) for mobile apps. The goal is to make it easy for users to find your app in the app store through careful selection of title and keywords. In addition to being the most important factors for ASO, the fact that the title and keywords can be modified easily means that you can regularly optimize them.

But that's not to say title and keywords are the only things that matters. Best-in-class apps focus on a number of factors to improve performance in the app store.

**They're looking for you.
So help them out.**

63% of Android and iOS users have used search to discover a new app. Make it easy for them to find you by focusing on app store optimization.

**Source: Nielsen*

A More Nimble App Store Approach: Quick Content Fixes & Phased Rollouts

For mobile teams, one predominant pain point is the app store review cycle. The good news is, if you're using an optimization platform, you have the ability to be more nimble. Using the same platform with which you test and measure the performance of your app, you can push changes out to users, or a subset of users, immediately.

How does this look in action? Let's say you're a travel app. Through testing, you discover that your primary CTA "Let's go!" is not converting well; while a variation CTA "Book your trip now" is performing exceptionally better. Rather than

How discoverable is your app?

Improve user acquisition by optimizing these factors

ICON

Your icon is often the first impression users have of your app, so it's hugely important to get it right. Test it out even before releasing to the app store by purchasing ads on networks such as Admob, Google Adwords, and Facebook and test how users react to different versions there.

TITLE

In the app store, the same principle applies with your app name. You'll want to optimize your title with highly sought after keyword phrases. ASO tools such as Straply and Sensor Tower are great places to start with this process.

SCREENSHOTS

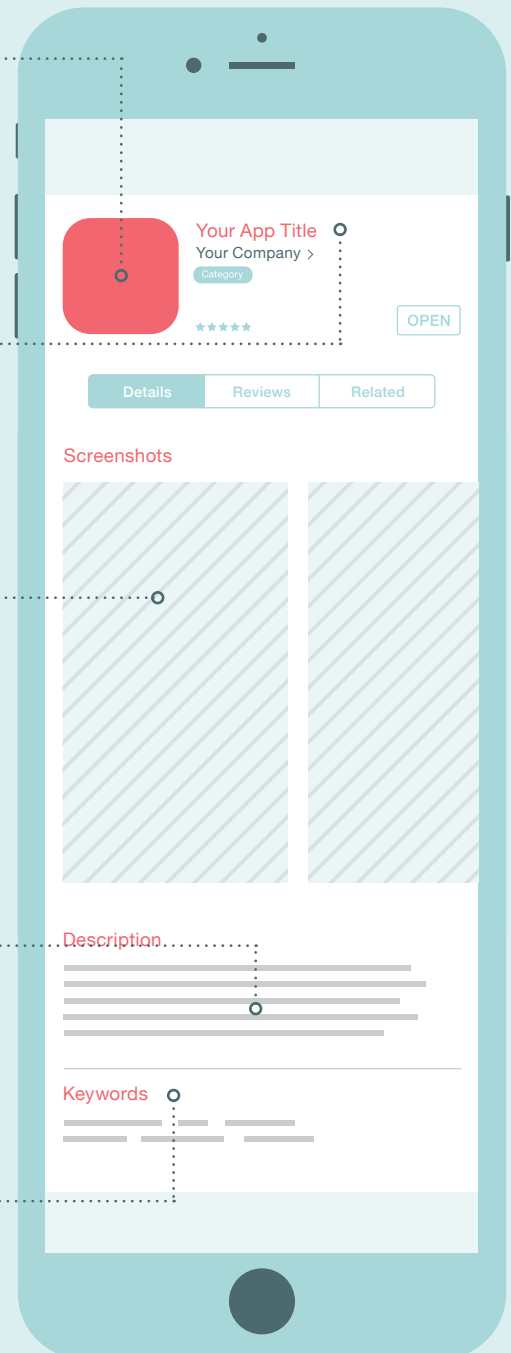
While the term may imply a screen capture of your app, you should think of your screenshots as a banner advertisement. Besides the app icon, your app's screenshot is the strongest visual representation of your app, so you want to draw the user to download it. Just like the app icon, you can test using traditional banner ads to see which screenshot yields the highest click throughs.

DESCRIPTION

A more compelling description means more app installs, period. But first you need to understand what compels your users in the first place. Test out different options to find out what resonates and leads to more installs.

KEYWORDS

You can test keyword and keyword placement to improve your app's ranking in search results. While the rules that apply to keyword rank will change over time, this is still a good place to iterate and apply an "always be testing" mentality.



wait on app store reviews or for users to upgrade to the latest version of your app, you can push the optimal CTA out to all users of your app immediately. No action required on their end. This results in a better user experience for them and, ultimately, more revenue for your business.

Using this same tactic, you can test new features and releases to a subset of your user base before submitting them for app store approval. This phased rollout process is made possible through Code Blocks, which encapsulate a new experience into a conditional code statement that allows one to deliver that experience to a controlled percentage of an app's install base.

Advanced feature rollouts save app teams time and resources, ensuring they're building and deploying only features that actually convert.

Ratings & Reviews

Ratings and reviews—the quality and number—matter for an app's success. They're some of the most visible components of an app's listing and do influence a person to tap through or download. They also matter for optimizing your app store rankings. Recently, the number of ratings has become more influential in the app ranking algorithm. On average, the apps in the top 5 of any Top Chart have more than twice the number of ratings as apps in ranked between 6 and 10.



So what does this mean for you? It means you want as many users as possible to rate your app (and of course give good ratings). There are three elements to consider when experimenting with ratings: the when, the how, and the who. Try these test ideas to see what resonates best for your users.

When you ask:

- **TASK COMPLETION:** There are moments in your app that illicit a sense of accomplishment from people. The time you ask for a rating should map to points when users feel satisfied or accomplished. Try asking after someone completes their first transaction or reads their first article.
- **TIME AND ENGAGEMENT:** The more time a user spends on your app, the more engaged they become. Try asking for a rating after a certain number of sessions or amount of time.
- **REPEAT ASKS:** Many apps only ask for a review once. Experiment with asking for a rating with each new update to see if it drives more users to submit positive feedback.

How you ask:

- **BE SPECIFIC:** Try asking people to rate a specific part or experience of the app. Giving people a certain prompt or some guidance might lead to not just an increase in reviews, but also an increase in the quality of reviews.
- **KNOW YOUR VOICE:** The brand and tone of voice for the app also plays a part in how you ask. Try wording your message differently—for example, buttoned up vs. playful, serious vs. humorous—to solicit more positive responses.

The Power of a Positive Review

More than 75% of users have downloaded an app just because of a positive review or recommendation

**Source: Foolproof UX.*

Pro-Tip: Make Customer Support More Visible

Oftentimes, users will leave a bad review when they can't resolve an issue with your app. Avoid this problem by making it as easy as possible for users to contact your team when something goes wrong, rather than leave a bad review.

Who you ask:

- **GET PERSONAL:** Try requesting ratings from certain user segments, like those who are actively engaged with your app. Just as your user base probably varies widely, your messaging should vary based on who you're prompting—you want your message to resonate with each user.

PROTIP: Make Customer Support More Visible

- Oftentimes, users will leave a bad review when they can't resolve an issue with your app. Avoid this problem by making it as easy as possible for users to contact your team when something goes wrong, rather than leave a bad review.



Section 2

Optimizing User Onboarding

Optimize Your First Time User Experience (FTUE)

Let's start with first time users. They've just downloaded your app and are ready to dive in, with some guidance.



Optimizing a first time user's onboarding experience can increase their lifetime value by up to 500%.

Mobile Apps See Major User Drop-offs

79% of users will use an app a second time, even after a lackluster first impression. However, only 16% will use it a third time. Optimization helps keep mobile users coming back for more at every stage of the user lifecycle.

Onboarding is the process of turning a first-time user into a repeat customer during their first interaction with your app. The goal is to hook, educate, and engage them quickly so they feel well-equipped (and excited) to continue using your app.

For many apps, the onboarding process includes a log-in and a dialog, guided tour, or tutorial.

Best practices for app onboarding:

You don't want to throw users blindly into your app. But when less is more, how do you create a first time experience that works? Here are some ideas to get you started.

- **STAY FOCUSED:** First time users might require guidance, but not information overload. Start with your value prop (keep it simple!) and move on to basic functionality from there. Help users remain focused throughout the process and make sure you give them the ability to opt-out of the onboarding experience at any point along the way.

- **SHOW, DON'T TELL:** Too much text during onboarding (or anywhere in your app) can be a turnoff, especially since many users don't learn this way. Try taking a "learn by doing" approach. Instead of text, focus on immersing users in an interactive app experience right off the bat. Interactivity allows users to work through the gestures they need to learn and then flow seamlessly into the app experience, to seek deeper engagement.
- **FRICTIONLESS LOGINS:** Logins are tricky. They account for a significant amount of drop-off in app usage, losing up to 56% of users. However, these days, most apps do require some sort of login. With these contradictory forces working against each other, it's important to make your sign-in process as frictionless as possible. Experiment with various login options – social login vs. email login vs. no login. You can also experiment with timing – when is the best moment to ask a user to log-in? Is it at the beginning of the process? Or after they've engaged for a certain amount of time?
- **MAKE IT REWARDING:** Interactivity is the first step here. The second, is indicating progress. Try showing users the number of steps in the process and how far they have advanced thus far. Providing a "light at the end of the tunnel" may encourage them to continue through the process.
- **ACHIEVEMENT UNLOCKED!:** Don't try to frontload every piece of information a user can possibly know about your app into the onboarding process. Instead, start with the basics. As users continue to engage with your app, phase in new information about more advanced features and functionalities. Reinforce what users have already learned and encourage them to dive deeper into the app to learn more.

- **LISTEN TO YOUR USERS:** The best practices outlined above are just that. They're a great starting point, but won't necessarily work for every app out there. That's why understanding your users' through quantitative methods (like testing and optimization) and qualitative research (like usability testing) is so crucial. The following exercise is a great starting point in that process.

EXERCISE

The First Time User Experience Tear-down

Usability testing is a great way to begin the optimization process, helping to identify pain points and friction across the user experience that can be tackled with mobile app optimization. This exercise will help you take a step back and look at your app through your users' eyes... and thumbs.

What you'll need

- Computer or Pen/Paper
- Users who are willing to provide feedback and have not yet used your app

Instructions

Have each user locate your app in the App Store and download it. Then, have them open the app. Watch as they make their way through the first time user experience. Throughout the process, take note of any areas of friction or places where they get caught up. Take note of how many steps it takes for them to get

where they wanted to go. Ask them follow-up questions about the experience afterwards. The more perspectives, especially fresh ones, the better.

1. How did you feel about the app onboarding experience?
2. Was a log-in or account creation necessary?
3. Did it take longer, shorter, or about the same amount of time you would have expected?
4. How did you feel when you were finished?
5. Did you find the process helpful? How so or how not?
6. Did you encounter any distractions or confusion along the way? If so, what?
7. What did you find enjoyable about the experience?
8. What would you change?
9. Do you feel ready and eager to use the app right now?



Section 3

Driving Engagement Retention

Optimizing App Engagement and Retention in 3 Simple Steps

The most important factor in getting app engagement right is to create a user experience that sticks.

Mobile users download apps to make their lives easier or more enjoyable, and with so many apps out there, they have pretty high standards. Common reasons for users becoming disengaged or uninstall an app include: difficult to use, bad user interface, and performance and stability.

Optimization can help you identify and address these areas of frustration, ultimately creating an experience that keeps users coming back to your app. Consider these three steps when optimizing for engagement and retention.

“In order for a mobile app to truly succeed, you must have a customer engagement strategy in place. Be sure that every new user fully understand the value of your app with a comprehensive onboarding strategy.”

— **Bobby Emamian**, CEO and Co-Founder of Prolific

Some categories are stickier by nature

Sports and Games apps have the highest app abandonment rate of all categories, while Weather and Social Networking apps have the lowest.

**Source: Localytics*

Step 1: Optimize Usability

Mobile users are extremely goal-oriented. To keep their attention, make it as easy as possible for users to complete

their desired task quickly and seamlessly.

- **Test your onboarding and first time user experience.** See Section 2 for test ideas and best practices.
- **Optimize your calls-to-action (CTAs).** Within your app, CTAs should be clear and focused so users know exactly how to get to the next step. Experiment with CTA messaging, placement, and design to see what gets more users through your mobile funnel.

Step 2: Optimize UI

Users prefer apps that are both functional and aesthetically pleasing. Optimization can help you strike the right balance.

- **Test the flow of your app.** This will help you better understand how users move from one task to the next, and to make those transitions as seamless as possible.
- **Experiment with the look and feel.** What designs do your users find most pleasing to engage with?
- **Readability of content on your app is important.** Test placement and size of text to make sure users on their mobile device hear your message loud and clear. We also recommend experimenting with the amount of text overall – oftentimes on mobile, less is more.



Step 3: Optimize performance and stability

Nobody likes a buggy app. Optimization helps you deploy new bug fixes and features to users without waiting on app store review. This means, when you find a bug, you can act quickly to resolve it.

Increasing engagement with messaging & notifications

Optimizing your in-app experience isn't the only way to drive engagement. Let's talk messaging and notifications.

When executed correctly, targeted notifications to app users can enhance the user experience and drive engagement and revenue. But there's a time and place for everything. Our friends at Kahuna will explain further.

Just Because You Can Reach Users at Any Time Doesn't Mean You Should

By Adam Marchick, CEO at Kahuna

○.....○

Just because you can access your mobile users immediately and at all times, doesn't mean you should. In today's mobile-first world, brands must strike a balance. How do you communicate important information without causing unwarranted disruption to the user? Making sure that your push notifications arrive at the right time is a critical component.

Push notifications can help app teams increase conversions and engagement, but to do so, they must contain relevant, useful information for users.

What is a push notification?

There are two types of push notifications that every mobile app should be sending: transactional and engagement.

Transactional notifications deliver information that users need to receive at a specific time. For example, travel apps should use transactional push notifications to send a message about a flight update or gate change.

Engagement notifications deliver information that drives users to complete

key virtuous actions—for example, making a purchase, sharing on social, completing an onboarding event, and more. When crafted correctly, this type of push notification can have significant impact on long-term user retention, engagement, and lifetime value. The important thing to consider is every user is different, and users should only receive engagement push notifications that are uniquely personalized and relevant to them.

What makes a push notification effective?

Push notifications have become the primary tool for driving mobile engagement, and winning apps have learned to take advantage of the many levers they can pull to create and send push notifications that delight. These levers include:

User segmentation: Segmenting your users before you message them ensures that they receive information that is relevant and valuable to them. The old fashioned “spray and pray” approach to marketing is especially dangerous when applied to push notifications and often catalyzes users to disengage with the app.

Content, copy, and personalization:

Great message content represents valuable information that drives positive user behavior and inspires delight. Push notifications have the ability to catalyze immediate action, but users will only take action if the message itself is both relevant and compelling. Consider personalizing your notifications based on the specific behavior and preferences of each user.

Timing: A successful push notification strategy approaches message timing from the perspective of the end user. When would the user appreciate receiving the information conveyed in the push notification? Considering every user keeps a different schedule, the solution is to track user behavior and send the push notifications at the time when each user is most likely to engage with your app.

When optimized, these factors combine to drive results while protecting the user experience.

How do you evaluate effectiveness of push notification?

Now that you've architected a cohesive experience for your users, how do you know if the push notification is a success?

The basic formula for evaluating the effectiveness of a push notification is as follows:

1. Did the push notification drive users to take the desired action?
2. Did the push notification enhance and enrich the users' app experience?

Basic response tracking like open rates and click-throughs are not sufficient to gauge the effectiveness of the push notification.

Instead, set the right goals and make sure you have reporting capabilities that expose the positive and negative results from each notification. For example, there can be a tendency to track only positive metrics, and this is a big mistake. Tracking the potentially negative ramifications of a push notification (such as app uninstalls and push opt-outs) is the best way to know how users really feel about the push. When you are measuring this number in real time, it's easy to adjust or cancel any detrimental push notification campaigns before it's too late.

Conclusion

It's never too late for users to fall in love with your app.

Whether you're just getting started or you've had an app in the market for a while, building optimization into your strategy today is a sure fire way to drive improvements and reach business goals at each tap along the way.

From user acquisition to onboarding, to engagement and retention, experience optimization can help transform any app from average to unforgettable. It's time to create an app users actually love and an experience that keeps them coming back for more.

“To keep improving, we must constantly test different versions of Facebook with real people to even have a chance at creating the best possible experience.”

— **Boz**, Facebook 2012

A Blueprint for Mobile App Optimization

Learn more about how to acquire and retain mobile app users using the same approach employed by top app developers.

The Experience Optimization Playbook

What are best-in-class companies doing to optimize the experiences they deliver to customers? This guide contains strategies from Google, Upworthy, HubSpot, and more.

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To learn more about Optimizely,
schedule a live demo today at

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ABOUT OPTIMIZELY

Optimizely is the world's leading optimization platform, providing A/B testing, multivariate testing, and personalization for websites and iOS applications. The platform's ease of use empowers organizations to conceive of and run experiments that help them make better data-driven decisions. With targeting and segmentation using powerful real-time data, Optimizely meets the diverse needs of any business looking to deliver unique experiences to their visitors.

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